



# Annual Report

and Form 20-F for the year ended  
December 31, 2018, Royal Dutch Shell plc

PROVIDING ENERGY  
FOR A CHANGING WORLD



The text "PROVIDING ENERGY FOR A CHANGING WORLD" is displayed in large, glowing white letters against a red background. Each word is accompanied by a black line drawing icon: "PROVIDING" has a solar panel and battery icon above it; "ENERGY" has a fuel truck icon to its left; "FOR A" has an oil tanker ship icon above it; "CHANGING" has a construction worker icon to its right; and "WORLD" has a wind turbine icon to its right.



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### Cover image

Shining a light on our energy solutions. Showing the extensive range of our activities; from Upstream and Integrated Gas to Downstream. Demonstrating the importance it has on our day-to-day lives through a simple and direct iconographic approach.

Cover: Conran Design Group

Typesetting: DFIN

Printer: Tuijtel under ISO 14001



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# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## Form 20-F

### ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

Commission file number 001-32575

## Royal Dutch Shell plc

(Exact name of registrant as specified in its charter)

England and Wales

(Jurisdiction of incorporation or organization)

Carel van Bylandtlaan 30, 2596 HR, The Hague, The Netherlands

Tel. no: 011 31 70 377 9111

royaldutchshell.shareholders@shell.com

(Address of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act

#### Title of Each Class

American Depository Shares representing two A ordinary shares of the issuer with a nominal value of €0.07 each

American Depository Shares representing two B ordinary shares of the issuer with a nominal value of €0.07 each

1.375% Guaranteed Notes due May 2019

1.375% Guaranteed Notes due September 2019

4.3% Guaranteed Notes due 2019

Floating Rate Guaranteed Notes due 2019

2.125% Guaranteed Notes due 2020

2.25% Guaranteed Notes due 2020

4.375% Guaranteed Notes due 2020

Floating Rate Guaranteed Notes due 2020

1.75% Guaranteed Notes due 2021

1.875% Guaranteed Notes due 2021

2.375% Guaranteed Notes due 2022

2.25% Guaranteed Notes due 2023

3.4% Guaranteed Notes due 2023

3.5% Guaranteed Notes due 2023

Floating Rate Guaranteed Notes due 2023

3.25% Guaranteed Notes due 2025

2.5% Guaranteed Notes due 2026

2.875% Guaranteed Notes due 2026

3.875% Guaranteed Notes due 2028

4.125% Guaranteed Notes due 2035

6.375% Guaranteed Notes due 2038

5.5% Guaranteed Notes due 2040

3.625% Guaranteed Notes due 2042

4.55% Guaranteed Notes due 2043

4.375% Guaranteed Notes due 2045

3.75% Guaranteed Notes due 2046

4.00% Guaranteed Notes due 2046

#### Name of Each Exchange on Which Registered

New York Stock Exchange

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# Terms and abbreviations

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## Currencies

\$	US dollar
€	euro
£	sterling

## Units of measurement

<b>acre</b>	approximately 0.004 square kilometres
<b>b(./d)</b>	barrels (per day)
<b>boe(./d)</b>	barrels of oil equivalent (per day); natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel
<b>kboe(./d)</b>	thousand barrels of oil equivalent (per day); natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel
<b>MMBtu</b>	million British thermal units
<b>megajoule</b>	a unit of energy equal to one million joules
<b>mtpa</b>	million tonnes per annum
<b>per day</b>	volumes are converted into a daily basis using a calendar year
<b>scf(./d)</b>	standard cubic feet (per day)

## Products

<b>GTL</b>	gas to liquids
<b>LNG</b>	liquefied natural gas
<b>LPG</b>	liquefied petroleum gas
<b>NGL</b>	natural gas liquids

## Miscellaneous

<b>ADS</b>	American Depository Share
<b>AGM</b>	Annual General Meeting
<b>API</b>	American Petroleum Institute
<b>CCS</b>	carbon capture and storage
<b>CCS earnings</b>	earnings on a current cost of supplies basis
<b>CO<sub>2</sub></b>	carbon dioxide
<b>EMTN</b>	Euro medium-term note
<b>EPS</b>	earnings per share
<b>FCF</b>	free cash flow
<b>FID</b>	final investment decision
<b>GAAP</b>	generally accepted accounting principles
<b>GHG</b>	greenhouse gas
<b>HSSE</b>	health, safety, security and environment
<b>IAS</b>	International Accounting Standard
<b>IEA</b>	International Energy Agency
<b>IFRS</b>	International Financial Reporting Standard(s)
<b>IOGP</b>	International Association of Oil & Gas Producers
<b>IPIECA</b>	International Petroleum Industry Environmental Conservation Association (global oil and gas industry association for environmental and social issues)
<b>LTIP</b>	Long-term Incentive Plan
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OML</b>	oil mining lease
<b>OPEC</b>	Organization of the Petroleum Exporting Countries
<b>OPL</b>	oil prospecting licence
<b>PSC</b>	production-sharing contract
<b>PSP</b>	Performance Share Plan
<b>REMCO</b>	Remuneration Committee
<b>SEC</b>	US Securities and Exchange Commission
<b>TRCF</b>	total recordable case frequency
<b>TSR</b>	total shareholder return
<b>WTI</b>	West Texas Intermediate

# About this Report

The Royal Dutch Shell plc Annual Report and Form 20-F (this Report) serves as the Annual Report and Accounts in accordance with UK requirements and as the Annual Report on Form 20-F as filed with the US Securities and Exchange Commission (SEC) for the year ended December 31, 2018, for Royal Dutch Shell plc (the Company) and its subsidiaries (collectively referred to as Shell). This Report presents the Consolidated Financial Statements of Shell (pages 167-214), the Parent Company Financial Statements of Shell (pages 237-246) and the Financial Statements of the Royal Dutch Shell Dividend Access Trust (pages 251-255). Except for these Financial Statements, the numbers presented throughout this Report may not sum precisely to the totals provided and percentages may not precisely reflect the absolute figures, due to rounding. Cross references to Form 20-F are set out on pages 02-03 of this Report.

Financial reporting terms used in this Report are in accordance with International Financial Reporting Standards (IFRS). The Consolidated Financial Statements comprise the financial statements of the Company and its subsidiaries. "Subsidiaries" and "Shell subsidiaries" refer to those entities over which the Company has control, either directly or indirectly. Entities and unincorporated arrangements over which Shell has joint control are generally referred to as "joint ventures" and "joint operations", respectively. Entities over which Shell has significant influence but neither control nor joint control are referred to as "associates". "Joint ventures" and "joint operations" are collectively referred to as "joint arrangements".

This Report contains certain following forward-looking Non-GAAP measures such as free cash flow, capital investment and divestments. We are unable to provide a reconciliation of these forward-looking Non-GAAP measures to the most comparable GAAP financial measures, because certain information needed to reconcile those Non-GAAP measures to the most comparable GAAP financial measures is dependent on future events some of which are outside the control of the company, such as oil and gas prices, interest rates and exchange rates. Moreover, estimating such GAAP measures with the required precision necessary to provide a meaningful reconciliation is extremely difficult and could not be accomplished without unreasonable effort. Non-GAAP measures in respect of future periods which cannot be reconciled to the most comparable GAAP financial measure are calculated in a manner which is consistent with the accounting policies applied in Royal Dutch Shell plc's financial statements. All outlooks on financial metrics and/or alternative performance measures exclude the effect of the implementation of IFRS 16 *Leases*, which will take place effective as of January 1, 2019.

In addition to the term "Shell", in this Report "Shell Group", "we", "us" and "our" are also used to refer to the Company and its subsidiaries in general or to those who work for them. These terms are also used where no useful purpose is served by identifying the particular entity or entities. The term "Shell interest" is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in an entity or unincorporated joint arrangement. The companies in which Royal Dutch Shell plc directly or indirectly own investments are separate legal entities. Shell subsidiaries' data include their interests in joint operations.

This Report contains data and analysis from Shell's new Sky scenario. Unlike Shell's previously published Mountains and Oceans exploratory scenarios, the Sky scenario is based on the assumption that society reaches the Paris Agreement's goal of holding the rise in global average temperatures this century to well below two degrees Celsius (2°C) above pre-industrial levels. Unlike Shell's Mountains and Oceans scenarios which unfolded in an open-ended way based upon plausible assumptions and quantifications, the Sky scenario was specifically designed to reach the Paris Agreement's goal in a technically possible manner. These scenarios are a part of an ongoing process used in Shell for over 40 years to challenge executives' perspectives on the future business environment. They are designed to stretch management

to consider even events that may only be remotely possible. Scenarios, therefore, are not intended to be predictions of likely future events or outcomes and investors should not rely on them when making an investment decision with regard to Royal Dutch Shell plc securities.

Additionally, it is important to note that Shell's existing portfolio has been decades in development. While we believe our portfolio is resilient under a wide range of outlooks, including the IEA's 450 scenario (World Energy Outlook 2016), it includes assets across a spectrum of energy intensities including some with above-average intensity. While we seek to enhance our operations' average energy intensity through both the development of new projects and divestments, we have no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10-20 years. Although, we have no immediate plans to move to a net-zero emissions portfolio, in November of 2017, we announced our ambition to reduce the Net Carbon Footprint of our energy products in accordance with society's implementation of the Paris Agreement's goal of holding global average temperature to well below 2°C above pre-industrial levels. Accordingly, assuming society aligns itself with the Paris Agreement's goals, we aim to reduce the Net Carbon Footprint of our energy products, which includes not only our direct and indirect carbon emissions, associated with producing the energy products which we sell, but also our customers' emissions from their use of the energy products that we sell, by around 20% in 2035 and by around 50% in 2050.

We also refer to "Shell's Net Carbon Footprint" in this Report. This includes Shell's carbon emissions from the production of our energy products, our suppliers' carbon emissions in supplying energy for that production, and our customers' carbon emissions associated with their use of the energy products we sell. Shell only controls its own emissions but, to support society in achieving the Paris Agreement goals, we aim to help and influence such suppliers and consumers to likewise lower their emissions. The use of the terminology "Shell's Net Carbon Footprint" is for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries.

Except where indicated, the figures shown in the tables in this Report are in respect of subsidiaries only, without deduction of any non-controlling interest. However, the term "Shell share" is used for convenience to refer to the volumes of hydrocarbons that are produced, processed or sold through subsidiaries, joint ventures and associates. All of a subsidiary's production, processing or sales volumes (including the share of joint operations) are included in the Shell share, even if Shell owns less than 100% of the subsidiary. In the case of joint ventures and associates, however, Shell-share figures are limited only to Shell's entitlement. In all cases, royalty payments in kind are deducted from the Shell share.

The financial statements contained in this Report have been prepared in accordance with the provisions of the Companies Act 2006 and with IFRS as adopted by the European Union. As applied to the financial statements, there are no material differences from IFRS as issued by the International Accounting Standards Board (IASB); therefore, the financial statements have been prepared in accordance with IFRS as issued by the IASB. IFRS as defined above includes interpretations issued by the IFRS Interpretations Committee.

Except where indicated, the figures shown in this Report are stated in US dollars. As used herein all references to "dollars" or "\$" are to the US currency.

This Report contains forward-looking statements (within the meaning of the US Private Securities Litigation Reform Act of 1995) concerning the financial condition, results of operations and businesses of Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future

## About this Report Continued

expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Shell to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as "aim", "ambition", "anticipate", "believe", "could", "estimate", "expect", "goals", "intend", "may", "objectives", "outlook", "plan", "probably", "project", "risks", "schedule", "seek", "should", "target", "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this Report, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell's products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. Also see "Risk factors" on pages 15-20 for additional risks and further discussion. No assurance is provided that future dividend payments will match or exceed previous dividend payments. All forward-looking statements contained in this Report are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Each forward-looking statement speaks only as of the date of this Report. Neither the Company nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this Report.

This Report contains references to Shell's website and to the Shell Sustainability Report. These references are for the readers' convenience only. Shell is not incorporating by reference any information posted on [www.shell.com](http://www.shell.com) or in the Shell Sustainability Report.

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### DOCUMENTS ON DISPLAY

The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. All of the SEC filings made electronically by Shell are available to the public on the SEC website at [www.sec.gov](http://www.sec.gov) (commission file number 001-32575). This Report is also available, free of charge, at [www.shell.com/annualreport](http://www.shell.com/annualreport) or at the offices of Shell in The Hague, the Netherlands and London, United Kingdom. Copies of this Report also may be obtained, free of charge, by mail.

# Strategic Report

## Chair's message: Building trust in Shell

We are making good progress in shaping Shell into one of the best investment options for shareholders globally, while positioning it to thrive in the transition to a lower-carbon world. This progress is described in Ben's CEO review.

Our ongoing work to provide more and cleaner energy should increase recognition of the positive contributions that Shell can make to society over the decades ahead.

But our success in achieving these goals will depend largely on whether society trusts us.

Investors invest in companies they trust, governments allow trusted companies to operate and consumers buy things from people they trust. Trusted companies are also likely to attract and retain the brightest minds, helping to ensure the lasting vitality of the business.

Trust is clearly a virtuous circle. The question is, how can companies create and keep it? I believe this can only be achieved by everybody demonstrating unquestionable integrity – every day, in every way and everywhere we work.

Unquestionable integrity is essential for earning and maintaining the trust of customers, investors and wider society.

### PUBLIC TRUST

According to our independent research, Shell still enjoys high levels of public trust in many Asian countries, including China and India. But trust in the oil and gas industry has declined in some parts of the world, particularly in western Europe, over the last few decades. Shell is no exception.

Shell lost the trust of many investors in 2004, when senior executives misrepresented the size of the company's oil reserves. The company has been working to restore that trust ever since.

Earning trust takes time. Losing it takes no time at all.

That is why we invest a lot of time in raising ethical standards and underscoring the importance of absolute integrity for all our employees. We can never stop working to ensure that the highest ethical standards are always followed by all Shell staff around the world.

And, because we strongly believe that all leaders must set an example, in 2018 we introduced mandatory ethical leadership workshops for senior executives across our global operations. I took part in one such workshop in December 2018, together with fellow Board member Sir Nigel Sheinwald and several senior managers. It was a great opportunity to learn from each other about the challenges facing leaders at Shell.

Ethical considerations are a key part of discussions in the Shell boardroom. Over the last year or more, we have made a concerted effort to use the experiences of our Board members, gained from working in a variety of countries and industries, to identify ethical dilemmas that could arise from business opportunities.

Each member of our diverse Board brings invaluable perspectives to these discussions, blending experience from both the public and private sectors. To highlight the contributions of our three newest members, Roberto Setubal brings insights from Brazil, a major developing country. Ann Godbehere brings extensive mining, insurance and financial sector experience, and Catherine Hughes brings decades of experience in the oil and gas industry. The Board must scrutinise Shell's plans and actions from different points of view.

Unfortunately, as a result of a settlement agreement Shell entered into in 2011 in Nigeria for an oil block called OPL 245, we have seen Shell's name in news headlines around the world. This is a stark reminder that building trust requires more than just complying with the law. Trust is also about perception. If people perceive you as not sharing their values, concerns or hopes for the future, they are unlikely to trust you.

This has been a difficult learning experience for us, particularly in terms of how our behaviour is perceived. We are using this experience to remind all our employees that even the perception of wrongdoing can result in a loss of trust.

To gain and maintain trust across more than 70 countries in which we operate, we also need to ensure we always work safely, without hurting people or the environment, while rectifying problems that arise.

We are making good progress on improving the safety of our operations. For example, our process safety incidents were reduced by more than a quarter in 2018, compared to 2017. Our personal injury rate was our second-lowest on record, following a record low in 2017. But two people still tragically died while working for Shell in 2018. Our safety goal is zero injuries and incidents.

### TRANSPARENCY

Trust can only be earned and kept if people see that we share their concerns and hopes for the future. They can only see that if we are transparent about what we do and why we do it. Transparency goes beyond publishing financial results and executive pay figures. It is about being as open as we can with governments, customers and partners. On tax, for example, Shell has signed up to The B Team Responsible Tax Principles. These include being open about the entities the Company owns around the world, and why we own them.

The more transparent we are about our activities, the better equipped our investors, customers and wider society are to decide whether we are worthy of their trust.

Ultimately, we need to give them lots of reasons to trust us and no reasons to distrust us. Perhaps nowhere is this more important than for the 30 million daily retail customers who trust Shell to provide products they can rely on. We must live up to that trust every day.

## **Chair's message: Building trust in Shell** Continued

We want all our retail customers to strongly believe that, when they are filling up or charging their vehicles, we are providing all the products and services they need safely, efficiently and ethically. We want all our business customers to be equally sure of Shell. By constantly demonstrating the unquestionable integrity of our businesses, people and partnerships, we believe we can earn and keep their trust over the long term.

### **Chad Holliday**

Chair



The Board: Charles O. Holliday, Euleen Goh, Roberto Setubal, Jessica Uhl, Gerard Kleisterlee, Ann Godbehere, Sir Nigel Sheinwald, Linda G. Stuntz, Gerrit Zalm, Catherine J. Hughes, Ben van Beurden and Linda M. Szymanski (Company Secretary).

# Chief Executive Officer's review: Delivering on our promises

Shell delivered a very strong financial performance in 2018. We are continuing to make good progress in building a world-class investment case.

Higher oil and gas prices, combined with our ongoing work to improve the performance and competitiveness of our businesses, contributed to a sharp increase in cash flow from operating activities to \$53 billion in 2018. We are on track with our outlook of annual free cash flow of between \$30 billion and \$35 billion by 2020, at a Brent crude oil price of \$60 a barrel (real terms 2016).

We delivered on our promises for the year, including completing our \$30-billion divestment programme and starting up key growth projects, while maintaining discipline on capital investment. We paid our entire dividend in cash, further reduced our debt and launched our share buyback programme.

But 2018 was not all good news for us. Tragically, a contractor died at our Rheinland refinery in Germany and another died at an onshore well in the USA. I am deeply unhappy about these incidents and call on all Shell employees, contractors and suppliers to redouble their focus on safety.

## RESULTS

Income for the period was \$23.9 billion in 2018, compared with \$13.4 billion in 2017. Earnings on a current cost of supplies basis increased to \$24.4 billion, compared with \$12.5 billion in 2017. We distributed \$15.7 billion to shareholders in dividends in 2018.

After cancelling the Scrip Dividend Programme with effect from the fourth quarter 2017 dividend, our healthy free cash flow outlook and stronger balance sheet gave us the confidence to start our share buyback programme in mid-2018. We intend to buy back at least \$25 billion of shares by the end of 2020, subject to further progress with debt reduction and oil price conditions.

With the continued strengthening of our balance sheet, cash flows and our ongoing focus on capital efficiency, I am confident that we will do this while continuing to grow our portfolio.

We continued to deliver new projects, including the completion of an important chemical plant expansion in China and starting production from a deep-water development in the US Gulf of Mexico a year ahead of schedule. Overall, our production averaged 3.7 million barrels of oil equivalent a day in 2018, unchanged from 2017. Increased production from new field start-ups and ramp-ups, as well as lower maintenance activity, was offset by the impact of divestments and field declines.

Stronger crude oil and gas prices contributed to sharp increases in our Upstream and Integrated Gas earnings, while Downstream earnings fell slightly.

We continued to streamline our business – including the sale of our Downstream business in Argentina; Upstream interests in Iraq, Ireland, Norway and Oman; and Integrated Gas interests in Malaysia, New Zealand and Thailand.

The progress of our divestments has helped us to reduce net debt, with gearing standing at 20.3% at the end of 2018, down from 25.0% in 2017.

Although our \$30 billion divestment programme for 2016-18 has been successfully completed, we expect to continue divestments at an average rate of more than \$5 billion a year until at least 2020. This will help us to further strengthen the balance sheet, reduce debt and increase focus on our strategic priorities.

Capital investment in 2018 was slightly below \$25 billion, reflecting our disciplined capital investment approach. Our capital investment outlook remains between \$25 billion and \$30 billion a year until 2020. We see \$30 billion as a ceiling, even in a high oil price environment. Our continued focus on capital efficiency and streamlining our portfolio will make us more resilient and competitive.

We will continue to carefully control our costs and investment levels, but we are still investing in strong commercial opportunities for growth. For example, we added deep-water exploration acreage in both the Mexican and US parts of the Gulf of Mexico, off the coast of Brazil, and off the coast of Mauritania in 2018. We also announced two large deep-water discoveries in the US Gulf of Mexico.

Natural gas will play a key role in the transition to a lower-carbon global energy system over the next few decades, with liquefied natural gas (LNG) shipments playing an increasingly important part. This is one of the driving forces behind our taking the final investment decision in 2018 on LNG Canada, a major project in which Shell has a 40% interest.

LNG Canada is well positioned to help Shell meet some of the world's growing gas needs. We expect the cash flow it generates to be significant and resilient. Sustainable development was considered in every aspect of the project. For example, it has been designed to achieve the lowest carbon intensity of any LNG project in operation today, aided by the partial use of hydropower.

In December, Shell announced plans to set short-term targets for reducing the Net Carbon Footprint of the energy products it sells – a carbon intensity measure that includes our customers' emissions when they use these products – and to link these targets to executive remuneration. This is an industry first.

Shell's Remuneration Committee will include a new performance condition linked to the transition to lower-carbon energy for the Long-term Incentive Plan grant starting in 2019, one year earlier than planned. Further details are in the Directors' Remuneration Report.

In 2018, I also announced our ambition to provide a reliable electricity supply to 100 million people in the developing world by 2030. Economic and social progress are being hindered in many countries by a lack of reliable energy supplies that are essential to providing basic medical services and clean water, for example. Better access to energy improves people's lives.

I am proud of Shell's success in 2018. We will continue to focus on delivering on our strategy in 2019, maintaining our disciplined approach to capital investment while working to grow our cash flow and returns. Our strategy to deliver a world-class investment case is working.

**Ben van Beurden**  
Chief Executive Officer

# Strategy and outlook

## STRATEGY

Shell's purpose is to power progress together by providing more and cleaner energy solutions. Our strategy is to strengthen our position as a leading energy company by providing oil, gas and low-carbon energy as the world's energy system transforms. Safety and social responsibility are fundamental to our business approach. Shell will only succeed by working collaboratively with customers, governments, business partners, investors and other stakeholders.

Our strategy is founded on our outlook for the energy sector and the chance to grasp the opportunities arising from the substantial changes in the world around us. The rising standard of living of a growing global population is likely to continue to drive demand for energy, including oil and gas, for years to come. At the same time, technology changes and the need to tackle climate change means there is a transition under way to a lower-carbon, multi-source energy system with increasing customer choice. We recognise that the pace and path forward are uncertain and require agile decision-making.

## STRATEGIC AMBITIONS

Against this backdrop, we have the following strategic ambitions to guide us in pursuing our purpose:

- to provide a world-class investment case. This involves growing free cash flow and increasing returns, all built upon a strong financial framework and resilient portfolio;
- to thrive in the energy transition by responding to society's desire for more and cleaner, convenient and competitive energy; and
- to sustain a strong societal licence to operate and make a positive contribution to society through our activities.

The execution of our strategy is founded on becoming a more customer-centric and simpler, more streamlined organisation, focused on growing returns and free cash flow. By investing in competitive projects, driving down costs and selling non-core businesses, we are continuously reshaping our portfolio to become a more resilient and focused company.

Our ability to achieve our strategic ambitions depends on how we respond to competitive forces. We continuously assess the external environment – the markets as well as the underlying economic, political, social and environmental drivers that shape them – to evaluate changes in competitive forces and business models. We use multiple future scenarios to assess the resilience of our strategy. We undertake regular reviews of the markets we operate in and analyse trends and uncertainties, as well as our traditional and non-traditional competitors' strengths and weaknesses, to understand our competitive position. We maintain business strategies and plans that focus on actions and capabilities to create and sustain competitive advantage. We maintain a risk management framework that regularly assesses our response to, and risk appetite for, identified risk factors (see "Risk factors" on page 15).

Our Executive Directors' remuneration is linked to the successful delivery of our strategy, based on performance indicators that are aligned with shareholder interests. Long-term incentives form the majority of the Executive Directors' remuneration for above-target performance. In 2018, the Long-term Incentive Plan (LTIP) included cash generation, capital discipline, and value created for shareholders metrics. See the "Directors' Remuneration Report" on page 142.

## STRATEGIC THEMES

As part of our strategy, we divide our portfolio into strategic themes, each with distinctive capabilities, growth strategies, risk management, capital allocation and expected returns:

- Cash engines are strategic themes that are expected to provide strong and resilient returns and free cash flow, funding shareholder returns and strengthening the balance sheet. Shell continues to invest in selective growth opportunities for cash engines. Our cash engines are Conventional Oil and Gas in Upstream, Integrated Gas, and Oil Products in Downstream.
- Growth priorities are the cash engines of the future. Shell seeks to invest in affordable growth in advantaged positions with a pathway to free cash flow and returns in the near future. Our growth priorities currently are Deep water in Upstream and Chemicals in Downstream.
- Emerging opportunities are strategic themes that are expected to become growth priorities after further development. These businesses should provide us with material growth in free cash flow in the next decade or beyond. We seek to manage our exposure to these businesses while establishing scale. Our emerging opportunities currently are Shales in Upstream and New Energies, which is part of the Integrated Gas organisation.

For more details on how the strategic themes are embedded into our businesses, see "Business Overview" on page 13.

Our intention is to have an advantaged and resilient position in each strategic theme to drive an optimal free cash flow and returns profile over multiple timelines. When we set our plans and goals, we do so on the basis of delivering sustained returns over decades.

## OUTLOOK FOR 2019 AND BEYOND

We continuously seek to improve our operating performance and maximise sustainable free cash flow, with an emphasis on health, safety, security, environment and asset performance, as well as our ethics and compliance principles. In order to achieve that, we strive for highly qualified and motivated employees.

We are on track with our outlook of annual free cash flow of between \$30 billion and \$35 billion by 2020, at a Brent crude oil price of \$60 a barrel (real terms 2016).

Our capital investment outlook remains between \$25 billion and \$30 billion a year until 2020. We see \$30 billion as a ceiling, even in a high oil price environment.

Following the successful delivery of our \$30 billion divestment programme during 2016-18, we will continue with an annual average outlook of at least \$5 billion of divestments in 2019 and 2020.

Following the delivery of an additional \$10 billion of cash flow from operations between 2014 and 2018, key project start-ups and ramp-ups are expected to generate an additional \$5 billion cash flow from operations between 2018 and 2020, assuming \$60 per barrel (real terms 2016) and mid-cycle Downstream industry conditions. We will remain highly selective on new investment decisions throughout 2019 and beyond.

We launched our share buyback programme in 2018. Our intention remains to buy back at least \$25 billion of our shares by the end of 2020, subject to further progress with debt reduction and oil price conditions.

We fully support the Paris Agreement's goal to keep the rise in global average temperature this century to well below two degrees Celsius above pre-industrial levels and to pursue efforts to limit temperature increase even further to 1.5 degrees Celsius. We have set a long-term ambition to reduce the Net Carbon Footprint of our energy products, measured in grams of carbon-dioxide equivalent per megajoule consumed, by around 20% by 2035 and by around 50% by 2050, in pace with society. To operationalise this long-term ambition, we will start setting specific Net Carbon Footprint targets for shorter-term periods. The first target has been set for a three-year period and is detailed in the Climate Change section on page 77. The target and other measures will be linked to our executive remuneration and we have introduced an additional performance condition in our Long-term Incentive Plan (LTIP) in 2019 linked to the transition to lower-carbon energy. Further details can be found in the Directors' Remuneration Report on page 124.

The statements in this "Strategy and outlook" section, including those related to our growth strategies and our expected or potential future cash flow from operations, free cash flow, share buybacks, capital investment, divestments, production and Net Carbon Footprint are based on management's current expectations and certain material assumptions and, accordingly, involve risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied herein. See "About this Report" on pages 05-06 and "Risk factors" on pages 15-20.

This outlook does not include the impact of the application of the new standard IFRS 16 Leases, which is effective as of January 1, 2019.

# Business overview

## HISTORY

From 1907 until 2005, Royal Dutch Petroleum Company and The "Shell" Transport and Trading Company, p.l.c. were the two public parent companies of a group of companies known collectively as the "Royal Dutch/Shell Group". Operating activities were conducted through the subsidiaries of these parent companies. In 2005, Royal Dutch Shell plc became the single parent company of Royal Dutch Petroleum Company and of The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited.

Royal Dutch Shell plc (the Company) is a public limited company registered in England and Wales and headquartered in The Hague, the Netherlands.

## BUSINESS MODEL

Shell is an international energy company with expertise in the exploration, development, production, refining and marketing of oil and natural gas, as well as in the manufacturing and marketing of chemicals. We are one of the world's largest independent energy companies in terms of market capitalisation, cash flow from operating activities, and production levels.

We seek to create shareholder value through the following activities:

- We explore for crude oil and natural gas worldwide, both in conventional fields and from sources such as tight rock, shale and coal formations. We work to develop new crude oil and natural gas supplies from major fields. We also extract bitumen from oil sands, which we convert into synthetic crude oil.

- We cool natural gas to produce liquefied natural gas (LNG) that can be safely shipped to markets around the world, and we convert gas into liquids (GTL).
- We transport and trade oil, gas and other energy-related products, such as electricity and carbon-emissions rights.
- We have a portfolio of refineries and chemical plants which enables us to capture value from oil and gas production, turning them into a range of refined and petrochemical products which are moved and marketed around the world for domestic, industrial and transport use. The products we sell include gasoline, diesel, heating oil, aviation fuel, marine fuel, LNG for transport, lubricants, bitumen and sulphur. We also produce and sell ethanol from sugar cane in Brazil, through our Raízen joint venture.
- We invest in low-carbon energy solutions such as biofuels, hydrogen, wind and solar power, and in other opportunities linked to the energy transition.

The integration of our businesses is one of our competitive advantages, allowing for optimisations across our global portfolio. Our key strengths include the development and application of innovation and technology, the financial and project management skills that allow us to safely develop large and integrated projects, the management of integrated value chains and the marketing of energy products. The distinctive Shell pecten, a trademark in use since the early part of the 20th century, and trademarks in which the word Shell appears, help raise the profile of our brand globally.

## Sales and marketing



## Transport and trading



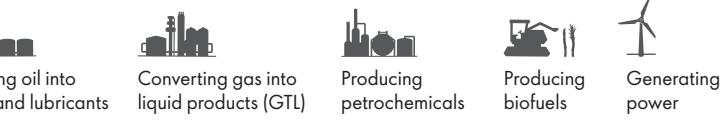
## Exploration



## Development and extraction



## Manufacturing and Energy Production



## ORGANISATION

We describe below how our activities are organised. Integrated Gas, Upstream and Downstream focus on our seven strategic themes (see "Strategy and outlook" on page 10). Our Projects & Technology organisation manages the delivery of Shell's major projects and drives research and innovation to develop new technology solutions.

### INTEGRATED GAS (INCLUDING NEW ENERGIES)

This organisation covers two strategic themes: Integrated Gas, which is a cash engine; and New Energies, which is an emerging opportunity.

Integrated Gas manages LNG activities and the conversion of natural gas into GTL fuels and other products. It includes natural gas exploration and extraction, and the operation of upstream and midstream infrastructure necessary to deliver gas to market. It markets and trades natural gas, LNG, electricity and carbon-emission rights and also markets and sells LNG as a fuel for heavy-duty vehicles and marine vessels.

In New Energies, we are exploring emerging opportunities and investing in those where we believe sufficient commercial value is available. We focus on new fuels for transport, such as advanced biofuels, hydrogen and charging for battery-electric vehicles; and power, including from low-carbon sources such as wind and solar as well as natural gas.

### UPSTREAM

Our Upstream organisation covers three strategic themes: Conventional Oil and Gas, which is a cash engine; Deep water, which is a growth priority; and Shales, which is an emerging opportunity.

It manages the exploration for and extraction of crude oil, natural gas and natural gas liquids. It also markets and transports oil and gas, and operates infrastructure necessary to deliver them to market.

### DOWNTREAM

Our Downstream organisation comprises two strategic themes: Oil Products, which is a cash engine; and Chemicals, which is a growth priority.

It manages different Oil Products and Chemicals activities as part of an integrated value chain, that trades and refines crude oil, and other feedstocks into a range of products which are moved and marketed around the world for domestic, industrial and transport use. The products we sell include gasoline, diesel, heating oil, aviation fuel, marine fuel, biofuel, lubricants, bitumen and sulphur. In addition, we produce and sell petrochemicals for industrial use worldwide. Our Downstream organisation also manages Oil Sands activities (the extraction of bitumen from mined oil sands and its conversion into synthetic crude oil).

### PROJECTS & TECHNOLOGY

Our Projects & Technology organisation manages the delivery of our major projects and drives research and innovation to develop new technology solutions. It provides technical services and technology capability for our Integrated Gas, Upstream and Downstream activities. It is also responsible for providing functional leadership across Shell in the areas of safety and environment, contracting and procurement, wells activities and greenhouse gas management.

Our future hydrocarbon production depends on the delivery of large and integrated projects (see "Risk factors" on page 15). Systematic management of

life-cycle technical and non-technical risks is in place for each opportunity, with assurance and control activities embedded throughout the project life cycle. We focus on the cost-effective delivery of projects through commercial agreements, supply-chain management, and construction and engineering productivity through effective planning and simplification of delivery processes. Development of our employees' project management competencies is underpinned by project principles, standards and processes. A dedicated competence framework, training, standards and processes exist for various technical disciplines. In addition, we provide governance support for our non-Shell-operated ventures or projects.

### SEGMENTAL REPORTING

Our reporting segments are Integrated Gas, Upstream, Downstream and Corporate. Upstream combines the operating segments Upstream (managed by our Upstream organisation) and Oil Sands (managed by our Downstream organisation), which have similar economic characteristics. Integrated Gas, Upstream and Downstream include their respective elements of our Projects & Technology organisation. The Corporate segment comprises our holdings and treasury organisation, self-insurance activities, and headquarters and central functions. See Note 4 to the "Consolidated Financial Statements" on pages 181-184.

### Revenue by business segment (including inter-segment sales)

	2018	2017	\$ million 2016
Integrated Gas			
Third parties	43,764	32,674	25,282
Inter-segment	4,853	3,978	3,908
Total	48,617	36,652	29,190
Upstream			
Third parties	9,892	7,723	6,412
Inter-segment	37,841	32,469	26,524
Total	47,733	40,192	32,936
Downstream			
Third parties	334,680	264,731	201,823
Inter-segment	5,358	4,248	1,727
Total	340,038	268,979	203,550
Corporate			
Third parties	43	51	74
Total	43	51	74

**Revenue by geographical area  
(excluding inter-segment sales)**

	2018	2017	2016	\$ million
Europe	118,960	100,609	81,573	
Asia, Oceania, Africa	153,716	114,683	87,635	
USA	89,876	66,854	44,615	
Other Americas	25,827	23,033	19,768	
Total	388,379	305,179	233,591	

**TECHNOLOGY AND INNOVATION**

Technology and innovation are essential to our efforts to meet the world's energy needs in a competitive way. If we do not develop the right technology, do not have access to it or do not deploy it effectively, this could have a material adverse effect on the delivery of our strategy and our licence to operate (see "Risk factors" on pages 17-18). We continuously look for technologies and innovations of potential relevance to our business. Our Chief Technology Officer oversees the development and deployment of new and differentiating technologies and innovations across Shell, seeking to align business and technology requirements throughout our technology maturation process.

In 2018, research and development expenses were \$986 million, compared with \$922 million in 2017, and \$1,014 million in 2016. Our main technology centres are in India, the Netherlands and the USA, with other centres in Brazil, China, Germany, Oman and Qatar. A strong patent portfolio underlies the technology that we employ in our various businesses. In total, we have around 10,325 granted patents and pending patent applications.

# Risk factors

**The risks discussed below could have a material adverse effect separately, or in combination, on our earnings, cash flows and financial condition. Accordingly, investors should carefully consider these risks.**

Measures that we use to manage or mitigate our various risks are set out in the relevant sections of this Report, indicated by way of cross references under each risk factor. The Board's responsibility for identifying, evaluating and managing our significant risks is discussed in "Corporate governance" on pages 103-104.

## We are exposed to fluctuating prices of crude oil, natural gas, oil products and chemicals.

The prices of crude oil, natural gas, oil products and chemicals are affected by supply and demand, both globally and regionally. Government actions may also affect the prices of crude oil, natural gas, oil products and chemicals. For example, if a government were to ban diesel automobiles from entering a city or provide tax deductions for the purchase of renewable automobiles. Moreover, prices for oil and gas can move independently of each other. Factors that influence supply and demand include operational issues, natural disasters, weather, political instability, conflicts, economic conditions and actions by major oil and gas producing countries. Additionally, in a low oil and gas price environment, we would generate less revenue from our Upstream and Integrated Gas businesses, and, as a result, parts of those businesses could become less profitable, or could incur losses. Additionally, low oil and gas prices have resulted, and could continue to result, in the debooking of proved oil or gas reserves, if they become uneconomic in this type of price environment. Prolonged periods of low oil and gas prices, or rising costs, have resulted and could continue to result in projects being delayed or cancelled. In addition, assets have been impaired in the past, and there could be impairments in the future. Low oil and gas prices could also affect our ability to maintain our long-term capital investment programme and dividend payments. Prolonged periods of low oil and gas prices could adversely affect the financial, fiscal, legal, political and social stability of countries that rely significantly on oil and gas revenue. In a high oil and gas price environment, we could experience sharp increases in costs, and, under some production-sharing contracts, our entitlement to proved reserves would be reduced. Higher prices could also reduce demand for our products, which could result in lower profitability, particularly in our Downstream business. Accordingly, price fluctuations could have a material adverse effect on our earnings, cash flows and financial condition.

See "Market overview" on page 21.

## Our ability to deliver competitive returns and pursue commercial opportunities depends in part on the accuracy of our price assumptions.

We use a range of oil and gas price assumptions, which we review on a periodic basis, to evaluate projects and commercial opportunities. If our assumptions prove to be incorrect, it could have a material adverse effect on our earnings, cash flows and financial condition.

See "Market overview" on page 22.

## Our ability to achieve strategic objectives depends on how we react to competitive forces.

We face competition in each of our businesses. We seek to differentiate our products; however, many of them are competing in commodity-type

markets. Accordingly, failure to manage our costs as well as our operational performance could result in a material adverse effect on our earnings, cash flows and financial condition. We also compete with state-owned oil and gas entities with vast access to financial resources. State-owned entities could be motivated by political or other factors in making their business decisions. Accordingly, when bidding on new leases or projects, we could find ourselves at a competitive disadvantage as these state-owned entities may not require a competitive return. If we are unable to obtain competitive returns when bidding on new leases or projects, it could have a material adverse effect on our earnings, cash flows and financial condition.

See "Strategy and outlook" on page 10.

**We seek to execute divestments in the pursuit of our strategy. We may not be able to successfully divest these assets in line with our strategy.** We may not be able to successfully divest assets at acceptable prices or within the timeline envisaged due to market conditions or credit risk, resulting in increased pressure on our cash position and potential impairments. Additionally, in some cases, we have retained certain liabilities following a divestment. Moreover, even in cases where we have not expressly retained certain liabilities, we may be held liable for past acts, failures to act or liabilities that are different from those foreseen. We may also face liabilities if a purchaser fails to honour its commitments. Accordingly, if we are unable to divest assets at acceptable prices or within our envisaged timeframe, this could have a material adverse effect on our earnings, cash flows and financial condition.

See "Strategy and outlook" on pages 10-11.

## Our future hydrocarbon production depends on the delivery of large and integrated projects, as well as on our ability to replace proved oil and gas reserves.

We face numerous challenges in developing capital projects, especially those which are large and integrated. Challenges include uncertain geology, frontier conditions, the existence and availability of necessary technology and engineering resources, the availability of skilled labour, the existence of transportation infrastructure, project delays, the expiration of licences and potential cost overruns, as well as technical, fiscal, regulatory, political and other conditions. These challenges are particularly relevant in certain developing and emerging-market countries, in frontier areas and in deep-water fields, such as off the coast of Brazil. We may fail to assess or manage these and other risks properly. Such potential obstacles could impair our delivery of these projects, our ability to fulfil the value potential at the time of the project investment approval, and/or our ability to fulfil related contractual commitments. These could lead to impairments and could have a material adverse effect on our earnings, cash flows and financial condition.

Future oil and gas production will depend on our access to new proved reserves through exploration, negotiations with governments and other owners of proved reserves and acquisitions, as well as on developing and applying new technologies and recovery processes to existing fields. Failure to replace proved reserves could result in lower future production, potentially having a material adverse effect on our earnings, cash flows and financial condition.

See "Business overview" on page 13.

## Risk factors Continued

<b>Oil and gas production available for sale</b>	Million boe [A]		
	2018	2017	2016
Shell subsidiaries	1,179	1,168	1,158
Shell share of joint ventures and associates	159	170	184
Total	1,338	1,338	1,342

[A] Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

<b>Proved developed and undeveloped oil and gas reserves</b> [A][B] (at December 31)	Million boe [C]		
	2018	2017	2016
Shell subsidiaries	10,294	10,177	11,040
Shell share of joint ventures and associates	1,285	2,056	2,208
Total	11,578	12,233	13,248
Attributable to non-controlling interest in Shell subsidiaries	331	325	5

[A] We manage our total proved reserves base without distinguishing between proved reserves from subsidiaries and those from joint ventures and associates.

[B] Includes proved reserves associated with future production that will be consumed in operations.

[C] Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

### The estimation of proved oil and gas reserves involves subjective judgements based on available information and the application of complex rules; therefore, subsequent downward adjustments are possible.

The estimation of proved oil and gas reserves involves subjective judgements and determinations based on available geological, technical, contractual and economic information. Estimates could change because of new information from production or drilling activities, or changes in economic factors, including changes in the price of oil or gas and changes in the regulatory policies of host governments, or other events. Estimates could also be altered by acquisitions and divestments, new discoveries, and extensions of existing fields and mines, as well as the application of improved recovery techniques. Published proved oil and gas reserves estimates could also be subject to correction due to errors in the application of published rules and changes in guidance. Downward adjustments could indicate lower future production volumes and could also lead to impairment of assets. This could have a material adverse effect on our earnings, cash flows and financial condition.

See "Supplementary information – oil and gas (unaudited)" on page 215.

### Rising climate change concerns have led and could lead to additional legal and/or regulatory measures which could result in project delays or cancellations, a decrease in demand for fossil fuels, potential litigation and additional compliance obligations.

In December 2015, 195 nations adopted the Paris Agreement, which we fully support. The Paris Agreement aims to limit increases in global temperatures to well below two degrees Celsius. As a result, we expect continued and increased attention to climate change from all sectors of society. This attention has led, and we expect it to continue to lead, to additional regulations designed to reduce greenhouse gas (GHG) emissions.

We expect that a growing share of our GHG emissions will be subject to regulation, resulting in increased compliance costs and operational restrictions. If our GHG emissions rise alongside our ambitions to increase the scale of our business, our regulatory burden will increase proportionally. We also expect that GHG regulation, as well as emission reduction actions by customers, will continue to focus more on suppressing demand for fossil

fuels, either through taxes, fees, incentives to promote the sale of electric vehicles or even through the future prohibition of sales of new diesel or gasoline vehicles. This could result in lower revenue and, in the long term, potential impairment of certain assets.

Additionally, some groups are pressuring certain investors to divest their investments in fossil fuel companies. If this were to continue, it could have a material adverse effect on the price of our securities and our ability to access equity capital markets. The World Bank has also announced plans to stop financing upstream oil and gas projects in 2019. Similarly, according to press reports, other financial institutions also appear to be considering limiting their exposure to certain fossil fuel projects. Accordingly, our ability to use financing for future projects may be adversely impacted. This could also adversely impact our potential partners' ability to finance their portion of costs, either through equity or debt.

Further, in some countries, governments, regulators, organisations and individuals have filed lawsuits seeking to hold fossil fuel companies liable for costs associated with climate change. While we believe these lawsuits to be without merit, losing any of these lawsuits could have a material adverse effect on our earnings, cash flows and financial condition.

In addition, physical effects of climate change such as, but not limited to, rise in temperature, sea-level rise and fluctuations in water levels could adversely impact both our operations and supply chains.

If we are unable to find economically viable, as well as publicly acceptable, solutions that reduce our GHG emissions and/or GHG intensity for new and existing projects or for the products we sell, we could experience additional costs or financial penalties, delayed or cancelled projects, and/or reduced production and reduced demand for hydrocarbons, which could have a material adverse effect on our earnings, cash flows and financial condition.

Also, if we are unable to keep pace with society's energy transition or we are unable to provide the desired low GHG emissions products needed to facilitate society's energy transition, it could have a material adverse effect on our earnings, cash flows and financial condition.

See "Climate change and energy transition" on page 73.

### Our operations expose us to social instability, criminality, civil unrest, terrorism, piracy, cyber-disruption, acts of war and risks of pandemic diseases that could have a material adverse effect on our business.

As seen in recent years in Nigeria, North Africa, the Middle East, South America and South-East Asia, social and civil unrest, both in the countries in which we operate and elsewhere, can and do affect us. Such potential developments that could have a material adverse effect on our earnings, cash flows and financial condition include: acts of political or economic terrorism; acts of maritime piracy; cyber-espionage or disruptive cyber-attacks; conflicts including war and civil unrest (including disruptions by non-governmental and political organisations); and local security concerns that threaten the safe operation of our facilities, transport of our products and the well-being of our people. Pandemic diseases can also affect our operations directly and indirectly. If such risks materialise, they could result in injuries, loss of life, environmental harm and disruption to business activities, which in turn could have a material adverse effect on our earnings, cash flows and financial condition.

See "Environment and society" on page 70.

**We operate in more than 70 countries that have differing degrees of political, legal and fiscal stability. This exposes us to a wide range of political developments that could result in changes to contractual terms, laws and regulations. In addition, we and our joint arrangements and associates face the risk of litigation and disputes worldwide.**

Developments in politics, laws and regulations can and do affect our operations. Potential impacts include: forced divestment of assets; expropriation of property; cancellation or forced renegotiation of contract rights; additional taxes including windfall taxes, restrictions on deductions and retroactive tax claims; antitrust claims; changes to trade compliance regulations; price controls; local content requirements; foreign exchange controls; changes to environmental regulations; changes to regulatory interpretations and enforcement; and changes to disclosure requirements. Any of these, individually or in aggregate, could have a material adverse effect on our earnings, cash flows and financial condition.

In addition to the above risks, the United Kingdom is expected to leave the European Union (EU) in March 2019. As a result of this decision, it is possible that we may experience delays in moving our products and employees between the UK and EU. Also, additional tariffs and taxes could impact the demand for some of our products. This potential delay and reduced demand for our products, combined with the potential adverse changes in macroeconomic conditions in both the EU and UK, could have a material adverse effect on our earnings and cash flows.

From time to time, social and political factors play a role in unprecedented and unanticipated judicial outcomes that could adversely affect Shell. Non-compliance with policies and regulations could result in regulatory investigations, litigation and, ultimately, sanctions. Certain governments and regulatory bodies have, in Shell's opinion, exceeded their constitutional authority by: attempting unilaterally to amend or cancel existing agreements or arrangements; failing to honour existing contractual commitments; and seeking to adjudicate disputes between private litigants. Additionally, certain governments have adopted laws and regulations that could potentially conflict with other countries' laws and regulations, potentially subjecting us to both criminal and civil sanctions. Such developments and outcomes could have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on page 104.

**The nature of our operations exposes us, and the communities in which we work, to a wide range of health, safety, security and environment risks.**

The health, safety, security and environment (HSSE) risks to which we, and the communities in which we work, are potentially exposed cover a wide spectrum, given the geographic range, operational diversity and technical complexity of our operations. These risks include the effects of natural disasters (including weather events), earthquakes, social unrest, personal health and safety lapses, and crime. If a major risk materialises, such as an explosion or hydrocarbon spill, this could result in injuries, loss of life, environmental harm, disruption of business activities, and loss or suspension of our licence to operate or ability to bid on mineral rights. Accordingly, this would have a material adverse effect on our earnings, cash flows and financial condition.

Our operations are subject to extensive HSSE regulatory requirements that often change and are likely to become more stringent over time. Governments could require operators to adjust their future production plans, as has been done in the Netherlands, affecting production and costs. We could incur significant additional costs in the future due to compliance with these requirements or as a result of violations of, or liabilities under, laws and regulations, such as fines, penalties, clean-up costs and third-party claims. Therefore, HSSE risks, should they materialise, could have a material adverse effect on our earnings, cash flows and financial condition.

See "Environment and society" on page 66.

**A further erosion of the business and operating environment in Nigeria could have a material adverse effect on us.**

In our Nigerian operations, we face various risks and adverse conditions. These include: security issues surrounding the safety of our people, host communities and operations; sabotage and theft; our ability to enforce existing contractual rights; litigation; limited infrastructure; potential legislation that could increase our taxes or costs of operations; the effect of lower oil and gas prices on the government budget; and regional instability created by militant activities. Any of these risks or adverse conditions could have a material adverse effect on our earnings, cash flows and financial condition.

See "Upstream" on page 41.

**Production from the Groningen field in the Netherlands causes earthquakes that affect local communities.**

Shell and ExxonMobil are 50:50 shareholders in Nederlandse Aardolie Maatschappij B.V. (NAM). An important part of NAM's gas production comes from the onshore Groningen gas field, in which EBN, a Dutch government entity, has a 40% interest and NAM a 60% interest. Since 1995, production from the Groningen field has caused earthquakes. Some of these earthquakes have caused damage to houses and other structures in the region, resulting in complaints and lawsuits from the local community. Following the Dutch cabinet's decision to reduce NAM's production from the Groningen field to zero by 2030, NAM's shareholders and the Dutch State signed a heads of agreement in June 2018. This agreement supports the ramp-down of production from the Groningen field, includes measures to ensure the financial robustness of NAM, and determines the split of legal responsibilities between the Dutch government and the Groningen field partners. Shell's proved reserves were reduced by 0.63 billion boe as a result in 2018. Additional earthquakes, lawsuits and any acceleration of the current plan to cease production from the Groningen field by 2030 could have further adverse effects on NAM and therefore could impact our earnings, cash flows and financial condition.

See "Upstream" on page 39.

**Our future performance depends on the successful development and deployment of new technologies and new products.**

Technology and innovation are essential to our efforts to meet the world's energy demands in a competitive way. If we do not develop the right technology and products, do not have access to such technology and products or do not deploy these effectively, there could be a material adverse effect on the delivery of our strategy and our licence to operate. We operate in environments where advanced technologies are utilised. In developing new technologies and new products, unknown or unforeseeable technological failures or environmental and health effects

## Risk factors Continued

could harm our reputation and licence to operate or expose us to litigation or sanctions. The associated costs of new technology are sometimes underestimated, or delays occur. If we are unable to develop the right technologies and products in a timely and cost-effective manner, or if we develop technologies and products that adversely impact the environment or health of individuals, there could be a material adverse effect on our earnings, cash flows and financial condition.

See "Business overview" on page 14.

**We are exposed to treasury and trading risks, including liquidity risk, interest rate risk, foreign exchange risk, commodity price risk and credit risk. We are affected by the global macroeconomic environment as well as financial and commodity market conditions.**

Our subsidiaries, joint arrangements and associates are subject to differing economic and financial market conditions around the world. Political or economic instability affects such markets.

We use debt instruments, such as bonds and commercial paper, to raise significant amounts of capital. Should our access to debt markets become more difficult, the potential impact on our liquidity could have a material adverse effect on our operations. Our financing costs could also be affected by interest rate fluctuations or any credit rating deterioration.

We are exposed to changes in currency values and to exchange controls as a result of our substantial international operations. Our reporting currency is the dollar. However, to a material extent, we hold assets and are exposed to liabilities in other currencies. Commodity trading is an important component of our Upstream, Integrated Gas and Downstream businesses and is integrated with our supply business. While we undertake some foreign exchange and commodity hedging, we do not do so for all our activities. Furthermore, even where hedging is in place, it may not function as expected.

We are exposed to credit risk; our counterparties could fail or could be unable to meet their payment and/or performance obligations under contractual arrangements. Although we do not have significant direct exposure to sovereign debt, it is possible that our partners and customers may have exposure which could impair their ability to meet their obligations. In addition, our pension plans may invest in government bonds, and therefore could be affected by a sovereign debt downgrade or other default.

If any of the risks set out above materialise, they could have a material adverse effect on our earnings, cash flows and financial condition.

See "Liquidity and capital resources" on page 62 and Note 19 to the "Consolidated Financial Statements" on pages 202-207.

**We have substantial pension commitments, funding of which is subject to capital market risks.**

Liabilities associated with defined benefit pension plans can be significant, as can the cash funding requirement of such plans; both depend on various assumptions. Volatility in capital markets or government policies, and the resulting consequences for investment performance and interest rates, as well as changes in assumptions for mortality, retirement age or pensionable remuneration at retirement, could result in significant changes to the funding level of future liabilities. We operate a number of defined benefit pension plans and, in case of a shortfall, we could be required to make substantial cash contributions (depending on the applicable local regulations) resulting in a material adverse effect on our earnings, cash flows and financial condition.

See "Liquidity and capital resources" on page 62.

**We mainly self-insure our risk exposure. We could incur significant losses from different types of risks that are not covered by insurance from third-party insurers.**

Our insurance subsidiaries provide hazard insurance coverage to other Shell entities and only reinsurance a portion of their risk exposures. Such reinsurance would not provide any material coverage in the event of a large-scale safety and environmental incident. Similarly, in the event of a material safety and environmental incident, there would be no material proceeds available from third-party insurance companies to meet our obligations. Therefore, we may incur significant losses from different types of risks that are not covered by insurance from third-party insurers, potentially resulting in a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate" on page 61.

**An erosion of our business reputation could have a material adverse effect on our brand, our ability to secure new resources or access capital markets, and on our licence to operate.**

Our reputation is an important asset. The Shell General Business Principles (Principles) govern how Shell and its individual companies conduct their affairs, and the Shell Code of Conduct instructs employees and contract staff on how to behave in line with the Principles. Our challenge is to ensure that all employees and contract staff, more than 100,000 in total, comply with the Principles and the Code of Conduct. Real or perceived failures of governance or regulatory compliance could harm our reputation. This could impact our licence to operate, damage our brand, reduce consumer demand for our branded products, harm our ability to secure new resources and contracts, and limit our ability to access capital markets and attract staff. Many other factors, including the materialisation of the risks discussed in several of the other risk factors, could negatively impact our reputation and could have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on pages 96-97.

**Many of our major projects and operations are conducted in joint arrangements or associates. This could reduce our degree of control, as well as our ability to identify and manage risks.**

In cases where we are not the operator, we have limited influence over, and control of, the behaviour, performance and costs of operation of such joint arrangements or associates. Despite not having control, we could still be exposed to the risks associated with these operations, including reputational, litigation (where joint and several liability could apply) and government sanction risks. For example, our partners or members of a joint arrangement or an associate (particularly local partners in developing countries) may not be able to meet their financial or other obligations to the projects, threatening the viability of a given project. Where we are the operator of a joint arrangement, the other partner(s) could still be able to veto or block certain decisions, which could be to our overall detriment. Accordingly, where we have limited influence, we are exposed to operational risks that could have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on page 104.

**We rely heavily on information technology systems for our operations.** The operation of many of our business processes depends on reliable information technology (IT) systems. Our IT systems are increasingly dependent on key contractors supporting the delivery of IT services, and continue to expand in terms of the number of systems. Shell, like many other multinational companies, is the target of attempts to gain unauthorised access to our IT systems and our data through various channels, including more sophisticated and coordinated attempts often referred to as advanced persistent threats. While our IT systems have been breached in the past, we believe that to date, no significant breach has occurred. Timely detection is becoming increasingly complex but we seek to detect and investigate all such security incidents, aiming to prevent their recurrence. Disruption of critical IT services, or breaches of information security, could harm our reputation and have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate" on page 61.

**Violations of antitrust and competition laws carry fines and expose us and/or our employees to criminal sanctions and civil suits.**

Antitrust and competition laws apply to Shell and its joint ventures and associates in the vast majority of countries in which we do business. Shell and its joint ventures and associates have been fined for violations of antitrust and competition laws in the past. These include a number of fines by the European Commission Directorate-General for Competition (DG COMP). Due to DG COMP's fining guidelines, any future conviction of Shell or any of its joint ventures or associates for violation of EU competition law could result in significantly larger fines and have a material adverse effect on us. Violation of antitrust laws is a criminal offence in many countries, and individuals can be imprisoned or fined. In certain circumstances, directors may receive director disqualification orders. Furthermore, it is now common for persons or corporations allegedly injured by antitrust violations to sue for damages. Any violation of these laws can harm our reputation and could have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on pages 96-97.

**Violations of anti-bribery, tax-evasion and anti-money laundering laws carry fines and expose us and/or our employees to criminal sanctions, civil suits and ancillary consequences (such as debarment and the revocation of licences).**

Anti-bribery, tax-evasion and anti-money laundering laws apply to Shell, its joint ventures and associates in all countries in which we do business. Shell and its joint ventures and associates in the past have been fined for violations of the US Foreign Corrupt Practices Act. Any violation of anti-bribery, tax-evasion or anti-money laundering laws, including those potential violations associated with Shell Nigeria Exploration and Production Company Ltd.'s (SNEPCO's) investment in Nigerian oil block OPL 245 and the 2011 settlement of litigation pertaining to that block, could have a material adverse effect on our earnings, cash flows and financial condition.

See "Our people" on pages 79-81, "Corporate governance" on pages 96-97 and Note 25 to the "Consolidated Financial Statements" on pages 211-213.

**Violations of data protection laws carry fines and expose us and/or our employees to criminal sanctions and civil suits.**

Data protection laws apply to Shell and its joint ventures and associates in the vast majority of countries in which we do business. Most of the countries we operate in have data protection laws and regulations. Additionally, the EU General Data Protection Regulation (GDPR) came into effect in May 2018, which increased penalties up to a maximum of 4% of global annual turnover for breach of the regulation. The GDPR requires mandatory breach notification, the standard for which is also followed outside the EU (particularly in Asia). Non-compliance with data protection laws could expose us to regulatory investigations, which could result in fines and penalties as well as harm our reputation. In addition to imposing fines, regulators may also issue orders to stop processing personal data, which could disrupt operations. We could also be subject to litigation from persons or corporations allegedly affected by data protection violations. Violation of data protection laws is a criminal offence in some countries, and individuals can be imprisoned or fined. Any violation of these laws or harm to our reputation could have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on pages 96-97.

**Violations of trade compliance laws and regulations, including sanctions, carry fines and expose us and our employees to criminal sanctions and civil suits.**

We use "trade compliance" as an umbrella term for various national and international laws designed to regulate the movement of items across national boundaries and restrict or prohibit trade and other dealings with certain parties. The number and breadth of such laws continue to expand. For example, the EU and the USA continue to impose restrictions and prohibitions on certain transactions involving Syria. In addition, the USA continues to have comprehensive sanctions in place against Iran, while the EU and other nations continue to maintain targeted sanctions. Additional restrictions and controls directed at defined oil and gas activities in Russia, which were imposed by the EU and the USA in 2014, are still in force. Further restrictions regarding Russia were introduced by the USA in 2017 and expanded in 2018. Both the EU and the USA introduced sectorial sanctions against Venezuela in 2017, which the USA expanded in 2018 and 2019. The US sanctions primarily target the government of Venezuela and the oil industry. In addition to the significant trade-control programmes

## Risk factors Continued

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administered by the EU and the USA, many other nations are also adopting such programmes. This expansion of sanctions, including the frequent additions of prohibited parties, combined with the number of markets in which we operate and the large number of transactions we process, makes ensuring compliance with all sanctions complex and at times challenging. Any violation of one or more of these regimes could lead to loss of import or export privileges, significant penalties on or prosecution of Shell or its employees, and could harm our reputation and have a material adverse effect on our earnings, cash flows and financial condition.

See "Corporate governance" on pages 96-97.

Investors should also consider the following, which could limit shareholder remedies.

**The Company's Articles of Association determine the jurisdiction for shareholder disputes. This could limit shareholder remedies.**

Our Articles of Association generally require that all disputes between our shareholders in such capacity and the Company or our subsidiaries (or our Directors or former Directors), or between the Company and our Directors or former Directors, be exclusively resolved by arbitration in The Hague, the Netherlands, under the Rules of Arbitration of the International Chamber of Commerce. Our Articles of Association also provide that, if this provision is to be determined invalid or unenforceable for any reason, the dispute could only be brought before the courts of England and Wales. Accordingly, the ability of shareholders to obtain monetary or other relief, including in respect of securities law claims, could be determined in accordance with these provisions.

# Market overview

We maintain a large business portfolio across an integrated value chain and are exposed to crude oil, natural gas, oil product and chemical prices (see "Risk factors" on page 15). This diversified portfolio helps us mitigate the impact of price volatility. Our annual planning cycle and periodic portfolio reviews aim to ensure that our levels of capital investment and operating expenses are appropriate in the context of a volatile price environment. We test the resilience of our projects and other opportunities against a range of crude oil, natural gas, oil product and chemical prices and costs. We also aim to maintain a strong balance sheet to provide resilience against weak market prices.

## GLOBAL ECONOMIC GROWTH

One of the key drivers of oil, natural gas and oil product demand growth is economic growth. According to the *World Economic Outlook* released by the International Monetary Fund (IMF) in January 2019, global economic growth for 2018 is estimated at 3.7%, 0.1% lower than in 2017. Economic growth moderated in some large advanced economies in the second half of the year, after strong growth in 2017, while the group of emerging-market economies continued to expand at broadly the same pace as in 2017.

According to the IMF's latest estimate, economic growth accelerated in the USA to 2.9% in 2018 from 2.2% in 2017, with private sector activity partly supported by sizable tax cuts and higher defense expenditures. But growth slowed in the eurozone and in the United Kingdom due to weaker export growth, higher energy prices and increased political uncertainty, such as the prospect of the UK leaving the European Union (Brexit). Growth in emerging-market economies showed a divergent picture. In China, growth slowed from 6.9% in 2017 to an estimated 6.6% in 2018, due to weaker credit growth and additional US tariffs on imports from China. Argentina and Turkey slid into recession as financial conditions deteriorated and investors became increasingly concerned about financial risks and political uncertainty. In contrast, economic recovery continued in Brazil and India. Higher oil and gas prices lifted growth among fuel-exporting economies, such as some in sub-Saharan Africa (e.g. Nigeria), the Middle East and Russia.

For 2019, the IMF expects the weaker economic conditions seen towards the end of 2018 to continue as many countries face headwinds from rising trade barriers, geopolitical tensions, and tightening financing conditions.

## GLOBAL PRICES, DEMAND AND SUPPLY

The following table provides an overview of the main crude oil and natural gas price markers that we are exposed to:

### Oil and gas average industry prices [A]

	2018	2017	2016
Brent (\$/b)	71	54	44
West Texas Intermediate (\$/b)	65	51	43
Henry Hub (\$/MMBtu)	3.1	3.0	2.5
UK National Balancing Point (pence/therm)	60	45	35
Japan Customs-cleared Crude (\$/b)	74	54	42

[A] Yearly average prices are based on daily spot prices. The 2018 average price for Japan Customs-cleared Crude excludes December data.

## CRUDE OIL

Brent crude oil, an international benchmark, traded between \$51 per barrel (/b) and \$86/b in 2018, ending the year at the lower price of \$51/b. It averaged \$71/b for the year, \$17/b higher than in 2017, and \$27/b higher than in 2016 when the average price was at its lowest average level since 2004.

On a yearly average basis, West Texas Intermediate crude oil traded at a \$6/b discount to Brent in 2018, compared with \$3/b in 2017. The discount widened from 2017, reflecting constrained pipeline capacity from the landlocked Cushing storage hub to the US Gulf Coast. US oil exports increased from 2017, which helped to limit further widening of the price differential.

Reflecting the economic conditions described above, global oil demand grew by 1.2 million barrels per day (b/d), or 1.2%, to 99.2 million b/d, according to the International Energy Agency's (IEA) *Oil Market Report* published in January 2019 (Oil Market Report). This growth was driven by emerging economies, where demand grew by 0.9 million b/d. In advanced economies, demand grew by 0.3 million b/d. Oil demand growth in 2018 was 0.4 million b/d lower than in 2017, when it rose by 1.6 million b/d.

Oil supply in 2018 is estimated in the Oil Market Report at 99.9 million b/d, an increase of 2.5 million b/d compared with 2017. Because growth in oil supply outpaced growth in demand, the trend of falling global crude oil and oil products inventory levels, which started in mid-2016, began to reverse in the middle of 2018. Average commercial inventory levels for OECD countries in November 2018 were estimated at 2,850 million barrels in the Oil Market Report, around 50 million barrels less than in November 2017 and about 150 million barrels above the year average levels seen in 2014 when the Brent price was around \$100/b before starting to fall in late 2014.

Due to falling inventory levels, oil prices strengthened to a peak of \$86/b in October 2018. Oil prices fell in November to below \$60/b, driven by market expectations of higher supply growth and lower demand growth. The outlook for supply growth became more bullish due to the US government waiving some export sanctions on Iran and record production levels in the USA and Saudi Arabia. At the same time, the outlook for demand growth weakened as macroeconomic indicators deteriorated.

On the non-OPEC supply side, the US Energy Information Administration reported another year of supply growth. US production is estimated to have averaged 10.8 million b/d in 2018, 1.4 million b/d higher than in 2017, and 2.0 million b/d higher than in 2016. Like 2017, higher oil prices in 2018 reflected an attractive environment for US production to grow and for drilling activity to increase, as indicated by a higher onshore oil rig count for the year. Production from other non-OPEC countries increased by 1.2 million b/d in 2018 and averaged 56.6 million b/d.

To support oil prices, OPEC members agreed in November 2017 to extend an agreement to reduce overall production by 1.2 million b/d, relative to production levels in October 2016. In December 2018, in response to a 40% fall in oil prices from the peak levels seen in October, OPEC and other non-OPEC resource holders, most notably Russia, agreed to reduce production by 1.2 million b/d from October levels. OPEC production averaged 32.5 million b/d in 2018, a similar level to 2017 and about 0.5 million b/d less than in 2016.

Looking ahead, the IMF's global economic outlook indicates a slightly lower outlook for global economic growth. Additionally, according to the IEA, moderate oil price levels at the beginning of 2019 could create around 1.4 million b/d of additional demand growth in 2019. If OPEC members and co-operating non-OPEC resource holders, such as Russia, successfully implement the December 2018 agreement, then demand growth and production declines from existing operations would have to be balanced by production growth from non-OPEC countries, mostly from the USA. As a consequence, markets could tighten, and prices could rise if supply growth from the USA moderates. Postponements and cancellations of new supply projects over the last few years could lead to further market tightening in the next few years, given the long lead time of many of these projects. In such a scenario, we believe that the average Brent crude oil price could be 10% to 40% higher in 2022 than the 2018 average.

On the other hand, we believe that the price environment could weaken if OPEC and the non-OPEC resource holders abandon their production cuts, global economic growth slows, or if other non-OPEC producers, such as US shale producers, effectively deliver more and cheaper oil to the market. In such a scenario, we believe that the average Brent crude oil price could be 10% to 30% lower in 2022 than the 2018 average.

### NATURAL GAS

We estimate global gas demand to have grown by about 3.2% in 2018, which is higher than the average annual growth rate of 2.4% since the beginning of the century. A combination of weather conditions, implementation of new policies such as the partial substitution of coal by gas-fired power generation in China, and global economic growth led to an increase in demand in most regions.

Global liquefied natural gas (LNG) imports grew by 28 million tonnes (9.6%) in 2018. LNG demand growth was supported by weather conditions, lower nuclear power generation and the start-up of new regasification capacity in Asia. China and India alone increased their regasification capacity by 19% and 33% from 2017 respectively, equal to 21 million tonnes per annum, in total. Supply growth was primarily driven by the start-up of new projects in Australia, the USA and Russia. The majority of additional LNG supply was absorbed by Asia, offsetting declines in the Middle East and North Africa.

Natural gas prices can vary from region to region.

In the USA, the natural gas price at the Henry Hub averaged \$3.1 per million British thermal units (MMBtu) in 2018, 3% higher than in 2017, and traded in a range of \$2.5-4.9/MMBtu. There was some downward pressure on prices due to strong gas supply growth, which averaged 11% higher than in 2017, helped by higher oil prices and new gas pipeline capacity. However, gas prices were also supported by a range of other factors, such as below-normal storage inventory levels, and demand growth due to colder than normal weather in the second half of 2018, the completion of LNG liquefaction projects, increased exports to Mexico by pipeline and US industrial demand.

In Europe, natural gas prices were higher than in 2017. The average price at the UK National Balancing Point (NBP) was 33% higher in 2018. At the main continental gas trading hubs – in the Netherlands, Belgium and Germany – prices were also stronger, as reflected by stronger Dutch Title Transfer Facility (TTF) prices. European gas prices were supported by record prices for carbon dioxide (CO<sub>2</sub>) allowances (EUAs) which averaged €16/tCO<sub>2</sub> in 2018

compared to €6/tCO<sub>2</sub> in 2017, resulting in higher preference for gas over coal in power generation. Gas prices were also supported by lower nuclear power output, particularly in Belgium and Spain, lower than normal temperatures early in the year, and competition from North-East Asian markets for LNG supplies for storage replenishment ahead of winter.

We also produce and sell natural gas in regions where supply, demand and regulatory circumstances differ markedly from those in the USA or Europe. Long-term contracted LNG prices in the Asia-Pacific region generally increased in 2018 as they are predominantly indexed to the price of Japan Customs-cleared Crude, which has increased in line with global oil prices. North Asia spot prices (reflected by the Japan Korea Marker) also increased due to relatively strong demand, particularly from China.

Looking ahead, we expect gas markets in North America, Europe and Asia Pacific to be well supplied over the next few years, despite our expectation of LNG demand growth in Asia. Price developments are very uncertain and dependent on many factors.

In the USA, Henry Hub gas prices may increase over the next few years due to increasing demand from LNG exports, exports to Mexico by pipeline, and US residential/industrial users. On the other hand, increasing availability of low-cost natural gas and oil, combined with technological improvements, could continue to place pressure on natural gas prices. Due to such uncertainty, we believe that average Henry Hub gas prices could be between 10% lower to 30% higher by 2022 than the 2018 average. In Europe, we believe gas prices will be increasingly influenced by the cost of LNG imports from the USA. We believe that the price at the UK NBP may average between 30% lower and 30% higher by 2022 than the 2018 average. In the Asia Pacific region, gas prices are expected to continue to be strongly influenced by oil prices, but also increasingly by Henry Hub gas prices. By 2022, we believe that the price of LNG delivered under contract to the Asia-Pacific market may average between 30% lower and 30% higher than the 2018 average.

### CRUDE OIL AND NATURAL GAS PRICE ASSUMPTIONS

Our ability to deliver competitive returns and pursue commercial opportunities ultimately depends on the accuracy of our price assumptions (see "Risk factors" on page 15). The range of possible future crude oil and natural gas prices used in project and portfolio evaluations is determined after a rigorous assessment of short, medium and long-term market drivers. Historical analyses, trends and statistical volatility are considered in this assessment, as are analyses of market fundamentals such as possible future economic conditions, geopolitics, actions by OPEC and other major resource holders, production costs and the balance of supply and demand. Sensitivity analyses are used to test the impact of low-price drivers, such as economic weakness, and high-price drivers, such as strong economic growth and low investment in new production capacity. Short-term events, such as relatively warm winters or cool summers, affect demand. Supply disruptions, due to weather or political instability, contribute to price volatility. See also Note 8 to the "Consolidated Financial Statements" on page 188.

## REFINING MARGINS

Refining marker average industry gross margins	\$/b		
	2018	2017	2016
US West Coast	11.5	14.0	12.9
US Gulf Coast Coking	7.0	9.9	9.1
Rotterdam Complex	2.5	4.3	2.5
Singapore	1.4	3.6	2.8

Industry gross refining margins were lower on average in 2018 than in 2017 in each of the key refining hubs of Europe, Singapore and the USA. Oil products demand growth has slowed in line with global economic growth. Periods of high crude prices led to reductions in oil products demand. Refinery capacity additions, especially in the Middle East and Asia, combined with tempered demand growth have led to generally lower refinery utilisations. Refinery activity continued to be low in Latin America.

Looking forward, we believe refinery margins may be impacted by the introduction of the new International Maritime Organization shipping fuel specification in 2020.

## PETROCHEMICAL MARGINS

Cracker industry margins	\$/tonne		
	2018	2017	2016
North East/South East Asia naphtha	511	688	672
Western Europe naphtha	653	727	598
US ethane	332	471	450

Cracker industry margins fell in all three main regions in 2018. Asian naphtha cracker margins fell sharply in the fourth quarter, amid continuing concerns over the potential impact of US tariffs, while US ethane cracker margins came under pressure from new cracker unit start-ups. Supported by healthy European demand, European naphtha cracker margins decreased the least during 2018.

The outlook for petrochemical margins in 2019 and beyond depends on supply and demand balances and feedstock costs. Demand for petrochemicals is closely linked to economic growth. Product prices reflect prices of raw materials, which are closely linked to crude oil and natural gas prices. The balance of these factors will drive margins.

The statements in this "Market overview" section, including those related to our price forecasts, are forward-looking statements based on management's current expectations and certain material assumptions and, accordingly, involve risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied herein. See "About this Report" on pages 05-06 and "Risk factors" on pages 15-20.

# Summary of results

Key statistics	\$ million, except where indicated		
	2018	2017	2016
Income for the period	23,906	13,435	4,777
Current cost of supplies adjustment	458	(964)	(1,085)
Total segment earnings [A][B], of which:	24,364	12,471	3,692
Integrated Gas	11,444	5,078	2,529
Upstream	6,798	1,551	(3,674)
Downstream	7,601	8,258	6,588
Corporate	(1,479)	(2,416)	(1,751)
Capital investment [B]	24,779	24,006	79,877
Divestments [B]	7,102	17,340	4,984
Operating expenses [B]	39,316	38,083	41,549
Return on average capital employed [B]	9.4%	5.8%	3.0%
Gearing at December 31 [C]	20.3%	25.0%	29.1%
Oil and gas production (thousand boe/d)	3,666	3,664	3,668
Proved oil and gas reserves at December 31 (million boe)	11,578	12,233	13,248

[A] Segment earnings are presented on a current cost of supplies basis. See Note 4 to the "Consolidated Financial Statements" on pages 181-184.

[B] See "Non-GAAP measures reconciliations" on pages 263-264.

[C] With effect from 2018, the net debt calculation has been amended. See Note 14 to the "Consolidated Financial Statements" on page 191. Gearing as previously published at December 31, 2017, and at December 31, 2016, was 24.8% and 28.0% respectively.

## EARNINGS 2018-2017

Income for the period was \$23,906 million in 2018, compared with \$13,435 million in 2017. After current cost of supplies adjustment, total segment earnings were \$24,364 million in 2018, compared with \$12,471 million in 2017.

Earnings on a current cost of supplies basis (CCS earnings) exclude the effect of changes in the oil price on inventory carrying amounts, after making allowance for the tax effect. The purchase price of volumes sold in the period is based on the current cost of supplies during the same period, rather than on the historic cost calculated on a first-in, first-out (FIFO) basis. Therefore, when oil prices are decreasing, CCS earnings are likely to be higher than earnings calculated on a FIFO basis and, when prices are increasing, CCS earnings are likely to be lower than earnings calculated on a FIFO basis.

Integrated Gas earnings in 2018 were \$11,444 million, compared with \$5,078 million in 2017. The increase was mainly driven by higher realised oil, gas, and liquefied natural gas (LNG) prices, higher gains on divestments, increased contributions from LNG trading, the impact of fair value accounting of commodity derivatives, and higher production. These effects were partly offset by the absence of a gain from the strengthening Australian dollar on a deferred tax position in 2017 and by higher operating expenses. See "Integrated Gas" on pages 29-30.

Upstream earnings in 2018 were \$6,798 million, compared with \$1,551 million in 2017. The increase was mainly driven by higher realised oil and gas prices, lower impairment charges, the absence of a charge as a result of US tax reform legislation in 2017, and lower well write-offs. This was partly offset by the movements in deferred tax positions, lower gains on divestments, lower production, and a charge related to the impact of the weakening Brazilian real on a deferred tax position. See "Upstream" on pages 36-37.

Downstream earnings in 2018 were \$7,601 million, compared with \$8,258 million in 2017. The decrease was mainly driven by higher operating expenses, unfavourable exchange rate effects, and lower realised base chemicals and refining margins. This was partly offset by higher realised marketing margins, lower charges related to provisions, the impact of fair value accounting of commodity derivatives and higher gains on divestments. There was also a charge in 2017 as a result of US tax reform legislation. See "Downstream" on pages 53-54.

Corporate earnings in 2018 were a loss of \$1,479 million, compared with a loss of \$2,416 million in 2017. The lower loss was mainly driven by lower net foreign exchange losses and net interest expense, partially offset by higher costs. There was also a charge in 2017 as a result of US tax reform legislation. See "Corporate" on page 61.

## EARNINGS 2017-2016

Income for the period was \$13,435 million in 2017, compared with \$4,777 million in 2016. After current cost of supplies adjustment, total segment earnings were \$12,471 million in 2017, compared with \$3,692 million in 2016. BG Group plc (BG) was consolidated within Shell's results with effect from February 2016 following its acquisition.

Integrated Gas earnings in 2017 were \$5,078 million, compared with \$2,529 million in 2016. The increase was mainly driven by higher realised oil, gas, and LNG prices, as well as the impact of the strengthening Australian dollar on a deferred tax position, and lower impairment charges. These effects were partly offset by the impacts in 2017 of a charge for fair value accounting of commodity derivatives, a charge as a result of US tax reform legislation, and by lower liquids production partially offset by higher LNG liquefaction volumes.

Upstream earnings in 2017 were \$1,551 million, compared with a loss of \$3,674 million in 2016. The improvement was mainly driven by higher realised oil and gas prices. Higher gains on divestments and lower depreciation charges were partly offset by higher impairment charges. Overall, there were higher taxation charges. Beneficial movements in deferred tax positions were more than offset by a charge in 2017 as a result of US tax reform legislation and the absence of a gain related to the impact of a strengthening Brazilian real on a deferred tax position in 2016.

Downstream earnings in 2017 were \$8,258 million, compared with \$6,588 million in 2016. The increase was mainly driven by improved refining and chemicals industry conditions, the impact of fair value accounting of commodity derivatives, and lower taxation, redundancy and impairment charges. This was partly offset by lower gains on divestments and higher depreciation charges.

Corporate earnings in 2017 were a loss of \$2,416 million, compared with a loss of \$1,751 million in 2016. The higher loss was mainly driven by higher interest expense and net foreign exchange losses, partly offset by lower operating expenses. There was also a charge in 2017 as a result of US tax reform legislation.

## PRODUCTION AVAILABLE FOR SALE

Oil and gas production available for sale in 2018 was 1,338 million barrels of oil equivalent (boe), or 3,666 thousand boe per day (boe/d), compared with 1,338 million boe, or 3,664 thousand boe/d, in 2017. In 2018, increased production from new field start-ups and ramp-ups, as well as lower maintenance activity was offset by the impact of divestments and field declines.

### Oil and gas production available for sale [A]

	2018	2017	2016
Crude oil and natural gas liquids	1,749	1,730	1,679
Synthetic crude oil	53	91	146
Bitumen	–	4	13
Natural gas [B]	1,863	1,839	1,830
Total	3,666	3,664	3,668
Of which:			
Integrated Gas	957	887	884
Upstream	2,709	2,777	2,784

[A] See "Oil and gas information" on pages 49-50.

[B] Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

## PROVED RESERVES

The proved oil and gas reserves of Shell subsidiaries and the Shell share of the proved oil and gas reserves of joint ventures and associates are summarised in "Oil and gas information" on pages 44-46 and set out in more detail in "Supplementary information - oil and gas (unaudited)" on pages 215-226.

Before taking production into account, our proved reserves increased by 733 million boe in 2018. This comprised increases of 1,337 million boe from Shell subsidiaries and decreases of 604 million boe from the Shell share of joint ventures and associates, mainly related to the Groningen field. The increase from Shell subsidiaries included 997 million boe from revisions and reclassifications, 474 million boe from extensions and discoveries, and 42 million boe from improved recovery, partly offset by net sales of minerals in place of 175 million boe.

In 2018, total oil and gas production was 1,388 million boe, of which 1,338 million boe was available for sale and 50 million boe was consumed in operations. Production available for sale from subsidiaries was 1,179 million boe and 43 million boe was consumed in operations. The Shell share of the production available for sale of joint ventures and associates was 159 million boe and 7 million boe was consumed in operations.

Accordingly, after taking production into account, our proved reserves decreased by 655 million boe in 2018, to 11,578 million boe at December 31, 2018, with an increase of 117 million boe from subsidiaries and a decrease of 771 million boe from the Shell share of joint ventures and associates.

## CAPITAL INVESTMENT AND OTHER INFORMATION

Capital investment was \$24.8 billion in 2018, compared with \$24.0 billion in 2017.

Divestments were \$7.1 billion in 2018, compared with \$17.3 billion in 2017. Operating expenses increased by \$1.2 billion in 2018, to \$39.3 billion.

Our return on average capital employed (ROACE) increased to 9.4%, compared with 5.8% in 2017, mainly driven by a higher income in 2018.

Gearing was 20.3% at the end of 2018, compared with 25.0% at the end of 2017, driven by debt repayments and an increased cash balance in 2018. With effect from 2018, the net debt calculation has been amended and the prior period comparative has been revised. See Note 14 to the "Consolidated Financial Statements" on page 191.

## SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

See Note 2 to the "Consolidated Financial Statements" on pages 172-181.

## LEGAL PROCEEDINGS

See Note 25 to the "Consolidated Financial Statements" on pages 211-213.

## Summary of results Continued

### SELECTED FINANCIAL DATA

The selected financial data set out below are derived, in part, from the "Consolidated Financial Statements". This data should be read in conjunction with the "Consolidated Financial Statements" and related Notes, as well as with this Strategic Report.

<b>Consolidated Statement of Income and of Comprehensive Income data</b>					
	2018	2017	2016	2015	\$ million 2014
Revenue	388,379	305,179	233,591	264,960	421,105
Income for the period	23,906	13,435	4,777	2,200	14,730
Income/(loss) attributable to non-controlling interest	554	458	202	261	(144)
Income attributable to Royal Dutch Shell plc shareholders	23,352	12,977	4,575	1,939	14,874
Comprehensive income/(loss) attributable to Royal Dutch Shell plc shareholders	24,475	18,828	(1,374)	(811)	2,692

<b>Consolidated Balance Sheet data</b>					
	2018	2017	2016	2015	\$ million 2014
Total assets	399,194	407,097	411,275	340,157	353,116
Total debt	76,824	85,665	92,476	58,379	45,540
Share capital	685	696	683	546	540
Equity attributable to Royal Dutch Shell plc shareholders	198,646	194,356	186,646	162,876	171,966
Non-controlling interest	3,888	3,456	1,865	1,245	820

<b>Earnings per share</b>					
	2018	2017	2016	2015	\$ 2014
Basic earnings per €0.07 ordinary share	2.82	1.58	0.58	0.31	2.36
Diluted earnings per €0.07 ordinary share	2.80	1.56	0.58	0.30	2.36

<b>Shares</b>					
	2018	2017	2016	2015	Million 2014
Basic weighted average number of A and B shares	8,282.8	8,223.4	7,833.7	6,320.3	6,311.5
Diluted weighted average number of A and B shares	8,348.7	8,299.0	7,891.7	6,393.8	6,311.6

# Performance indicators

These indicators enable management to evaluate Shell's performance against its strategy and operating plans. Those which are used in the determination of Executive Directors' remuneration are asterisked below and on the following page. See "Directors' Remuneration Report" on pages 119-147.

## FINANCIAL PERFORMANCE INDICATORS

### Total shareholder return \*

2018 (4.2)%	2017 30.0%
-------------	------------

Total shareholder return (TSR) is the difference between the share price at the beginning of the year and the share price at the end of the year (each averaged over 90 days), plus gross dividends delivered during the calendar year (reinvested quarterly), expressed as a percentage of the share price at the beginning of the year (averaged over 90 days). The data used are a weighted average in dollars for A and B shares. The TSRs of major publicly-traded oil and gas companies can be compared directly, providing a way to determine how we are performing in relation to our industry peers.

### Cash flow from operating activities (\$ million) \*

2018 53,085	2017 35,650
-------------	-------------

Cash flow from operating activities is the total of all cash receipts and payments associated with our sales of oil, gas, chemicals and other products. The components that provide a reconciliation from income for the period are listed in the "Consolidated Statement of Cash Flows". This indicator reflects our ability to generate cash to service and reduce our debt and for distributions to shareholders and investments. See "Liquidity and capital resources" on page 63.

### Free cash flow (\$ million) \*

2018 39,426	2017 27,621
-------------	-------------

Free cash flow is the sum of "Cash flow from operating activities" and "Cash flow from investing activities", which are listed in the "Consolidated Statement of Cash Flows". This indicator is used to evaluate cash available for financing activities, including dividend payments, after investment in maintaining and growing our business. See "Non-GAAP measures reconciliations" on page 264.

### Return on average capital employed \*

2018 9.4%	2017 5.8%
-----------	-----------

Return on average capital employed (ROACE) is defined as income for the period, adjusted for after-tax interest expense, as a percentage of average capital employed during the year. Capital employed is the sum of total equity and total debt. ROACE measures the efficiency of our utilisation of the capital that we employ and is a common measure of business performance. See "Summary of results" on page 24 and "Non-GAAP measures reconciliations" on page 264.

### Earnings on a current cost of supplies basis (\$ million)

2018 24,364	2017 12,471
-------------	-------------

### Earnings per share on a current cost of supplies basis (\$)

2018 2.85	2017 1.46
-----------	-----------

Earnings on a current cost of supplies basis (CCS earnings) is the income for the period, adjusted for the after-tax effect of oil-price changes on inventory. Segment earnings presented on a current cost of supplies basis is the earnings measure used by the Chief Executive Officer for the purposes of making decisions about allocating resources and assessing performance. See "Summary of results" on page 24 and "Non-GAAP measures reconciliations" on page 263.

CCS earnings per share, which is on a diluted basis above, is calculated by dividing CCS earnings attributable to shareholders (see "Non-GAAP measures reconciliations" on page 263) by the average number of shares outstanding over the year, increased by the average number of dilutive shares related to share-based compensation plans.

### Capital investment (\$ million)

2018 24,779	2017 24,006
-------------	-------------

Capital investment is defined as capital expenditure and investments in joint ventures and associates, as reported in the "Consolidated Statement of Cash Flows", plus exploration expense, excluding exploration wells written off, new finance leases and investments in Integrated Gas, Upstream and Downstream equity securities, adjusted to an accruals basis. Capital investment is a measure used to make decisions about allocating resources and assessing performance. See "Liquidity and capital resources" on page 63 and "Non-GAAP measures reconciliations" on page 263.

### Gearing

2018 20.3%	2017 25.0%
------------	------------

Gearing is defined as net debt (total debt less cash and cash equivalents) as a percentage of total capital (net debt plus total equity) at December 31. With effect from 2018, the net debt calculation includes the fair value of derivative financial instruments used to hedge foreign exchange and interest rate risks relating to debt, and associated collateral balances. The inclusion of these debt-related derivative balances reduces the volatility of net debt caused by fluctuations in foreign exchange and interest rates, and eliminates the potential impact of related collateral payments or receipts. The prior period comparative has been revised to reflect the change in net debt calculation. Gearing is a measure of the degree to which our operations are financed by debt. See "Liquidity and capital resources" on page 62.

## Performance indicators Continued

### OTHER PERFORMANCE INDICATORS

<b>Production available for sale (thousand boe/d)</b>	*
2018 3,666	2017 3,664
Production is the sum of all average daily volumes of unrefined oil and natural gas produced for sale by Shell subsidiaries and Shell's share of those produced for sale by joint ventures and associates. The unrefined oil comprises crude oil, natural gas liquids, synthetic crude oil and bitumen. The gas volume is converted into equivalent barrels of oil to make the summation possible. See "Summary of results" on page 25.	
<b>LNG liquefaction volumes (million tonnes)</b>	*
2018 34.3	2017 33.2
Liquefied natural gas (LNG) liquefaction volumes is a measure of the operational performance of our Integrated Gas business and LNG market demand. See "Integrated Gas" on page 29.	
<b>Refinery and chemical plant availability</b>	*
2018 91.9%	2017 90.7%
Refinery and chemical plant availability is the weighted average of the actual uptime of plants as a percentage of their maximum possible uptime. The weighting is based on the capital employed, adjusted for cash and non-current liabilities. This indicator is a measure of the operational excellence of our Downstream manufacturing facilities. See "Downstream" on page 53.	
<b>Project delivery on schedule</b>	*
2018 75%	2017 86%
<b>Project delivery on budget</b>	*
2018 97%	2017 93%
Project delivery reflects our capability to complete major projects on time and within budget on the basis of targets set in our annual Business Plan. Project delivery on schedule measures the percentage of projects delivered on schedule. Project delivery on budget reflects the aggregate cost against the aggregate budget for those projects.	
<b>Total recordable case frequency (injuries per million working hours)</b>	*
2018 0.9	2017 0.8
Total recordable case frequency (TRCF) is the number of employees and contract staff injuries requiring medical treatment or time off for every million hours worked. It is a standard measure of occupational safety. See "Environment and society" on page 67.	
<b>Number of operational Tier 1 and 2 process safety events</b>	*
2018 121	2017 166
A Tier 1 process safety event is an unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials, from a process with the greatest actual consequence resulting in harm to employees and contract staff, or a neighbouring community, damage to equipment, or exceeding a threshold quantity as defined by the API Recommended Practice 754 and IOGP Standard 456. A Tier 2 process safety event is a release of lesser consequence. See "Environment and society" on page 67.	

### Upstream and Integrated Gas greenhouse gas intensity (tonnes of CO<sub>2</sub> equivalent/tonne of hydrocarbon production available for sale)

2018 0.158	2017 0.166	*
Upstream/midstream greenhouse gas (GHG) intensity is a measure of GHG emissions (direct and indirect GHG emissions associated with imported energy, excluding emissions from exported energy), expressed in metric tonnes of carbon dioxide (CO <sub>2</sub> ) equivalent, emitted into the atmosphere per metric tonne of hydrocarbon production available for sale. See "Climate change and energy transition" on pages 77-78.		

### Refining greenhouse gas intensity (tonnes of CO<sub>2</sub> equivalent/UEDC™)

2018 1.05	2017 1.14	*
Refining GHG intensity is a measure of GHG emissions (direct and indirect GHG emissions associated with imported energy, excluding emissions from exported energy), expressed in metric tonnes of CO <sub>2</sub> equivalent, emitted into the atmosphere per unit of Utilized Equivalent Distillation Capacity (UEDC™). UEDC™ is a proprietary metric of Solomon Associates. It is a complexity-weighted normalisation parameter that reflects the operating cost intensity of a refinery based on size and configuration of its particular mix of process and non-process facilities. See "Climate change and energy transition" on pages 77-78.		

### Chemicals greenhouse gas intensity (tonnes of CO<sub>2</sub> equivalent/tonne petrochemicals produced)

2018 0.96	2017 0.95	*
Chemical GHG intensity is a measure of GHG emissions (direct and indirect GHG emissions associated with imported energy, excluding emissions from exported energy), expressed in metric tonnes of CO <sub>2</sub> equivalent, emitted into the atmosphere per metric tonne of steam cracker high value petrochemicals production. The 2017 comparative has been revised to align with the current definition (previously petrochemical production only). See "Climate change and energy transition" on pages 77-78.		

### Proved oil and gas reserves (million boe)

2018 11,578	2017 12,233
Proved oil and gas reserves are the total estimated quantities of oil and gas from Shell subsidiaries and Shell's share from joint ventures and associates that geoscience and engineering data demonstrate, with reasonable certainty, to be recoverable in future years from known reservoirs, at December 31, under existing economic conditions, operating methods and government regulations. Gas volumes are converted into barrels of oil equivalent (boe) using a factor of 5,800 standard cubic feet per barrel. Reserves are crucial to an oil and gas company, since they constitute the source of future production. Reserves estimates are subject to change due to a wide variety of factors, some of which are unpredictable. See "Risk factors" on pages 15-16, "Summary of results" on page 25, "Oil and gas information" on pages 44-46 and "Supplementary information - oil and gas (unaudited)" on pages 215-226.	

### Number of operational spills of more than 100 kilograms

2018 92	2017 104
The operational spills indicator is the number of incidents in respect of activities where we are the operator in which 100 kilograms or more of oil or oil products were spilled as a result of those activities and reached the environment. The 2017 number was updated from 99 to reflect the completion of investigations into spills. See "Environment and society" on page 68.	

### Direct greenhouse gas emissions (million tonnes of CO<sub>2</sub> equivalent)

2018 71	2017 73
Direct GHG emissions from facilities operated by Shell, expressed in CO <sub>2</sub> equivalent. See "Climate change and energy transition" on pages 77-78.	

# Integrated Gas

Key statistics	\$ million, except where indicated		
	2018	2017	2016
Segment earnings	11,444	5,078	2,529
Including:			
Revenue (including inter-segment sales)	48,617	36,652	29,190
Share of profit of joint ventures and associates	2,273	1,714	1,116
Interest and other income	2,230	687	765
Operating expenses [A]	6,014	5,471	6,479
Exploration	208	141	494
Depreciation, depletion and amortisation	4,850	4,965	4,509
Taxation charge	2,795	790	1,254
Capital investment [A]	4,460	3,827	26,214
Divestments [A]	3,124	3,077	352
Oil and gas production available for sale (thousand boe/d)	957	887	884
LNG liquefaction volumes (million tonnes)	34.3	33.2	30.9

[A] See "Non-GAAP measures reconciliations" on pages 263-264

## OVERVIEW

Our Integrated Gas business manages liquefied natural gas (LNG) activities and the conversion of natural gas into gas-to-liquids (GTL) fuels and other products, as well as our New Energies portfolio. It includes natural gas exploration and extraction, and the operation of upstream and midstream infrastructure necessary to deliver gas to market. It markets and trades natural gas, LNG, electricity and carbon-emission rights and also markets and sells LNG as a fuel for heavy-duty vehicles and marine vessels.

## BUSINESS CONDITIONS

Global oil demand grew by 1.2% in 2018, according to the International Energy Agency's Oil Market Report published in January 2019, with the Brent crude oil price averaging \$71 per barrel (/b), up \$17/b from 2017.

Global gas demand is estimated to have grown by about 3.2% in 2018. A combination of weather conditions, implementation of new policies such as the partial substitution of coal by gas-fired power generation in China, and global economic growth led to an increase in demand in most regions.

Global LNG imports grew by 28 million tonnes (9.6%) in 2018. LNG demand growth was supported by weather conditions, lower nuclear power generation and the start-up of new regasification capacity in Asia. China and India alone increased their regasification capacity by 19% and 33% from 2017 respectively, equal to 21 million tonnes per annum, in total. Supply growth was primarily driven by the start-up of new projects in Australia, the USA and Russia. The majority of additional LNG supply was absorbed by Asia, offsetting declines in the Middle East and North Africa.

Natural gas prices can vary from region to region.

In the USA, the natural gas price at the Henry Hub averaged \$3.1 per million British thermal units (MMBtu) in 2018, 3% higher than in 2017, and traded in a range of \$2.5-4.9/MMBtu.

In Europe, natural gas prices were higher than in 2017. The average price at the UK National Balancing Point was \$7.9/MMBtu, compared with \$5.8/MMBtu in 2017. At the main continental European gas trading hubs – in the Netherlands, Belgium and Germany – prices were also stronger, as reflected by stronger Dutch Title Transfer Facility prices.

Long-term contracted LNG prices in the Asia-Pacific region generally increased in 2018 as they are predominantly indexed to the price of Japan Customs-cleared Crude, which has increased in line with global oil prices. North Asia spot prices (reflected by the Japan Korea Marker) also increased due to relatively strong demand, particularly from China.

See "Market overview" on pages 21-23.

## PRODUCTION AVAILABLE FOR SALE

In 2018, production was 349 million barrels of oil equivalent (boe), or 957 thousand boe per day (boe/d), compared with 324 million boe, or 887 thousand boe/d in 2017. Natural gas production increased by 9% compared with 2017, mainly due to the stronger operational performance of our assets, namely higher availability at Pearl GTL in 2018, and improved performance combined with full year production of all three trains at Gorgon in Australia, partially offset by the divestment of Bongkot field in Thailand. Liquids production increased 5%, mainly due to higher availability at Pearl GTL in Qatar.

## LNG LIQUEFACTION VOLUMES

LNG liquefaction volumes of 34.3 million tonnes in 2018 were 3% higher than in 2017, driven by increased feed gas availability in Atlantic LNG in Trinidad and Tobago, Queensland Curtis LNG (QCLNG) in Australia and Oman LNG; less maintenance mainly in Gorgon and QCLNG in Australia; and incremental volumes from Gorgon with all trains operational for a full year; partly offset by divestments of our interests in Woodside Petroleum Limited (Woodside) in 2017 and Malaysia LNG in 2018.

LNG sales volumes of 71.21 million tonnes in 2018 were 8% higher than in 2017, driven by our increased LNG purchases from third parties and higher LNG liquefaction volumes.

### EARNINGS 2018-2017

Segment earnings in 2018 were \$11,444 million, which included a net gain of \$2,045 million. The net gain primarily reflected gains of \$1,937 million on sale of assets, mainly related to the divestment of assets in Thailand, New Zealand and India. It also comprised a gain of \$481 million related to the fair value accounting of commodity derivatives and impairment charges of \$371 million related to investments in Trinidad and Tobago and Shell's investment in a joint venture.

Segment earnings in 2017 were \$5,078 million, which included a net charge of \$190 million. The net charge mainly reflected a charge of \$445 million on fair value accounting of commodity derivatives and a charge of \$412 million as a result of US tax reform legislation, partly offset by a gain of \$636 million from the strengthening Australian dollar on a deferred tax position.

Excluding the net gain and the net charge described above, segment earnings were \$9,399 million in 2018 compared with \$5,268 million in 2017. Earnings were positively impacted by increased contributions from trading and higher realised oil, gas and LNG prices (around \$4,200 million), increased LNG volumes from various assets across the portfolio (around \$615 million). Earnings were negatively impacted by higher operating expenses (around \$502 million of which \$246 million relates to growth of New Energy activities) and lower dividends due to divestments (around \$274 million).

In 2018, the impact of exchange rate movements of the Australian dollar on deferred tax balances was significantly reduced, as a result of the change in the fiscal functional currency of a number of Shell entities in Australia to the US dollar with effect from January 1, 2018.

### EARNINGS 2017-2016

Segment earnings in 2017 were \$5,078 million, which included a net charge of \$190 million as described above.

Segment earnings in 2016 were \$2,529 million, which included a net charge of \$1,171 million. The net charge included impairments of \$451 million, reported mainly in share of profit of joint ventures and associates, the reassessment of a deferred tax asset in Australia of \$533 million, onerous contract provisions in Europe and the USA of \$390 million, and redundancy and restructuring charges of \$245 million, partly offset by gains on divestments of \$212 million and on the accounting reclassification of Shell's interest in Woodside in Australia of \$479 million (both reported in interest and other income).

Excluding the net charges described above, segment earnings were \$5,268 million in 2017 compared with \$3,700 million in 2016. Earnings were positively impacted by higher realised oil, gas and LNG prices (around \$1,620 million), lower operating expenses (around \$110 million), lower exploration charges (around \$170 million), and lower well write-offs (around \$100 million). Earnings were negatively impacted by a total of around \$230 million from lower liquids production, mainly as a result of the shutdown at Pearl, partially offset by higher LNG liquefaction volumes across the portfolio. Other items, which included lower contributions from trading and higher taxation, had a net negative impact of around \$200 million.

### CAPITAL INVESTMENT AND DIVESTMENTS

Capital investment in 2018 was \$4.5 billion, compared with \$3.8 billion in 2017.

Divestments in 2018 were \$3.1 billion, in line with \$3.1 billion in 2017.

### PORTFOLIO AND BUSINESS DEVELOPMENT

Key portfolio events in 2018 included the following:

- In February, we completed the acquisition of First Utility, a leading independent UK household energy and broadband provider.
- In March, we completed the acquisition of a 43.8% interest in Silicon Ranch Corporation, a developer, owner and operator of solar energy assets in the USA.
- In July, with our partners, we completed the dilution of interests in LNG Canada to Petronas. As a result, our interest in LNG Canada was reduced from 50% to 40%.
- In August, we acquired ENI's interest in the North Coast Marine Area (NCMA) block offshore Trinidad and Tobago, increasing our interest from 63.2% to 80.5%.
- In December, we acquired Total's 26% interest in the Hazira LNG and Port venture, increasing our interest from 74% to 100%.
- In December, we formed 50/50 joint ventures with EDF Renewables and EDP Renewables to build wind farms off the coast of New Jersey and Massachusetts, respectively, in the USA.

In February 2019, we acquired sonnen, a provider of smart energy storage systems and innovative energy services for households, and Limejump, a UK-based digital energy-technology company.

The following major milestones were reached in 2018:

- In June, the final investment decision was taken on the Borssele III and IV offshore wind farm projects in the Netherlands (Shell interest 20%).
- In October, the final investment decision was taken on LNG Canada (Shell interest 40%). Construction has started and first LNG is expected before the middle of the next decade.
- In December, wells were opened at the Prelude floating liquified natural gas (FLNG) facility in Australia (Shell interest 67.5%). During this initial phase of production, gas and condensate are produced and moved through the facility. Once this has been completed, the facility will be prepared for reliable production of LNG and LPG.

We continued to divest selected assets during 2018, including:

- In Greece, we sold our 49% interests in Attiki Gas Supply Company S.A. and Attiki Natural Gas Distribution Company S.A.
- In India, we reduced our interest in Mahanagar Gas Limited from 32.5% to 10%.
- In Malaysia, we sold our 15% interest in Malaysia LNG Tiga Sdn Bhd to the Sarawak State Financial Secretary.
- In New Zealand, we sold our shares in Shell entities to OMV.
- In Thailand, we sold our 22.2% interest in the offshore Bongkot field and adjoining acreage to PTT Exploration & Production Public Company Limited.

In November 2018, we agreed to sell our interest in the undeveloped Sunrise gas field in the Timor Sea (Shell interest 26.6%) to the government of Timor-Leste. The transaction is pending regulatory approval and expected to close in the first half of 2019.

## BUSINESS AND PROPERTY

Our Integrated Gas business is described below by country.

### EUROPE

#### Gibraltar

We have a 51% interest in the first LNG regasification facility in Gibraltar, construction of which was completed in 2018.

#### Netherlands

We have access to import and storage capacity at the GATE LNG terminal in the Netherlands (Shell capacity rights 1.4 million tonnes per annum, mtpa), enabling us to supply LNG to marine and road transport customers in northwest Europe. We are also using the terminal to supply LNG to our growing truck-refuelling network in the Netherlands.

#### Norway

Gasnor AS (Shell interest 100%) provides LNG fuel for ships and industrial customers and has a natural gas pipeline network.

#### UK

We have a 50% interest in the Dragon LNG regasification terminal, with long-term arrangements in place governing the use of capacity rights.

#### Rest of Europe

We also have interests in Cyprus.

## ASIA (INCLUDING THE MIDDLE EAST AND RUSSIA)

#### Brunei

We have a 25% interest in Brunei LNG Sendirian Berhad, which sells most of its LNG on long-term contracts to customers in Asia.

#### China

We jointly develop and produce from the onshore Changbei tight-gas field under a PSC with China National Petroleum Corporation (CNPC). In 2016, we completed the Changbei I development programme under the PSC and subsequently handed over the production operatorship to CNPC. In December 2017, we took the final investment decision on the Changbei II Phase 1 project, and we expect the drilling programme and construction of facilities to be completed in 2021. Shell remains the operator of Changbei II.

In 2018, we completed the handover of the Jinqiu block in Sichuan to CNPC.

#### India

We have a 30% interest in the producing oil and gas field Panna/Mukta. We also have a 30% interest in the Mid Tapti and South Tapti fields, which ceased production in the first quarter of 2016.

We decreased our interest in the publicly-listed Mahanagar Gas Limited from 32.5% to 10%, a natural gas distribution company in Mumbai.

In December, we acquired Total's 26% interest in the Hazira LNG and Port venture, increasing our interest from 74% to 100%. The Hazira LNG and Port venture, located in the state of Gujarat on the west coast, comprises two companies: Hazira LNG Pvt Ltd, which operates a regasification terminal; and Hazira Port Pvt Ltd, which manages a cargo port at Hazira.

#### Indonesia

We have a 35% interest in the INPEX Masela Ltd joint venture which owns and operates the offshore Masela block. In April 2016, the joint venture received a notification from the Indonesian government authorities instructing it to re-propose a plan for the Abadi gas field based on an onshore LNG project. The partners are preparing a new Plan of Development for submission to the government of Indonesia in 2019.

#### Iran

Shell transactions with Iran are disclosed separately. See "Section 13(r) of the US Securities Exchange Act of 1934 Disclosure" on page 262.

#### Malaysia

We operate a GTL plant, Shell MDS (Shell interest 72%), adjacent to the Malaysia LNG facilities. Using Shell technology, the plant converts gas into high-quality middle distillates, drilling fluids, waxes and specialty products. In 2018, we sold our 15% interest in Malaysia LNG Tiga Sdn Bhd to the Sarawak State Financial Secretary.

#### Oman

We have a 30% interest in Oman LNG LLC, which mainly supplies Asian markets under long-term contracts. We also have an 11% interest in Qalhat LNG, which is part of the Oman LNG complex.

#### Qatar

We operate the Pearl GTL plant (Shell interest 100%) in Qatar under a development and PSC with the government. The fully-integrated facility has capacity for production, processing and transportation of 1.6 billion standard cubic feet per day (scf/d) of gas from Qatar's North Field. It has an installed capacity of about 140 thousand boe/d of high-quality liquid hydrocarbon products and 120 thousand boe/d of natural gas liquids (NGL) and ethane.

We have a 30% interest in Qatargas 4, which comprises integrated facilities to produce about 1.4 billion scf/d of gas from Qatar's North Field, an onshore gas-processing facility and one LNG train with a collective production capacity of 7.8 mtpa of LNG and 70 thousand boe/d of condensate and NGL.

#### Russia

We have a 27.5% interest in Sakhalin-2, the joint venture with Gazprom, an integrated oil and gas project located in a subarctic environment.

We have a 50% interest in Salym Petroleum Development N.V., the joint venture with GazpromNeft, developing the Salym fields in western Siberia, Khanty Mansiysk Autonomous District, where production was approximately 120 thousand boe/d in 2018.

We have a 50% interest in Khanty-Mansiysk Petroleum Alliance VOF partnership with GazpromNeft.

With effect from January 1, 2019, Salym and Khanty-Mansiysk Petroleum Alliance VOF partnership will be reported in the Upstream segment. Comparative information will not be adjusted.

## Integrated Gas Continued

As a result of European Union and US sanctions prohibiting certain defined oil and gas activities in Russia, we suspended our support to Salyam and Khanty-Mansiysk Petroleum Alliance VOF partnership in relation to shale oil activities in 2014. Salyam and Khanty-Mansiysk Petroleum Alliance VOF partnership also suspended any shale oil related activities in 2014.

### Singapore

We have a 50% interest in a joint venture with KS Investments (the investment arm of Keppel Group) that holds a licence to supply LNG fuel for vessels in the Port of Singapore. We have aggregator licences to import LNG into Singapore.

### Rest of Asia

We also have interests in Myanmar.

## OCEANIA

### Australia

We have interests in offshore production, LNG liquefaction and exploration licences in the North West Shelf (NWS) and Greater Gorgon areas of the Carnarvon Basin, as well as in the Browse Basin and Timor Sea. Woodside is the operator on behalf of the NWS joint venture, which produced more than 500 thousand boe/d of gas and condensates in 2018.

We have a 25% interest in the Gorgon LNG joint venture, which is operated by Chevron. The venture started operating in 2016, producing from the offshore Gorgon and Jansz-Lo fields via a three train LNG plant on Barrow Island.

We are the operator of a permit in the Browse Basin in which two separate gas fields were found: Prelude and Concerto (Shell interest 67.5% in each). Our development concept for these fields is based on our floating liquified natural gas (FLNG) technology. The Prelude FLNG project, at its peak, is expected to produce about 130 thousand boe/d of gas and NGL, 3.6 mtpa of LNG, 1.3 mtpa of condensate and 0.4 mtpa of liquefied petroleum gas. During 2018, milestones included starting to commission the facilities and successful receipt of LNG and propane into the tanks. In December, wells were opened, entering the start-up phase. Our other interests in the basin include a joint arrangement, with Shell as the operator, for the Crux gas and condensate field (Shell interest 82%).

We are also a partner in the Browse joint arrangement (Shell interest 27%) covering the Brecknock, Calliance and Torosa gas fields, which is operated by Woodside. In November 2018, we agreed to sell our interest in the undeveloped Sunrise gas field in the Timor Sea (Shell interest 26.6%) to the government of Timor-Leste. We are a partner in both Shell-operated and other exploration joint arrangements in multiple basins, including Bonaparte, Browse, Exmouth Plateau, Greater Gorgon and Outer Canning.

We have a 50% interest in Arrow, a Queensland-based joint venture with CNPC. Arrow owns coal-bed methane assets and a domestic power business.

We have a 50% interest in train one and a 97.5% interest in train two of the Shell-operated QCLNG venture. The two-train liquefaction plant has an installed capacity of 8.5 mtpa. We also operate the venture's natural gas operations, which include wells, compression stations and processing plants, in Queensland's Surat Basin. We have interests ranging from 44% to 74% in 24 field compression stations and six central processing plants. Our production of natural gas from the onshore Surat Basin supplies the liquefaction plant and the domestic gas market.

A gas sales agreement between Arrow and QCLNG has been signed, under which gas from Arrow's Surat Basin fields would flow to the QCLNG venture, that would then both sell gas to local customers and export it through its gas plant on Curtis Island.

## AFRICA

### Egypt

We have interests of 35.5% and 38%, respectively, in trains one and two of the Egyptian LNG (ELNG) plant. In January 2014, force majeure notices were issued under the LNG agreements as a result of domestic gas diversions severely restricting volumes available to ELNG. These notices remain in place. See "Oil and gas information" on page 45.

### Mozambique

A feasibility study is ongoing for a potential GTL project, under a memorandum of understanding (MOU) signed with the government of Mozambique in 2017.

### Nigeria

We have a 25.6% interest in Nigeria LNG Ltd, which operates six LNG trains located on Bonny Island.

### Tanzania

We have a 60% interest in, and are the operator of, Blocks 1 and 4 offshore southern Tanzania. The blocks cover approximately 4,000 square kilometres of the Mafia Deep Offshore Basin and the northern part of the Rovuma Basin. We continue to develop a potential LNG project with partners in Block 2 in line with the Block 1 and 4 appraisal programme agreed with the Tanzanian government. We are engaging with the government to extend the Block 4 licence. The government has confirmed that the Block 4 licence, due to initially expire on October 31, 2017, remains in full force pending the grant of the licence extension.

### Rest of Africa

We have a 17.9% share in the West African Gas Pipeline Company Limited which owns and operates a 678-kilometre pipeline that transports gas from Nigeria to Ghana, Benin and Togo. We also have interests in Gabon and Morocco.

## NORTH AMERICA

### Canada

In 2018, we took the final investment decision on LNG Canada, a liquified natural gas project in Kitimat, British Columbia. We also completed the dilution of interest from 50% to 40% in LNG Canada to Petronas. With LNG Canada's other joint venture partners also having taken final investment decisions, construction started in October 2018. First LNG is expected before the middle of the next decade.

### USA

We have offtake rights to 100% of the capacity (2.5 mtpa) of the Kinder Morgan-owned Elba Island liquefaction plant, which is under construction. Elba Island also has a regasification terminal in which we have contracted capacity of 11.6 mtpa.

We have 13.1 mtpa of contracted capacity in the Lake Charles regasification terminal in Louisiana. We are also evaluating a project to convert the existing regasification facility owned by Energy Transfer into a liquefaction plant in which we would have capacity rights.

## SOUTH AMERICA

### Bolivia

We have a 100% interest in the La Vertiente, Los Suris and Tarija XX East blocks and the La Vertiente gas processing plant. We have a 37.5% interest in the Caipipendi block, where we mainly produce from the Margarita field. We are also exploring in Caipipendi block. We also have a 25% interest in the Tarija XX West block where we produce from the Itaú field. We have the rights to explore and further develop the onshore Huacareta block (Shell interest 100%) and we are exploring there.

### Peru

We have a non-Shell-operated 20% interest in the Peru LNG liquefaction plant.

### Trinidad and Tobago

We are the largest shareholder in all four trains at Atlantic LNG. We also have an interest in three concessions with producing fields - Central Block, East Coast Marine Area (ECMA) and NCMA blocks. Shell has a 65% interest in Central Block and 100% interest in ECMA. In August 2018, we acquired ENI's interest in the NCMA block, increasing our interest from 63.2% to 80.5%. We also have interests ranging from 35% to 100% in exploration activities in blocks 5(c), 5(d), 6(d), and Atlantic Area blocks 3, 5, and 6.

### Rest of South America

We have a 40% interest in a gas pipeline connecting Uruguay to Argentina.

## TRADING AND SUPPLY

Through our Shell Energy organisation, we market a portion of our share of equity production of LNG and trade LNG volumes around the world through our hubs in the UK, Dubai and Singapore. Trading and Supply also markets and trades natural gas, power and carbon-emission rights mainly in North America and Europe, of which a portion includes equity volumes from our upstream operations. We also market gas in Australia and Mexico, and power in Brazil.

## NEW ENERGIES

Our New Energies business explores emerging opportunities linked to the energy transition and invests in those where we believe sufficient value is available. We focus on new fuels for transport, such as advanced biofuels, hydrogen and charging for battery-electric vehicles; and power, including from low-carbon sources such as wind and solar, as well as natural gas. Alongside our work in new fuels and power, we are exploring how digital technologies can best support our activities and customers.

The New Energies portfolio is being built through organic growth and acquisitions. Most of these opportunities are in business sectors that are different from Shell's existing oil and gas businesses but have some similarities and/or adjacencies to our Downstream and gas and power trading businesses. New Energies companies are subject to the Shell Control Framework. Some are not yet in full compliance and we are working to bring them into compliance with the Shell Control Framework in a fit-for-purpose manner.

### New fuels

We have a demonstration plant at the Shell Technology Centre Bangalore, India, that demonstrates a technology called IH2 that turns waste feedstock into transport fuel. The plant is in its final research and development stage, ahead of potentially scaling up for commercial production. We are also

investing in renewable natural gas (RNG) for use in natural-gas fuelled vehicles in the USA and in Europe. RNG is collected from landfill sites, food waste or manure and then processed until it is fully interchangeable with conventional natural gas.

In the USA, in August 2018, we announced plans to expand and upgrade the JC Biomethane plant in Junction City, Oregon, which we acquired in May 2018.

We are part of a joint-venture, H2 Mobility Germany to install hydrogen fuelling pumps at around 100 locations across Germany during 2019. Shell is taking part in several other initiatives to encourage the adoption of hydrogen-electric energy as a transport fuel.

Shell has also opened 26 hydrogen refuelling sites in Germany, the USA, the UK and Canada and has announced the construction of four stations in the Netherlands.

Shell offers fast charging services for electric vehicles (EV) at 26 retail sites in the Netherlands, China and the UK and is working with IONITY, a joint venture of automotive manufacturers, to offer 500 high-powered charging points across 10 European countries.

NewMotion, which we acquired at the end of 2017, operates private electric charge points in the Netherlands, Germany, France and the UK, for home and business use.

In January 2019, we acquired Greenlots, a California-based EV charging company. This acquisition marks Shell's entry into the US EV market providing EV charging solutions at scale, including vehicle charging points, smart software and grid services to commercial and residential customers.

### Power

We have interests in five onshore wind power projects in the USA and in one offshore wind power project - NoordzeeWind (Shell interest 50%) in the Netherlands. In total, our share of the energy capacity from these projects is more than 400 megawatts (MW).

In June 2018, the final investment decision was taken on the Borssele III and IV offshore wind farm projects in the Netherlands (Shell interest 20%). These wind farms are designed to have a total installed capacity of 731.5 MW. In December 2018, we formed 50/50 joint ventures with EDF Renewables and EDP Renewables to build wind farms off the coast of New Jersey and Massachusetts, respectively. This marks our entry into the US offshore wind market.

In 2018, we completed the acquisition of a 43.8% interest in Silicon Ranch Corporation, a developer, owner and operator of solar energy assets in the USA. In December 2018, a solar park started at Shell Moerdijk, the Netherlands, providing power to our chemicals plants.

In January 2019, we acquired a 49% interest in Cleantech Solar, which provides solar power to commercial and industrial customers across South-East Asia and India.

In February 2018, we completed the acquisition of First Utility, a leading independent UK household energy and broadband provider. In February 2019, we acquired sonnen, a provider of smart energy storage systems and innovative energy services for households, and Limejump, a UK-based digital energy-technology company.

## Integrated Gas Continued

### INTEGRATED GAS DATA TABLE

LNG liquefaction volumes		2018	2017	Million tonnes 2016
Australia		12.1	11.1 [A]	9.5 [A]
Brunei		1.6	1.6	1.6
Egypt		0.3	0.2	0.2
Malaysia [B]		0.6	1.3	1.3
Nigeria		5.1	5.2	4.5
Norway		0.1	0.1	0.1
Oman		2.4	2.0	2.0
Peru		0.8	0.9	0.9
Qatar		2.3	2.4	2.4
Russia		3.1	3.1	3.0
Trinidad and Tobago		5.8	5.3	5.4
Total		34.3	33.2	30.9

[A] Includes LNG liquefaction volumes related to our share in equity securities of Woodside, that were disposed of in 2017.

[B] Includes LNG liquefaction volumes related to our share in equity securities of Malaysia LNG Tiga, that were disposed of in 2018.

### LNG AND GTL PLANTS AT DECEMBER 31, 2018

LNG liquefaction plants in operation		Asset	Location	Shell interest (%)	100% capacity (mtpa)[A]
Europe					
	Norway	Gasnor	Bergen	100.0	0.3
Asia					
	Brunei	Brunei LNG	Lumut	25.0	7.8
	Oman	Oman LNG	Sur	30.0	7.1
		Qalhat LNG	Sur	11.0[B]	3.7
	Qatar	Qatargas 4	Ras Laffan	30.0	7.8
	Russia	Sakhalin LNG	Prigorodnoye	27.5	9.6
Oceania					
	Australia	Australia North West Shelf	Karratha	16.7	16.9
		Gorgon LNG T1	Barrow Island	25.0	5.2
		Gorgon LNG T2	Barrow Island	25.0	5.2
		Gorgon LNG T3	Barrow Island	25.0	5.2
		Queensland Curtis LNG T1	Curtis Island	50.0	4.3
		Queensland Curtis LNG T2	Curtis Island	97.5	4.3
Africa					
	Egypt	Egyptian LNG T1	Idku	35.5	3.6
		Egyptian LNG T2	Idku	38.0	3.6
	Nigeria	Nigeria LNG	Bonny	25.6	22.0
South America					
	Peru	Peru LNG	Pampa Melchorita	20.0	4.5
	Trinidad and Tobago	Atlantic LNG T1	Point Fortin	46.0	3.0
		Atlantic LNG T2/T3	Point Fortin	57.5	6.6
		Atlantic LNG T4	Point Fortin	51.1	5.2

[A] As reported by the operator.

[B] Interest, or part of the interest, is held via indirect shareholding.

**LNG liquefaction plants under construction**

	Asset	Location	Shell interest (%)	100% capacity (mtpa)
Oceania				
Australia	Prelude	Browse Basin	67.5	3.6
North America				
Canada	LNG Canada T1-2	Kitimat	40.0	14.0

**GTL plants in operation**

	Asset	Location	Shell interest (%)	100% capacity (b/d)
Asia				
Malaysia	Shell MDS	Bintulu	72.0	14,700
Qatar	Pearl	Ras Laffan	100.0	140,000

Key statistics	\$ million, except where indicated		
	2018	2017	2016
Segment earnings	6,798	1,551	(3,674)
Including:			
Revenue (including inter-segment sales)	47,733	40,192	32,936
Share of profit of joint ventures and associates	285	623	222
Interest and other income	600	1,188	839
Operating expenses [A]	12,157	12,656	14,501
Exploration	1,132	1,804	1,614
Depreciation, depletion and amortisation	13,006	17,303	16,779
Taxation charge/(credit)	8,791	2,409	(938)
Capital investment [A]	12,525	13,648	47,507
Divestments [A]	2,198	11,542	1,726
Oil and gas production available for sale (thousand boe/d)	2,709	2,777	2,784

[A] See "Non-GAAP measures reconciliations" on pages 263-264.

## OVERVIEW

Our Upstream business explores for and extracts crude oil, natural gas and natural gas liquids. It also markets and transports oil and gas, and operates infrastructure necessary to deliver them to market. We are also involved in the extraction of bitumen from mined oil sands and its conversion into synthetic crude oil.

## BUSINESS CONDITIONS

Global oil demand grew by 1.2 million barrels per day (b/d), or 1.2%, to 99.2 million b/d in 2018, according to the International Energy Agency's *Oil Market Report* published in January 2019. Brent crude oil, an international benchmark, traded between \$51 per barrel (/b) and \$86/b in 2018, ending the year at the lower price of \$51/b. It averaged \$71/b for the year, \$17/b higher than in 2017, and \$27/b higher than in 2016 when the average price was at its lowest average level since 2004.

On a yearly average basis, West Texas Intermediate crude oil traded at a \$6/b discount to Brent in 2018, compared with \$3/b in 2017. The discount widened from 2017, reflecting constrained pipeline capacity from the landlocked Cushing storage hub to the US Gulf Coast. US oil exports increased from 2017, which helped to limit further widening of the price differential.

Global gas demand is estimated to have grown by about 3.2% in 2018, which is higher than the average annual growth rate of 2.4% since the beginning of the century. A combination of weather conditions, implementation of new policies such as the partial substitution of coal by gas-fired power generation in China, and global economic growth led to an increase in demand in most regions.

In the USA, the natural gas price at the Henry Hub averaged \$3.1 per million British thermal units (MMBtu) in 2018, 3% higher than in 2017, and traded in a range of \$2.5-4.9/MMBtu. There was some downward pressure on prices due to strong supply growth, which averaged 11% higher than 2017, helped by higher oil prices and new gas pipeline capacity. However, gas prices were also supported by a range of factors, such as below-normal storage inventory levels, and demand growth due to colder than normal weather in the second half of 2018, the completion of LNG liquefaction projects, increased exports to Mexico by pipeline, and US industrial demand.

In Europe, natural gas prices were higher than in 2017. The average price at the UK National Balancing Point (NBP) was 33% higher in 2018. At the main continental gas trading hubs – in the Netherlands, Belgium and Germany – prices were also stronger, as reflected by stronger Dutch Title Transfer Facility (TTF) prices. European gas prices were supported by record prices for carbon dioxide (CO<sub>2</sub>) allowances (EUAs) which averaged €16/tCO<sub>2</sub> in 2018 compared to €6/tCO<sub>2</sub> in 2017, resulting in higher preference for gas over coal in power generation. Gas prices were also supported by lower nuclear power output, particularly in Belgium and Spain, lower than normal temperatures early in the year, and competition from North-East Asian markets for LNG supplies for storage replenishment ahead of winter.

See "Market overview" on pages 21-23.

## PRODUCTION AVAILABLE FOR SALE

In 2018, production was 989 million boe, or 2,709 thousand boe/d, compared with 1,014 million boe, or 2,777 thousand boe/d in 2017. Liquids production decreased by 2% and natural gas production decreased by 3% compared with 2017.

Decreases were mainly due to divestments (around 199 thousand boe/d) and field declines (around 66 thousand boe/d). Increases were mainly from new field start-ups and the continuing ramp-up of existing fields (around 173 thousand boe/d), in particular in the Permian Basin in the USA, Lula South in Brazil, Schiehallion, Loyal and Clair phase 2 in the UK, Kaikias and Stones in the US Gulf of Mexico, and stronger operational performance, which contributed additional volumes of around 38 thousand boe/d. Other items had a net negative impact of around 14 thousand boe/d.

## EARNINGS 2018-2017

Segment earnings in 2018 were \$6,798 million, which included a net gain of \$23 million. This included a net gain of \$886 million on sale of assets, mainly related to our divestments in Iraq, Malaysia, Oman and Ireland, as well as a gain of \$149 million related to the fair value accounting of commodity derivatives. These gains were partly offset by a charge of \$561 million related to the impact of the weakening Brazilian real on a deferred tax position, a net impairment charge of \$350 million mainly related to assets in North America and deep-water rig joint ventures, and a charge of \$90 million related to the release of historic currency differences.

Segment earnings in 2017 were \$1,551 million, which included a net charge of \$1,540 million. The net charge included impairment charges of \$2,557 million, mainly related to divestments of our oil sands interests in Canada, onshore assets in Gabon and our interest in the Corrib gas project in Ireland, a charge of \$1,089 million related to US tax reform legislation, and redundancy and restructuring charges of \$163 million. These charges were partly offset by gains on divestments of \$1,463 million, mainly related to a package of assets in the UK North Sea, a credit of \$772 million mainly reflecting the release of tax liabilities, and other items with a net positive impact of \$34 million.

Excluding the net gains described above, segment earnings in 2018 were \$6,775 million, compared with \$3,091 million in 2017. Earnings benefited from higher realised oil and gas prices (around \$4,770 million) and lower well write-offs (around \$400 million). These impacts were partly offset by the impact of movements in deferred tax positions (around \$1,520 million) and lower production volumes (around \$510 million).

## EARNINGS 2017-2016

Segment earnings in 2017 were \$1,551 million, which included a net charge of \$1,540 million as described above.

Segment earnings in 2016 were a loss of \$3,674 million, which included a net charge of \$970 million. The net charge included impairment charges of \$1,147 million, redundancy and restructuring charges of \$654 million; a \$235 million provision for onerous drilling rig contracts; \$198 million related to the reassessment of deferred tax positions in Malaysia; and a net charge on fair value accounting of certain commodity derivatives and gas contracts of \$145 million. These charges were partly offset by a gain of \$661 million related to the impact of a strengthening Brazilian real on a deferred tax position, divestment gains of \$645 million, and a credit of \$103 million reflecting a statutory tax rate reduction in the UK.

Excluding the net charges described above, segment earnings in 2017 were \$3,091 million compared with a loss of \$2,704 million in 2016, principally as a result of higher realised oil and gas prices, lower deferred tax positions and depreciation, partly offset by lower production volumes mainly due to divestments and higher well write-offs.

## CAPITAL INVESTMENT

Capital investment in 2018 was \$12.5 billion, compared with \$13.6 billion in 2017. Capital investment in 2017 included \$1.5 billion related to the acquisition of a 50% interest in 1745844 Alberta Ltd. (formerly known as Marathon Oil Canada Corporation). The lower capital investment in 2018 reflected our continuing efforts to improve capital efficiency by pursuing lower-cost development solutions, partly offset by increased investments in exploration acreage additions and lease renewals in Nigeria.

## DIVESTMENTS

Divestments in 2018 were \$2.2 billion, compared with \$11.5 billion in 2017. Divestments in 2018 were mainly the sale of our assets in Iraq (West Qurna 1 field), Ireland (Corrib gas project), Malaysia (North Sabah Enhanced Oil Recovery (EOR) PSC), Norway (Draugen and Gjøa fields), Oman (Mukhaizna oil field), the UK (Triton assets) and the USA (non-core net mineral acres in the Permian Basin).

## PORTFOLIO AND BUSINESS DEVELOPMENT

We took the following key portfolio decisions during 2018:

- In Argentina, we started developing three blocks in the Vaca Muerta shales basin – Cruz de Lorena and Sierras Blancas (Shell interest 90%) and Coiron Amargo Sur Oeste (Shell interest 80%).
- In Brazil's Santos Basin, we signed 35-year PSCs for the Saturno (Shell interest 50% as operator) and Tres Marias (Shell interest 40%) deep-water exploration blocks.
- Also in Brazil, we won four deep-water blocks in the Campos and Potiguar basins; we solely secured one exploration block as operator and secured three blocks in joint-bids (Shell interest 40%).
- Additionally, in Brazil, we took the final investment decisions (FID) for the Berbigão (P68) and Atapu I (P70) floating production, storage and offloading (FPSO) vessels (Shell interest 25%, subject to unitisation), and Mero I, located in the Libra block (Shell interest 20%).
- In Egypt, we approved the FID for the development of Phase 9B of the West Delta Deep Marine (WDDM) offshore concession (Shell interest 50%).
- In Kazakhstan, we took the FID for the development of the Karachaganak Gas Debonneking project (Shell interest 29.3%).
- In Malaysia, we took the FID for the development of the Gorek, Larak and Bakong gas fields in Block SK408 offshore Sarawak (Shell interest 30%) and the development of the Pegaga gas field in Block SK320 offshore Sarawak (Shell interest 20%).
- In Mauritania, we signed two PSCs with the government for the exploration and potential future production of hydrocarbons in the offshore blocks C-10 and C-19 (Shell interest 90% as operator). The blocks, which have a total area of approximately 23,675 square kilometres, are located in the West African Atlantic Margin exploration basin.
- In Mexico, we won nine deep-water exploration blocks; four blocks on our own (Shell interest 100%), four with our partner Qatar Petroleum International Limited (Shell interest 60%), and one with our partner Pemex Exploración y Producción (Shell interest 50%). The total area of these nine blocks is 18,996 square kilometres. We will be the operator of all nine blocks.
- In Nigeria, we renewed a number of onshore oil mining leases in the Niger Delta for 20 years (Shell interest 30%).
- Also in Nigeria, we took the FID on Assa North, Gbaran Enwhe and Gbaran Nodal Compression projects (Shell interest 30%).
- In the UK North Sea, we announced the FID for the redevelopment of the Penguins oil and gas field (Shell interest 50%). The project will use a FPSO and is expected to have a peak production of around 45 thousand boe/d.
- Also in the UK North Sea, we announced FIDs for development of our operated oil and gas fields – Fram (Shell interest 32%), Arran (Shell interest 44.6%) and Gannet E (Shell interest 50%) along with the Gannet Export infrastructure investment in the central North Sea and the Shearwater gas infrastructure hub; and the non-operated Alligin oil field West of Shetland (Shell interest 50%).

- Additionally, in the UK, we acquired a 22.5% non-operated interest in the P1830 licence and a 30% interest in the P1028 and P1189 licences; P1189 includes the Cambo discovery north-west of Shetland, where the successful conclusion of well-testing operations on the appraisal well was confirmed.
- In the US Gulf of Mexico, we announced the FID to develop the Vito deep-water field. Vito (Shell interest 63.1%) is expected to reach an average peak production of 100 thousand boe/d.

In January 2019, we announced the FID for the Basrah Gas Company Natural Gas liquids expansion project in Iraq that will increase the capacity to 1.4 billion scf/d (Shell interest 44%).

In February 2019, we agreed the heads of terms for the resolution of the OML 118 negotiations, including the PSC dispute with the Nigerian National Petroleum Corporation (NNPC), following which we have a clear commercial framework for a potential Bonga South West Aparo FID, and announced an invitation to tender.

We achieved the following operational milestones in 2018:

- In Brazil, we announced first production from our fourteenth FPSO (P69), in Lula Extreme South, which is expected to ramp up to full production capacity in 2019 (Shell interest 25%, pre-unitisation).
- In Nigeria, we announced a notable discovery, Epu Deep, which is a near-field gas discovery in the greater Gbaran area, onshore Niger Delta. It was discovered in the Epu Field block OML 28, located beneath the producing Epu Field in the Central Swamp area of the Niger Delta (Shell interest 30%).
- In the UK, we announced the start-up of the second phase of the Clair field, with an expected peak production of 106 thousand boe/d (Shell interest 28%).
- In the US Permian Basin, we nearly doubled our production in 2018 and matured an inventory of resources in excess of 1 billion boe that breaks even at less than \$40 per barrel.
- In the US Gulf of Mexico, we announced one of our largest exploration finds in the past decade from the Whale deep-water well (Shell interest 60%). It was discovered in the Alaminos Canyon Block 772, adjacent to the Shell-operated Silvertip field and approximately 16 kilometres from the Shell-operated Perdido platform.
- Also, in the US Gulf of Mexico, we announced a large deep-water discovery, in the Dover well (Shell interest 100%). The Dover discovery is our sixth in the Norphlet geologic play. It is located approximately 21 kilometres from the Appomattox deep-water platform.
- We also completed the construction of the Appomattox deep-water platform in the US Gulf of Mexico. We expect to start production in 2019, with an expected average peak production of approximately 175,000 thousand boe/d (Shell interest 79%).
- Additionally, in the US Gulf of Mexico, we commenced production from Coulomb phase 2 (Shell interest 100%).
- We announced the start of production of Kaikias Phase 1, a subsea development in the US Gulf of Mexico with an estimated peak production of 40 thousand boe/d (Shell interest 80%). It will produce oil and gas through a subsea tie-back to the nearby Shell-operated Ursa production hub.

In February 2019, we announced the start of production from our fifteenth FPSO (P67), in Lula North, which is expected to ramp up to full production capacity in 2019 (Shell interest 25%, pre-unitisation).

In the Netherlands, the shareholders of the Nederlandse Aardolie Maatschappij B.V. (NAM) (Shell interest 50%) and the Dutch government signed a heads of agreement (HoA) that includes measures to support the reduction of production and to ensure the financial robustness of NAM. As part of the agreement, NAM's shareholders have agreed for NAM not to declare dividends for 2018 or 2019.

We continued to divest selected assets during 2018, including:

- In Iraq, we sold our 19.6% interest in the West Qurna 1 field. We also handed over operations of the Majnoon field to the Iraqi government.
- In Ireland, we sold our 45% interest in the Corrib gas project.
- In Malaysia, we completed the sale of our 50% interest in the 2011 North Sabah EOR Production Sharing Contract.
- In Norway, we sold our entire 44.6% interest in the Draugen field and 12% interest in the Gjøa field.
- In Oman, we sold our 17% interest in the Mukhaizna oil field.
- In the UK, we sold our interest in the Triton Cluster, which comprises the central UK North Sea assets: Bittern (Shell interest 39.6%), Triton FPSO (Shell interest 26.4%), Gannet E (Shell interest 50%) and Belinda/Evelyn (Shell interest 100%).
- In the US Permian Basin, we divested approximately 10,500 non-core net mineral acres and primarily undeveloped assets.

In Denmark, we announced the sale of our 36.8% non-operating interest in our joint venture, the Danish Underground Consortium. The transaction is expected to complete in 2019, subject to partner and regulatory approvals.

### BUSINESS AND PROPERTY

Our subsidiaries, joint ventures and associates are involved in all aspects of upstream activities, including matters such as land tenure, entitlement to produced hydrocarbons, production rates, royalties, pricing, environmental protection, social impact, exports, taxes and foreign exchange.

The conditions of the leases, licences and contracts under which oil and gas interests are held vary from country to country. In almost all cases outside North America, the legal agreements are generally granted by, or entered into with, a government, state-owned company, government-run oil and gas company or agency, and the exploration risk usually rests with the independent oil and gas company. In North America, these agreements may also be with private parties that own mineral rights. Of these agreements, the following are most relevant to our interests:

- Licences (or concessions), which entitle the holder to explore for hydrocarbons and exploit any commercial discoveries. Under a licence, the holder bears the risk of exploration, development and production activities, and is responsible for financing these activities. In principle, the licence holder is entitled to the totality of production less any royalties in kind. The government, state-owned company or government-run oil and gas company may sometimes enter into a joint arrangement as a participant sharing the rights and obligations of the licence but usually without sharing the exploration risk. In a few cases, the state-owned company, government-run oil and gas company or agency has an option to purchase a certain share of production.
- Lease agreements, which are typically used in North America and are usually governed by terms similar to licences. Participants may include governments or private entities, and royalties are either paid in cash or in kind.

- PSCs entered into with a government, state-owned company or government-run oil and gas company. PSCs generally oblige the independent oil and gas company, as contractor, to provide all the financing and bear the risk of exploration, development and production activities in exchange for a share of the production. Usually, this share consists of a fixed or variable part that is reserved for the recovery of the contractor's cost (cost oil). The remaining production is split with the government, state-owned company or government-run oil and gas company on a fixed or volume/revenue-dependent basis. In some cases, the government, state-owned company or government-run oil and gas company will participate in the rights and obligations of the contractor and will share in the costs of development and production. Such participation can be across the venture or on a field-by-field basis. Additionally, as the price of oil or gas increases above certain predetermined levels, the independent oil and gas company's entitlement share of production normally decreases, and vice versa. Accordingly, its interest in a project may not be the same as its entitlement.

## EUROPE

### Denmark

We have a non-operating interest in a producing concession in Denmark (Shell interest 36.8%). In October 2018, we announced the sale of this non-operating interest in the Danish Underground Consortium. The transaction is expected to complete in 2019, subject to partner and regulatory approvals.

### Italy

We have a 39% interest in the Val d'Agri producing concession, operated by ENI.

We also have a 25% interest in the Tempa Rossa concession operated by Total. The start-up of production at the Tempa Rossa field is expected in 2019.

### Netherlands

Shell and ExxonMobil are 50:50 shareholders in Nederlandse Aardolie Maatschappij B.V. (NAM). An important part of NAM's gas production comes from the onshore Groningen gas field, in which NAM holds a 60% interest. The remaining 40% interest is held by EBN, a Dutch government entity.

Production from the Groningen field induces earthquakes that cause damage to houses and other buildings and structures in the region. This has led to complaints and claims for compensation for damage from the local community. NAM is working with the Dutch government and other stakeholders to fulfil its obligations to the residents of the area, which includes compensation for damage caused by above-mentioned earthquakes.

Since 2013, the Dutch Minister of Economic Affairs and Climate (the Minister) has set an annual production level for the Groningen field taking into account all interests, including safety of the residents, security of supply in the domestic gas market as well as supply commitments in EU member states. Production in the gas year 2017-2018 (ending October 1, 2018) was capped at 21.6 billion cubic metres; actual production in this period was 20.1 billion cubic metres. In March 2018, the Minister announced a government decision to close in the Groningen field as soon as possible, with production expected to end around 2030, as a base scenario.

Apart from production reductions, over the years, a variety of other measures have been taken by NAM, the Minister and the government.

NAM funded and led an in-depth study and data acquisition programme into the earthquakes and its effects. Specific building regulations were issued and, in 2018, an independent government body was set up to handle damage claims by the local community. Starting in November 2018, the Minister has taken over from NAM the duty of care with respect to the strengthening of buildings and the Minister now decides on the scope and prioritisation thereof. NAM will pay the costs associated with these activities. See "Risk Factors" on page 17.

In June 2018, NAM's shareholders and the Dutch government signed a Heads of Agreement (HoA) to reduce production from Groningen and to ensure the financial robustness of NAM to fulfil its obligations. In the HoA, NAM's shareholders have agreed not to declare dividends for 2018 and 2019. In September 2018, detailed agreements were signed to further implement the HoA. As part of these agreements, Shell guarantees the performance by NAM of the NAM's payment obligations vis-à-vis the Dutch government in relation to earthquake-related damages and costs of strengthening, up to a maximum of 30% in the NAM, which equals Shell's indirect interest in the Groningen production system.

The Ministerial production instruction for the Groningen gas field for the gas year 2018/2019 is to produce a volume of 19.4 billion cubic meters, based on a year with an average temperature profile. This instruction and the associated amendments in the Mining Act in effect constitute for NAM a legal obligation to produce.

NAM also has a 60% interest in the Schoonebeek oil field and operates 25 other hydrocarbon production licences onshore and offshore in the North Sea.

### Norway

We are a partner in 32 production licences on the Norwegian continental shelf. We are the operator in 13 of these, of which three are producing: the Gaupe field (Shell interest 60%), the Knarr field (Shell interest 45%), and the Ormen Lange gas field (Shell interest 17.8%). We have interests in the producing fields Troll, Kvitebjørn, Sindre and Valemon, where we are not the operator.

### UK

We operate a significant number of our interests on the UK continental shelf under a 50:50 joint venture agreement with ExxonMobil. In addition to our oil and gas production from North Sea fields, we have various interests in the Atlantic Margin area where we are not the operator, principally in the West of Shetland area (Clair, Shell interest 28%, and Schiehallion, Shell interest approximately 45%).

In January 2018, we announced the FID for the redevelopment of the Penguins oil and gas field (Shell interest 50%) in the UK North Sea. Also, in 2018, we announced FIDs for development of our operated oil and gas fields – Fram (Shell interest 32%), Arran (Shell interest 44.6%) and Gannet E (Shell interest 50%) along with the Gannet Export infrastructure investment in the central North Sea and the Shearwater gas infrastructure hub; and a non-operated Alligin oil field West of Shetland (Shell interest 50%).

In May 2018, we acquired a 22.5% non-operated stake in the P1830 licence and a 30% stake in the P1028 and P1189 licences. P1189 includes the Cambo discovery north-west of Shetland and in August 2018 the successful conclusion

of well-testing operations on the appraisal well in the Cambo field was confirmed.

In September 2018, we sold our interest in the Triton cluster, which comprises the central UK North Sea assets: Bittern (Shell interest 39.6%), Triton FPSO (Shell interest 26.4%), Gannet E (Shell interest 50%) and Belinda/Evelyn (Shell interest 100%).

In November 2018, we announced the start-up of the second phase of the Clair field, with an expected peak production of 106 thousand boe/d (Shell interest 28%).

### Rest of Europe

We also have interests in Albania, Bulgaria, Germany and Greenland.

## ASIA (INCLUDING THE MIDDLE EAST AND RUSSIA)

### Brunei

Shell and the Brunei government are 50:50 shareholders in Brunei Shell Petroleum Company Sendirian Berhad (BSP). BSP has long-term oil and gas concession rights onshore and offshore Brunei, and sells most of its gas production to Brunei LNG Sendirian Berhad (see "Integrated Gas" on page 31), with the remainder (12% in 2018) sold in the domestic market.

In addition to our interest in BSP, we are the operator of the Block A concession (Shell interest 53.9%), which is under exploration and development. We have a 35% non-operating interest in the Block B concession, where gas and condensate are produced from the Maharaja Lela field.

We also have non-operating interests in deep-water exploration Block CA-2 (Shell interest 12.5%) and in exploration Block N (Shell interest 50%), both under PSCs.

### Iran

Shell transactions with Iran are disclosed separately. See "Section 13(r) of the US Securities Exchange Act of 1934 Disclosure" on page 262.

### Iraq

We have a 44% interest in the Basrah Gas Company, which gathers, treats and processes associated gas that was previously being flared from the Rumaila, West Qurna 1 and Zubair fields. The processed gas and associated products, such as condensate and LPG, are sold to the domestic market and surplus condensate and LPG are exported. In 2018, Basrah Gas processed on average around 800 million scf/d of associated gas into dry gas, condensate and LPG.

In January 2019, we announced the FID for the Basrah Gas Company Natural Gas Liquids expansion project that will increase the capacity to 1.4 billion scf/d (Shell interest 44%).

In March 2018, we sold our 19.6% interest in the West Qurna 1 field. In June 2018, we handed over operations of the Majnoon field to the Iraqi government.

### Kazakhstan

We are the joint operator of the onshore Karachaganak oil and condensate field (Shell interest 29.3%), where we have a licence to the end of 2037. Karachaganak produced around 399 thousand boe/d, on a 100% basis, in 2018.

We have a 16.8% interest in the North Caspian Sea Production Sharing Agreement which includes the Kashagan field in the Kazakh sector of the Caspian Sea. The North Caspian Operating Company is the operator. This shallow-water field covers an area of approximately 3,400 square kilometres. Phase 1 development of the field is expected to lead to plateau oil production capacity of about 370 thousand b/d by 2019, on a 100% basis, with the possibility of increases with additional phases of development. Production started in 2016.

We also have an interest of 55% in the Pearls PSC in the Kazakh sector of the Caspian Sea. It includes two oil fields, Auezov and Khazar, and covers an area of around 520 square kilometres.

We also have a 7.4% interest in Caspian Pipeline Consortium, which owns and operates an oil pipeline running from the Caspian Sea to the Black Sea across parts of Kazakhstan and Russia.

In 2018, we took the FID for the development of the Karachaganak Gas Debottlenecking project (Shell interest 29.3%).

### Malaysia

We explore for and produce oil and gas offshore Sabah and Sarawak under 17 PSCs, in which our interests range from 20% to 85%.

Offshore Sabah, we operate two producing oil fields (Shell interests ranging from 29% to 35%). These include the Gumusut-Kakap deep-water field (Shell interest 29%), where production is via a dedicated floating production system, and the Malikai deep-water field (Shell interest 35%). We also have a 21% interest in the Siakap North-Petai deep-water field and a 30% interest in the Kebabangan field, both operated by third parties. In March 2018, we completed the sale of our 50% interest in the 2011 North Sabah EOR PSC. Additionally, we have exploration interests in Blocks SB-J, SB-G, SB-N, SB-3G, ND-6 and ND-7 PSCs.

Offshore Sarawak, we are the operator of 10 producing gas fields (Shell interests ranging from 37.5% to 50%). The M3S field (Shell interest 70%), F23SW field (Shell interest 50%) and Serai field (Shell interest 37.5%) reached the end of life. F23SW was abandoned successfully in 2018, while the abandonment for M3S will be completed in 2019 and Serai abandonment will be completed between 2019 and 2020. Nearly all the gas produced offshore Sarawak is supplied to Malaysia LNG (we divested our remaining 15% interest in June 2018) and to our gas-to-liquids plant in Bintulu. See "Integrated Gas" on page 31.

In 2018, we took the FID for the development of Gorek, Larak and Bakong gas fields in Block SK408 offshore Sarawak (Shell interest 30%) and the development of Pegaga gas field in Block SK320 offshore Sarawak (Shell interest 20%).

We also have a 40% interest in the 2011 Baram Delta EOR PSC and a 50% interest in Block SK-307, and interests in exploration Blocks SK318, SK320, SK408 and SK319 (operational extension application submitted to the regulator).

### Oman

We have a 34% interest in Petroleum Development Oman (PDO); the Omani government has a 60% interest. PDO is the operator of more than 160 oil fields, mainly located in central and southern Oman, over an area of 76,152 square kilometres. The concession expires in 2044.

In April 2018, we sold our 17% interest in the Mukhaizna oil field.

### **United Arab Emirates**

In Abu Dhabi, we have a 15% interest in the licence of ADNOC Gas Processing, which expires in 2028. ADNOC Gas Processing exports propane, butane and heavier-liquid hydrocarbons, which it extracts from the wet gas associated with the oil produced by ADNOC Onshore.

### **Rest of Asia**

We also have interests in Jordan, Kuwait, the Philippines and Turkey.

## **AFRICA**

### **Egypt**

We have a 50% interest in the Badr Petroleum Company (BAPETCO), a self-operated joint venture between Shell and the Egyptian General Petroleum Corporation (EGPC). BAPETCO onshore operations are in the Western Desert where we have an interest in nine oil and gas producing development leases, as well as four exploration concessions (North East Obaiyed, North Matruh, North East El Shawish and North Umbaraka).

We have interests in two gas-producing areas offshore the Nile Delta. We have a 40% interest in the Rashid Petroleum Company, a self-operated joint venture between Shell, EGPC and Edison, which operates the Rosetta concession (Shell interest 80%).

We also have a 25% interest in the Burullus Gas Company (Burullus), a self-operated joint venture between Shell, EGPC and PETRONAS. Burullus operates the West Delta Deep Marine concession (Shell interest 50%), which supplies gas to both the domestic market and the Egyptian LNG plant (see "Integrated Gas" on page 32).

We also have a 60% interest in the development rights over the Harmattan Deep discovery and in the Notus discovery offshore the Nile Delta.

In April 2018, we approved the FID for the development of Phase 9B of the WDDM offshore concession (Shell interest 50%).

### **Nigeria**

Our share of production, onshore and offshore, in Nigeria was 255 thousand boe/d in 2018, compared with 266 thousand boe/d in 2017. Security issues, sabotage and crude oil theft in the Niger Delta continued to be significant challenges in 2018.

### **Onshore**

The Shell Petroleum Development Company of Nigeria Limited (SPDC) is the operator of a joint venture (Shell interest 30%) that has 17 Niger Delta onshore oil mining leases (OML). The 20-year renewals of 16 oil mining leases (OMLs): 17, 20, 21, 22, 23, 25, 27, 28, 31, 32, 33, 35, 36, 43, 45 and 46 were achieved in December 2018. These OMLs expire in October 2038. To provide funding, alternative funding arrangements, including with commercial banks, are in place for certain key projects.

SPDC supplies gas to Nigeria LNG Ltd (see "Integrated Gas" on page 32) mainly through its Gbaran-Ubie and Soku projects.

In 2018, we took the FIDs on Assa North, Gbaran Enwhe and Gbaran Nodal Compression projects (Shell interest 30%).

Also in 2018, we announced a notable nearfield exploration gas discovery in the greater Gbaran area, onshore Niger Delta. It was discovered in the Epu Field block OML 28, located beneath the producing Epu Field in the Central Swamp of the Niger Delta (Shell interest 30%).

### **Offshore**

Our main offshore deep-water activities are carried out by Shell Nigeria Exploration and Production Company Limited (SNEPCO, Shell interest 100%), which has interests in four deep-water blocks, under PSC terms, in which production is via two FPSOs - Bonga and Erha. SNEPCO operates OMLs 118 (including the Bonga field FPSO, Shell interest 55%) and 135 (Bolia and Doro, Shell interest 55%) and has a 43.8% non-operating interest in OML 133 (including the Erha FPSO) and a 50% non-operating interest in oil prospecting licence (OPL) 245 (Zabazaba, Etan).

We have two non-producing offshore interests OPL 284 (Shell interest 45%) and OPL 286 (Shell interest 66% as operator).

Authorities in various countries are investigating our investment in Nigerian oil block OPL 245 and the 2011 settlement of litigation pertaining to that block. See Note 25 to the "Consolidated Financial Statements" on pages 211-213.

SNEPCO also has an approximate 43% interest in the Bonga South West/Aparo development via its 55% interest in OML 118. In February 2019, we agreed the heads of terms for the resolution of the OML 118 negotiations including the PSC dispute with the NNPC, following which we now have a clear commercial framework for a potential Bonga South West Aparo FID and announced an invitation to tender. A timeframe for the FID will be announced after the commercial framework is agreed.

SPDC also has three shallow-water licences (OMLs 74, 77 and 79) and a 40% interest in the non-Shell-operated Sunlink joint venture that has one shallow-water licence (OML 144); all four OMLs expire in 2034.

In our Nigerian operations, we face various risks and adverse conditions which could have a material adverse effect on our operational performance, earnings, cash flows and financial condition (see "Risk factors" on page 17). There are limitations to the extent to which we can mitigate these risks. We carry out regular portfolio assessments to remain a competitive player in Nigeria for the long term. We support the Nigerian government's efforts to improve the efficiency, functionality and domestic benefits of Nigeria's oil and gas industry, and we monitor legislative developments. We monitor the security situation and liaise with host communities, governmental and non-governmental organisations to help promote peace and safe operations. We continue to provide transparency of spills management and reporting, along with our deployment of oil-spill response capability and technology. We execute a maintenance strategy to support sustainable equipment reliability and have implemented a multi-year programme to reduce routine flaring of associated gas. See "Climate change and energy transition" on page 77.

### **Rest of Africa**

We also have interests in Algeria, Mauritania, Namibia and Tunisia.

### NORTH AMERICA

#### Canada

We have approximately 1,400 mineral leases in Canada, mainly in Alberta and British Columbia. We produce and market natural gas, natural gas liquids, synthetic crude oil and bitumen.

#### Shales

We have approximately 1,200 mineral leases with over 1.7 million net mineral acres (2017: 2.6 million revised to 2.1 million). During the year, we relinquished 0.5 million net mineral acres. Our position is primarily in the Duvernay play in Alberta and the Montney play in British Columbia. Activity includes drill-to-fill of our existing infrastructure and an investment focus on our liquid-rich shale acreage.

In 2018, we drilled 70 wells. We have interests in 937 productive wells. We operate four natural gas processing and extraction plants in Alberta and four natural gas processing plants in British Columbia.

With the announcement of the FID for LNG Canada in 2018, our Groundbirch asset is positioned as a possible feedstock to the project.

#### Bitumen and synthetic crude oil

Synthetic crude oil is produced by mining bitumen-saturated sands, extracting the bitumen from the sands and transporting it to a processing facility where hydrogen is added to produce a wide range of feedstocks for refineries. We have a 50% interest in 1745844 Alberta Ltd. (formerly known as Marathon Oil Canada Corporation), which holds a 20% interest in the Athabasca Oil Sands Project.

#### Carbon capture and storage (CCS)

We operate the Quest CCS project (Shell interest 10%), which captured and safely stored more than 1 million tonnes of carbon dioxide in 2018.

#### Offshore

In December 2018, the Sable Offshore Energy project (Shell interest 31.3%) stopped natural gas production off the coast of Nova Scotia, Canada. A multi-year decommissioning and restoration phase has begun. We have also relinquished all our exploration licences off the west coast of British Columbia.

#### USA

We have approximately 25,000 mineral leases in the USA. We produce oil and gas in deep water in the Gulf of Mexico, heavy oil in California and oil and gas from shale in Pennsylvania, Texas and Louisiana. The majority of our oil and gas production interests are acquired under leases granted by the owner of the minerals underlying the relevant acreage, including many leases for federal onshore and offshore tracts. Such leases usually run on an initial fixed term that is automatically extended by the establishment of production for as long as production continues, subject to compliance with the terms of the lease (including, in the case of federal leases, extensive regulations imposed by federal law).

#### Gulf of Mexico

The Gulf of Mexico is our major production area in the USA and accounts for around 54% of our oil and gas production in the country. We have an interest in approximately 264 federal offshore leases and our share of production averaged 299 thousand boe/d in 2018.

In 2018, we announced one of our largest US Gulf of Mexico exploration finds in the past decade from the Whale deep-water well (Shell interest 60%

as operator). It was discovered in the Alaminos Canyon Block 772, adjacent to our Silvertip field and approximately 16 kilometres from the Shell-operated Perdido platform.

We are the operator of seven production hubs – Mars A, Mars B, Auger, Perdido, Ursa, Enchilada/Salsa and Stones – as well as the West Delta 143 Processing Facilities (Shell interests ranging from 38% to 100%). We also have non-operating interests in Nakika (Shell interest 50%) and Caesar Tonga (Shell interest 22.5%).

In 2018, we commenced production from Coulomb phase 2 (Shell interest 100% as operator). Coulomb ties into the Nakika non-operated platform.

In April 2018, we announced the FID to develop the Vito deep-water field. Vito is expected to reach an average peak production of 100 thousand boe/d (Shell interest 63.1%).

We continued with the development of the Appomattox project, with first oil expected in 2019. In May 2018, we announced a large exploration discovery in the Norphlet geologic play from the Dover deep-water well. Dover is operated by us (100%) and is Shell's sixth discovery in the Norphlet. The discovery is located approximately 20 kilometres from the Appomattox platform.

In May 2018, production started from the Kaikias deep-water project. Kaikias (Shell interest 80%) is a subsea tie-back to the Shell-operated Ursa platform. The Kaikias estimated peak production is 40 thousand boe/d.

From November 2017 to July 2018, our production from the Gulf of Mexico was adversely impacted by the shut-in of the Enchilada/Salsa assets (ESA), with subsequent impact on Auger and its associated fields (Llano, Macaroni and Habanero) – all driven by a November 2017 ESA incident involving a third-party owned and operated gas export pipeline. Production for Auger and associated fields resumed in May 2018 and production from ESA resumed in July 2018.

After our acquisition of the Stones FPSO (Shell interest 100%) in January 2018, we shut it down for maintenance in February and resumed production in June.

#### Shales

We have approximately 23,000 mineral leases with nearly 1.3 million net mineral acres. Our activity is focused in the Permian Basin in West Texas and the Marcellus and Utica plays in Pennsylvania. We also have a non-Shell-operated interest in the Haynesville shale gas formation in Northern Louisiana.

In 2018, we drilled 340 wells. We have interests in more than 2,300 productive wells and operate seven central processing facilities. The USA represents 65% of our shales proved reserves and 76% of our shales liquids proved reserves. In the Permian Basin, we nearly doubled our production in 2018, ending the year with an output of around 147 thousand boe/d and have matured an inventory of resources in excess of 1 billion boe that breaks even at less than \$40 per barrel.

In April 2018, we sold approximately 10,500 non-core net mineral acres and associated assets in the Permian Basin.

## **California**

We have a 51.8% interest in Aera Energy LLC which operates approximately 15,000 wells in the San Joaquin Valley in California, mostly producing heavy oil and associated gas.

## **Alaska**

With the exception of two remaining positions in the long-established North Slope area, we have exited all other leases. We retain a non-operating interest of 50% in 13 federal leases, operated by ENI. An exploratory drilling operation for this joint venture was permitted by ENI and is under way. We continue to evaluate our 18 state leases at nearby Western Harrison Bay, which have geologic affinity with recent discoveries announced by other North Slope operators.

## **Rest of North America**

We also have interests in Mexico.

## **SOUTH AMERICA**

### **Argentina**

#### **Shales**

We have more than 162 thousand net mineral acres (2017: 260 thousand revised to 156 thousand) in the Vaca Muerta basin, a liquids and gas-rich play located in the Neuquén Province. The operated acreage includes blocks in Cruz de Lorena and Sierras Blancas (Shell interest 90%), Coiron Amargo Sur Oeste (Shell interest 80%), and Bajada de Añelo (Shell interest 50%). We have a 45% non-Shell-operated interest in the Rincón La Ceniza and La Escalonada blocks. We have interests in 36 producing wells and drilled seven wells in 2018 in our operated acreage. We have a 90% interest in our operated Sierras Blancas/Cruz de Lorena central processing facility. In December 2018, we announced the start of the development phase of three blocks in the Vaca Muerta basin (Cruz de Lorena, Sierras Blancas and Coiron Amargo Sur Oeste).

### **Brazil**

We operate several producing fields in the Campos Basin, offshore Brazil. They consist of the Bijupirá and Salema fields (Shell interest 80%) and the BC-10 field (Shell interest 50%). Our operated portfolio also includes the Gato do Mato field in the Santos Basin and the adjacent Sul de Gato do Mato area (Shell interest 80%), for which development options are being evaluated. Additionally, in the operated portfolio, in the Santos Basin, we have 10 offshore exploration concessions in the Barreirinhas Basin (Shell interests ranging from 50% to 100%) and a pre-salt PSC for Alto Cabo Frio Oeste (Shell interest 55% as operator).

In March 2018, during the fifteenth deep-water bid round organised by the Brazilian National Petroleum Agency (ANP), we secured two exploration blocks as operator, one in the Potiguar Basin (Shell Interest 100%) and one in the Campos Basin (Shell Interest 40%). In September 2018, we added the Saturno block in the fifth pre-salt bid round (Shell interest 50%), in the Santos Basin.

In our non-operated portfolio, in the Santos Basin, we have a 30% interest in the BM-S-9, Entorno de Sapinhoá and BM-S-9A blocks with the Sapinhoá and Lapa fields, as well as 25% interests in the BM-S-11 and BM-S-11A concessions with the Lula (including Iracema area), Berbigão, Sururu and Atapú fields, which are accumulations subject to ongoing unitisation agreements. Lula unitisation impact (Shell interest of 23%, compared to 25% applicable until the unitisation effective date) was recognised in September

2018, as negotiations are in an advanced stage, with a subsequent cash settlement related to pre-unitisation costs and production expected during 2019. The Sapinhoá unitisation (combined Shell interest unaltered at 30%, being 1.1% held through the Entorno de Sapinhoá PSC and 28.9% via the BM-S-9 concession contract) has been in effect since November 2018 and the first tranche of cash settlement occurred in December 2018. Also, in the Santos Basin, we hold a 20% non-operator interest in BM-S-50 offshore exploration block, where the Sagitário prospect was discovered. In addition, we hold a 20% non-operator interest in the Libra block, where commerciality of Mero I was declared, well tests were initiated and where exploration is ongoing. The Libra field is also subject to unitisation with adjoining areas, for which a unitisation agreement is still subject to government approval.

In March 2018, during the fifteenth deep-water bid round, we won two additional, non-operated, deep-water exploration blocks in the Potiguar Basin (Shell interest 40%) and in June 2018, we won a PSC to explore the Tres Marias block at the fourth pre-salt bid round held by the ANP (Shell interest 40%).

The activities of operated and non-operated fields are currently supported by 15 producing deep-water FPSOs, of which the fourteenth (P69) delivered first oil in October 2018 and fifteenth (P67) in February 2019. Ramp up to full production capacity is expected during 2019. Two additional FPSOs are expected to be brought online over the period 2019-2020 (Berbigão (P68) and Atapu I (P70)).

### **Rest of South America**

We also have interests in Colombia and Uruguay.

## **TRADING AND SUPPLY**

We market and trade crude oil from most of our Upstream operations.

# Oil and gas information

## Proved developed and undeveloped reserves of Shell subsidiaries and Shell share of joint ventures and associates

	Crude oil and natural gas liquids (million barrels)	Natural gas (thousand million scf)	Synthetic crude oil (million barrels)	Bitumen (million barrels)	Total (million boe)[A]
Shell subsidiaries					
Increase/(decrease) in 2018:					
Revisions and reclassifications	489	2,766	32	–	997
Improved recovery	41	7	–	–	42
Extensions and discoveries	329	836	–	–	474
Purchases and sales of minerals in place	(73)	(599)	–	–	(175)
Total before taking production into account	786	3,011	32	–	1,337
Production [B]	(600)	(3,487)	(20)	–	(1,222)
Total	186	(476)	12	–	117
At January 1, 2018	4,300	30,324	649	–	10,177
At December 31, 2018	4,486	29,847	661	–	10,294
Shell share of joint ventures and associates					
Increase/(decrease) in 2018:					
Revisions and reclassifications	(4)	(3,566)	–	–	(617)
Improved recovery	–	–	–	–	0
Extensions and discoveries	18	5	–	–	19
Purchases and sales of minerals in place	–	(37)	–	–	(6)
Total before taking production into account	16	(3,598)	–	–	(604)
Production [C]	(38)	(743)	–	–	(166)
Total	(23)	(4,341)	–	–	(771)
At January 1, 2018	313	10,108	–	–	2,056
At December 31, 2018 [D]	290	5,768	–	–	1,285
Total					
Increase/(decrease) before taking production into account	802	(587)	32	–	733
Production	(639)	(4,230)	(20)	–	(1,388)
Increase/(decrease)	163	(4,817)	12	–	(655)
At January 1, 2018	4,613	40,432	649	–	12,233
At December 31, 2018	4,776	35,615	661	–	11,578
Reserves attributable to non-controlling interest in					
Shell subsidiaries at December 31, 2018	–	–	331	–	331

[A] Natural gas volumes are converted into oil equivalent using a factor of 5,800 standard cubic feet (scf) per barrel.

[B] Included 43 million barrels of oil equivalent (boe) consumed in operations (natural gas: 245 thousand million scf; synthetic crude oil: 1 million barrels).

[C] Included 7 million boe consumed in operations (natural gas: 41 thousand million scf).

[D] Includes 110 million boe related to our 36.8 % interest in the Danish Underground Consortium in Denmark. In October 2018, we announced the sale of this interest. The transaction is expected to be completed in 2019, subject to partner and regulatory approvals.

## PROVED RESERVES

The proved oil and gas reserves of Shell subsidiaries and the Shell share of the proved oil and gas reserves of joint ventures and associates are set out in more detail in "Supplementary information – oil and gas (unaudited)" on pages 215-226.

Before taking production into account, our proved reserves increased by 733 million boe in 2018. This comprised of increases of 1,337 million boe from Shell subsidiaries and of decreases of 604 million boe from the Shell share of joint ventures and associates.

After taking production into account, our proved reserves decreased by 655 million boe in 2018 to 11,578 million boe at December 31, 2018.

## SHELL SUBSIDIARIES

Before taking production into account, Shell subsidiaries' proved reserves increased by 1,337 million boe in 2018. This comprised of increases of 786 million barrels of oil and natural gas liquids, 519 million boe (3,011 thousand million scf) of natural gas and 32 million barrels of synthetic crude oil. The 1,337 million boe increase is the net effect of a net increase of 997 million boe from revisions and reclassifications, an increase of 42 million boe from improved recovery, an increase of 474 million boe from extensions and discoveries, and a net decrease of 175 million boe related to purchases and sales of minerals in place.

After taking into account production of 1,222 million boe (of which 43 million boe were consumed in operations), Shell subsidiaries' proved reserves increased by 117 million boe in 2018 to 10,294 million boe. In 2018, Shell subsidiaries' proved developed reserves (PD) decreased by 126 million boe to 8,054 million boe, and proved undeveloped reserves (PUD) increased by 242 million boe to 2,239 million boe.

## SHELL SHARE OF JOINT VENTURES AND ASSOCIATES

Before taking production into account, the Shell share of joint ventures and associates' proved reserves decreased by 604 million boe in 2018. This comprised an increase of 16 million barrels of crude oil and natural gas liquids and a decrease of 620 million boe (3,598 thousand million scf) of natural gas. The 604 million boe decrease comprises a net decrease of 617 million boe from revisions and reclassifications and an increase of 19 million boe from extensions and discoveries and a net decrease of 6 million boe related to purchases and sales.

After taking into account production of 166 million boe (of which 7 million boe were consumed in operations), the Shell share of joint ventures and associates' proved reserves decreased by 771 million boe to 1,285 million boe at December 31, 2018.

In 2018, the Shell share of joint ventures and associates' PD decreased by 738 million boe to 1,138 million boe and PUD decreased by 34 million boe to 146 million boe.

## PROVED UNDEVELOPED RESERVES

In 2018, Shell subsidiaries and the Shell share of joint ventures and associates' PUD increased by 208 million boe to 2,385 million boe. There were decreases of 702 million boe due to maturation to PD, mainly 218 million boe in Prelude (Australia), 86 million boe in Kolo Creek (Nigeria), and 398 million boe spread across other fields. These were offset by increases of 392 million boe due to revisions and net increases of 493 million boe due to extensions and discoveries – mainly in the Permian Basin (106 million boe), Vito (105 million boe) and Mero (85 million boe) – and decreases of 18 million boe due to sales of minerals in place and increases of 43 million boe due to improved recovery spread across other fields.

In addition to the maturation of 702 million boe from PUD to PD, 169 million boe was matured to PD from contingent resources through PUD as a result of project execution during the year.

PUD held for five years or more (PUD5+) at December 31, 2018, amounted to 272 million boe, a decrease of 280 million boe compared with the end of 2017. These PUD5+ remain undeveloped because development either

requires the installation of compression equipment and the drilling of additional wells, which will be executed when required to support existing gas delivery commitments (Russia), or will take longer than five years because of the complexity and scale of the project (Australia and the UK). The decrease in PUD5+ during 2018 was driven mainly by changes in Prelude (Australia), Kolo Creek (Nigeria), Tempa Rossa (Italy), and Kashagan (Kazakhstan).

The fields with the largest PUD5+ at December 31, 2018, were Jansz-Lo and Gorgon (Australia), Luskoje (Russia), Clair (UK) and Forcados-Yoki (Nigeria).

During 2018, we spent \$9 billion on development activities related to PUD maturation.

## DELIVERY COMMITMENTS

We sell crude oil and natural gas from our producing operations under a variety of contractual obligations. Most contracts generally commit us to sell quantities based on production from specified properties, although some natural gas sales contracts specify delivery of fixed and determinable quantities, as discussed below.

In the past three years, we met our contractual delivery commitments, with the notable exceptions of Malaysia, Egypt and Trinidad and Tobago. In the period 2019-2021, we are contractually committed to deliver to third parties, joint ventures and associates a total of approximately 7,700 billion scf of natural gas from our subsidiaries, joint ventures and associates. The sales contracts contain a mixture of fixed and variable pricing formulae that are generally referenced to the prevailing market price for crude oil, natural gas or other petroleum products at the time of delivery.

In the period 2019-2021, we expect to meet our delivery commitments for almost all the areas in which they are carried, with an estimated 73% coming from PD, 5% through the delivery of gas that comes available to us from paying royalties in cash, and 22% from the development of PUD as well as other new projects and purchases.

The key exceptions are:

- Egypt (with a shortfall of 750 billion scf of natural gas), where the diversion of gas from the offshore West Delta Deep Marine fields to domestic use is expected to continue in the near future, leaving our commitment to deliver liquefied natural gas under force majeure; and
- Trinidad and Tobago, where PD for most fields fail the economic test at the yearly average price for natural gas. However, we expect to cover 85% of our delivery commitments from existing developed resource volumes, resulting in an expected true shortfall of some 95 billion scf; and
- In Malaysia, one of the third-party gas supply lines was under repair during 2018, with completion expected in the third quarter of 2019. We expect a contractual shortfall of 35 billion scf in 2019. Force majeure has been declared, and no penalties have been incurred.

## **Oil and gas information** Continued

### **Summary of proved oil and gas reserves of Shell subsidiaries and Shell share of joint ventures and associates**

(at December 31, 2018)

	Crude oil and natural gas liquids (million barrels)	Natural gas (thousand million scf)	Synthetic crude oil (million barrels)	Based on average prices for 2018 Total (million boe)[A]
<b>Proved developed</b>				
Europe	252	3,794	–	906
Asia	1,568	14,032	–	3,988
Oceania	108	5,844	–	1,116
Africa	335	1,573	–	606
North America				
USA	629	1,706	–	923
Canada	21	721	661	807
South America	633	1,238	–	847
Total proved developed	3,546	28,908	661	9,193
<b>Proved undeveloped</b>				
Europe	125	969	–	292
Asia	215	1,180	–	419
Oceania	21	2,607	–	470
Africa	85	971	–	252
North America				
USA	388	441	–	464
Canada	2	268	–	48
South America	394	271	–	440
Total proved undeveloped	1,230	6,707	–	2,385
<b>Total proved developed and undeveloped</b>				
Europe	377	4,763	–	1,198
Asia	1,783	15,212	–	4,406
Oceania	129	8,451	–	1,586
Africa	420	2,544	–	858
North America				
USA	1,017	2,147	–	1,387
Canada	23	989	661	855
South America	1,027	1,509	–	1,288
Total	4,776	35,615	661	11,578
Reserves attributable to non-controlling interest in Shell subsidiaries	–	–	331	331

[A] Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

## **EXPLORATION**

In 2018, we made notable discoveries in the US Gulf of Mexico and Nigeria. In January 2018, we announced one of our largest US Gulf of Mexico exploration finds in the past decade from the Whale deep-water well (Shell interest 60% as operator). Other notable discoveries include Epu Deep (Shell interest 30%), a near-field gas discovery in the greater Gbaran area in the Niger Delta of Nigeria, and Dover, a large discovery in the Norphlet geological play in the US Gulf of Mexico (Shell Interest 100% as operator). Discoveries are being evaluated further in order to establish the extent of commercially producible volumes.

We continue to strengthen our portfolio in Brazil, Mauritania, Mexico and the UK. In Brazil, we signed 35-year PSCs for the Saturno (Shell Interest 50% as operator) and Tres Marias (Shell Interest 40%) deep-water exploration blocks in the Santos Basin. We also won four Brazilian deep-water blocks in the Campos and Potiguar basin, we secured one exploration block on our own (Shell interest 100%), and three in joint bids (Shell interest 40%). Of the newly acquired blocks, we will operate two.

In January 2018, we won nine exploration blocks in the deep-water bid round in Mexico; four blocks on our own (Shell interest 100%), four with our partner Qatar Petroleum International Limited (Shell interest 60%), and one with our partner Pemex Exploración y Producción (Shell interest 50%). The total area of these nine blocks is 18,996 square kilometres. We will be the operator of all nine blocks.

In May 2018, in the UK, we acquired a 22.5% non-operated interest in the P1830 licence and a 30% interest in the P1028 and P1189 licences. P1189 includes the Cambo discovery north-west of Shetland and the successful conclusion of well-testing operations on the appraisal well in the Cambo field was confirmed in August 2018.

Additionally, in July 2018, we signed two PSCs with the government of Mauritania for the exploration and potential future production of hydrocarbons in the offshore blocks C-10 and C-19 (Shell Interest 90% as operator). The blocks are located in the West African Atlantic Margin exploration basin with a total area of approximately 23,675 square kilometres.

In 2018, we participated in 50 productive exploratory wells (excluding Shales) with proved reserves allocated (Shell share: 22 wells). In total, the net undeveloped acreage in our exploration portfolio decreased by around 11 million acres in 2018. The largest contributions were relinquishments and divestments in Canada, Kenya, New Zealand, Indonesia and Namibia, offset by new licence entries in Brazil, Mauritania, Mexico, and the UK.

In addition, we participated in 234 Shales productive exploratory wells with proved reserves allocated (Shell share: 118 wells).

For further information, see 'Supplementary Information – oil and gas (unaudited)' on page 235.

## **Oil and gas information** Continued

### **LOCATION OF OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES**

**Location of oil and gas exploration and production activities** [A] (at December 31, 2018)

	Exploration	Development and/or production	Shell operator[B]
Europe			
Albania	■		■
Bulgaria	■		■
Cyprus		■	
Denmark		■	
Germany	■	■	
Greenland	■		
Italy	■	■	
Netherlands	■	■	
Norway	■	■	
UK	■	■	
Asia			
Brunei	■	■	■
China		■	■
India		■	■
Indonesia		■	■
Jordan	■		■
Kazakhstan	■	■	
Malaysia	■	■	■
Myanmar	■		■
Oman	■	■	
Philippines	■	■	
Qatar		■	■
Russia	■	■	
Turkey	■		■
Oceania			
Australia	■	■	■
Africa			
Algeria	■		■
Egypt	■	■	■
Gabon	■		■
Mauritania	■		■
Morocco	■		■
Namibia	■		■
Nigeria	■	■	■
Tanzania	■	■	■
Tunisia		■	■
North America			
Canada	■	■	■
Mexico	■	■	■
USA	■	■	■
South America			
Argentina	■	■	■
Bolivia	■	■	■
Brazil	■	■	■
Colombia	■		■
Trinidad and Tobago	■	■	■
Uruguay	■		■

[A] Includes joint ventures and associates. Where a joint venture or an associate has properties outside its base country, those properties are not shown in this table.

[B] In several countries where "Shell operator" is indicated, Shell is the operator of some but not all exploration and/or production ventures.

## OIL AND GAS PRODUCTION AVAILABLE FOR SALE

Crude oil and natural gas liquids [A]		Thousand barrels			
		2018	2017	2016	
		Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates
Europe					
Denmark		13,036	—	15,467	—
Italy		10,921	—	8,733	—
Norway		13,528	—	19,529	—
UK		31,431	—	45,020	—
Other [B]		795	1,417	860	1,272
Total Europe		69,711	1,417	89,609	1,272
Asia					
Brunei		283	18,738	1,138	15,831
Kazakhstan		32,432	—	29,491	—
Malaysia		24,650	—	26,574	—
Oman		76,847	—	77,687	—
Russia		22,003	10,403	22,049	10,899
Other [B]		28,769	7,768	30,180	7,859
Total Asia		184,984	36,909	187,119	34,589
Total Oceania [B]		8,883	—	9,098	—
Africa					
Gabon		—	—	9,750	—
Nigeria		53,102	—	56,337	—
Other [B]		8,265	—	9,003	—
Total Africa		61,367	—	75,090	—
North America					
USA		140,035	—	109,430	—
Canada		13,111	—	10,775	—
Total North America		153,146	—	120,205	—
South America					
Brazil		118,681	—	111,093	—
Other [B]		3,414	—	3,325	—
Total South America		122,095	—	114,418	—
Total		600,186	38,326	595,539	35,861

[A] Reflects 100% of production of subsidiaries except in respect of production-sharing contracts [PSCs], where the figures shown represent the entitlement of the subsidiaries concerned under those contracts.  
[B] Comprises countries where 2018 production was lower than 7,300 thousand barrels or where specific disclosures are prohibited.

Synthetic crude oil		Thousand barrels		
		2018	2017	2016
		Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada		19,514	33,183	53,603

Bitumen		Thousand barrels		
		2018	2017	2016
		Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada		—	1,681	4,606

## Oil and gas information Continued

					Million standard cubic feet	
	2018		2017		2016	
	Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates
Europe						
Denmark	45,027	—	52,105	—	47,143	—
Germany	40,368	—	48,002	—	51,483	—
Ireland	44,833	—	52,515	—	44,660	—
Netherlands	—	271,303	—	343,126	—	402,759
Norway	239,253	—	243,352	—	242,736	—
UK	82,695	—	174,478	—	190,185	—
Other [B]	16,422	—	13,125	—	10,076	—
Total Europe	468,598	271,303	583,577	343,126	586,283	402,759
Asia						
Brunei	21,205	157,476	29,880	158,877	26,918	155,881
China	42,419	—	43,899	—	43,699	—
Kazakhstan	78,575	—	80,623	—	77,122	—
Malaysia	237,102	—	221,590	—	221,661	—
Philippines	44,017	—	42,958	—	45,070	—
Russia	4,044	136,652	4,052	137,890	4,141	133,396
Thailand	25,973	—	60,742	—	59,774	—
Other [B]	378,785	117,976	288,728	118,352	383,763	118,366
Total Asia	832,120	412,104	772,472	415,119	862,148	407,643
Oceania						
Australia	648,735	18,923	591,860	18,708	418,793	36,704
New Zealand	40,153	—	51,943	—	58,239	—
Total Oceania	688,888	18,923	643,803	18,708	477,032	36,704
Africa						
Egypt	148,721	—	122,439	—	145,198	—
Nigeria	232,899	—	236,370	—	184,188	—
Other [B]	30,669	—	36,187	—	34,901	—
Total Africa	412,289	—	394,996	—	364,287	—
North America						
USA	355,075	—	286,529	—	309,298	—
Canada	247,890	—	224,529	—	253,509	—
Total North America	602,965	—	511,058	—	562,807	—
South America						
Bolivia	55,480	—	59,673	—	67,191	—
Brazil	68,865	—	70,100	—	31,020	—
Trinidad and Tobago	104,454	—	73,000	—	78,433	—
Other [B]	8,062	—	8,370	—	7,960	—
Total South America	236,861	—	211,143	—	184,604	—
Total	3,241,721	702,330	3,117,049	776,953	3,037,161	847,106

[A] Reflects 100% of production of subsidiaries except in respect of PSCs, where the figures shown represent the entitlement of the subsidiaries concerned under those contracts.

[B] Comprises countries where 2018 production was lower than 41,795 million scf or where specific disclosures are prohibited.

## AVERAGE REALISED PRICE BY GEOGRAPHICAL AREA

### Crude oil and natural gas liquids

					\$/barrel
		2018		2017	2016
		Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates
Europe		68.23	64.24	50.52	46.88
Asia		64.06	70.66	49.08	53.44
Oceania		61.63	—	45.64	—
Africa		71.02	—	53.39	—
North America - USA		61.87	—	47.23	—
North America - Canada		43.72	—	36.00	—
South America		62.67	—	48.10	—
Total		63.96	70.43	49.00	53.23
				38.60	43.58

[A] Included Shell's 14% share of Woodside Petroleum Limited (Woodside) from January 2016 to April 2016. Woodside is a publicly listed company on the Australian Securities Exchange for which we have limited access to data; accordingly, the numbers are estimated. The accounting classification of Woodside was changed from an associate to an investment in securities in April 2016.

### Synthetic crude oil

		\$/barrel		
		2018	2017	2016
		Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada		48.90	45.90	37.61

### Bitumen

		\$/barrel		
		2018	2017	2016
		Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada		—	34.46	25.74

### Natural gas

				\$/thousand scf		
			2018	2017	2016	
			Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates
Europe		7.12	4.06	5.48	4.77	
Asia		2.99	7.06	2.84	5.45	
Oceania		8.95	4.15	6.21	3.11	
Africa		3.02	—	2.44	—	
North America - USA		3.12	—	3.00	—	
North America - Canada		1.35	—	1.85	—	
South America		3.50	—	2.93 [A]	—	
Total		4.64	5.74	3.90 [A]	5.11	
				3.16	4.41	

[A] As revised, following a reassessment.

[B] Included Shell's 14% share of Woodside from January 2016 to April 2016. Woodside is a publicly listed company on the Australian Securities Exchange for which we have limited access to data; accordingly, the numbers are estimated. The accounting classification of Woodside was changed from an associate to an investment in securities in April 2016.

## **Oil and gas information** Continued

### **AVERAGE PRODUCTION COST BY GEOGRAPHICAL AREA**

	<b>Crude oil, natural gas liquids and natural gas [A]</b>			\$/boe		
	2018		2017		2016	
	Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates	Shell subsidiaries	Shell share of joint ventures and associates
Europe	15.03	6.37	13.19	5.58	13.70	5.45 [B]
Asia	6.52	6.24	7.71	6.87	6.32	6.62
Oceania	8.41	32.18	9.24	28.83	8.87	16.19 [C]
Africa	8.25	—	9.53	—	9.93	—
North America - USA	12.78	—	16.11	—	21.44	—
North America - Canada	11.58	—	14.53	—	13.59	—
South America	8.60	—	8.08	—	7.64	—
Total	9.66	6.81	10.55	6.82	10.92	6.57 [B]

[A] Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

[B] As revised following a reassessment.

[C] Included Shell's 14% share of Woodside from January 2016 to April 2016. Woodside is a publicly listed company on the Australian Securities Exchange for which we have limited access to data; accordingly, the numbers are estimated. The accounting classification of Woodside was changed from an associate to an investment in securities in April 2016.

	<b>Synthetic crude oil</b>			\$/barrel		
	2018		2017		2016	
	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada	20.15	—	23.77	—	26.14	—

	<b>Bitumen</b>			\$/barrel		
	2018		2017		2016	
	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries	Shell subsidiaries
North America - Canada	—	—	—	16.19	—	14.19

# Downstream

Key statistics	\$ million, except where indicated		
	2018	2017	2016
Segment earnings [A]	7,601	8,258	6,588
Including:			
Revenue (including inter-segment sales)	340,038	268,979	203,550
Share of profit of joint ventures and associates [A]	1,785	1,956	2,244
Interest and other income	345	154	851
Operating expenses [B]	20,743	19,583	19,681
Depreciation, depletion and amortisation	4,064	3,877	3,681
Taxation charge [A]	1,515	1,783	1,008
Capital investment [B]	7,564	6,416	6,057
Divestments [B]	1,718	2,703	2,889
Refinery availability (%) [C]	91	91	90
Chemical plant availability (%) [C]	93	92	90
Refinery processing intake (thousand b/d)	2,648	2,572	2,701
Oil products sales volumes (thousand b/d)	6,783	6,599	6,483
Chemicals sales volumes (thousand tonnes)	17,644	18,239	17,292

[A] See Note 4 to the "Consolidated Financial Statements" on pages 181-184. Segment earnings are presented on a current cost of supplies basis.

[B] See "Non-GAAP measures reconciliations" on pages 263-264.

[C] The basis of calculation differs from that used for the "Refinery and chemical plant availability" measure in "Performance indicators" on page 28, which excludes downtime due to uncontrollable factors and, in 2017, excludes assets which were not part of Shell's operational performance metrics because of portfolio activity (Fredericia and former Motiva sites).

## OVERVIEW

Our Downstream business is made up of a number of different Oil Products and Chemicals activities, part of an integrated value chain, that trades and refines crude oil, and other feedstocks into a range of products which are moved and marketed around the world for domestic, industrial and transport use. The products we sell include gasoline, diesel, heating oil, aviation fuel, marine fuel, biofuel, lubricants, bitumen and sulphur. In addition, we produce and sell petrochemicals for industrial use worldwide.

Our Oil Products activities comprise Refining and Trading, and Marketing, referred to as classes of business. Marketing includes Retail, Lubricants, Business to Business (B2B), Pipelines and Biofuels. Chemicals has major manufacturing plants, located close to refineries, and its own marketing network. In Trading and Supply, we trade crude oil, oil products and petrochemicals, to optimise feedstocks for Refining and Chemicals, to supply our Marketing businesses and third parties, and for our own profit.

## BUSINESS CONDITIONS

Global oil demand grew by 1.2 million barrels per day (b/d), or 1.2%, to 99.2 million b/d, according to the International Energy Agency's (IEA) Oil Market Report published in January 2019 (Oil Market Report). Oil demand growth in 2018 was 0.4 million b/d lower than in 2017.

Industry gross refining margins were lower on average in 2018 than in 2017 in each of the key refining hubs of Europe, Singapore and the USA. Periods of high crude prices led to reductions in oil products demand. Refinery capacity additions, especially in the Middle East and Asia, combined with tempered demand growth have led to generally lower refinery utilisations. Refinery activity continued to be low in Latin America.

Cracker industry margins fell in all three main regions in 2018. Asian naphtha cracker margins fell sharply in the fourth quarter, amid continuing concerns

over the potential impact of US tariffs, while US ethane cracker margins came under pressure from new cracker unit start-ups. Supported by healthy European demand, European naphtha cracker margins decreased the least during 2018.

See "Market overview" on page 23.

## REFINERY AND CHEMICAL PLANT AVAILABILITY

Refinery availability was 91% in 2018, unchanged from 2017.

Chemical plant availability was 93% in 2018, compared with 92% in 2017, benefiting from lower unplanned downtime at three of our sites (Moerdijk, Pernis and Scotford).

## OIL PRODUCTS AND CHEMICALS SALES

Oil products sales volumes increased by 3% in 2018 compared with 2017, reflecting higher trading volumes and, to a lesser extent, higher marketing volumes despite the sale of the Downstream Argentina business to Raízen (volumes reported at 50% Shell share).

Chemical sales volumes decreased by 3% in 2018 compared with 2017, principally due to the divestment of assets in Japan and operational issues, including Rhine water levels affecting supply in Germany and a fire at the plant in Stanlow in the UK.

## EARNINGS 2018-2017

Segment earnings in 2018 of \$7,601 million are presented on a current cost of supplies basis (see "Summary of results" on page 24). Segment earnings on a first-in, first-out basis were \$7,143 million, which were \$458 million lower than on a current cost of supplies basis (2017 first-in, first-out segment earnings were \$964 million higher). See "Non-GAAP measures reconciliations" on page 263.

## Downstream Continued

Segment earnings in 2018 of \$7,601 million were 8% lower than in 2017. Earnings in 2018 included a net gain of \$34 million, compared with a net charge in 2017 of \$824 million, described at the end of this section.

Excluding the impact of these items, earnings in 2018 were \$7,567 million, compared with \$9,082 million in 2017. Refining and Trading accounted for 20% of these 2018 earnings, Marketing for 53% and Chemicals for 27%.

The decrease in Downstream earnings, excluding the net charges, of \$1,515 million (-17%) compared with 2017 was driven by higher operating costs (around \$700 million), adverse foreign exchange effects (around \$530 million), lower base Chemicals margins (around \$370 million), and lower refining margins (around \$150 million), partly offset by higher Marketing margins (around \$360 million). Other impacts were a net charge of around \$120 million. Operating costs were higher due to higher maintenance costs (Chemicals and Refining assets) and higher costs for Marketing growth opportunities. Chemicals margins were impacted by higher feedstock costs globally, higher utility costs and new cracker start-ups in the USA, and operational issues in Europe. Marketing margins benefited from favourable market conditions at the end of the year. The other net negative impacts were mainly portfolio effects.

The decrease in earnings of \$1,515 million analysed by class of business was as follows:

- Refining and Trading earnings were \$949 million lower than in 2017, principally due to higher costs (including impact of a full year of former Motiva site costs) and adverse currency rate exchange effects. Realised refining margins were lower, with weaker margins in all regions except Canada. In the USA, weaker margins were offset by improved operations, particularly at Deer Park following Hurricane Harvey in 2017. Canada saw significant margin improvement due to positive market conditions. Europe suffered a weaker margin environment although boosted by improved operations at our Pernis refinery in the Netherlands. Asia suffered a very low margin environment. Trading earnings were lower than in 2017 from losses due to weaker trading opportunities.
- Marketing earnings were \$20 million lower than in 2017. Weaker Lubricants results were due to higher costs and foreign exchange effects. Raízen earnings were lower due to lower sugar prices. Other negative impacts included the absence of one-off tax gains from 2017 and higher pension costs. Partly offsetting these impacts were improved earnings from our Retail business, benefiting from favourable market conditions at the end of the year. Results from our Retail China ventures fell due to a new tax policy.
- Chemicals earnings were \$546 million lower than in 2017. Results were impacted by higher feedstock costs in the East, higher utility costs and cracker start-ups in the USA and operational issues in Europe (mainly at Stanlow and Rheinland).

Segment earnings in 2018 included a net gain of \$34 million. A number of offsetting items included charges for impairment of \$386 million (mainly expenditure at Bukom and assets at Stanlow), and costs related to restructuring of \$109 million (a number of initiatives across Downstream) more than offset by net gains from fair value accounting of commodity derivatives of \$233 million, gains from disposal of assets \$225 million (mainly our Downstream assets in Argentina and other smaller disposals) and a gain from one-off tax items of \$118 million (mainly corporation tax rate

changes in the Netherlands and the USA). Other net charges of \$47 million included a one-off gain from the Ontario cap-and-trade scheme and onerous contracts related to Stanlow.

Segment earnings in 2017 included a net charge of \$824 million, reflecting impairment charges of \$315 million reported in depreciation (mainly expenditure at Bukom and charges in relation to the Phenol 3 unit at the Chemicals cracker at Deer Park), redundancy and restructuring charges of \$200 million, charges of \$142 million related to US tax reform legislation and a tax rate change in France and other net charges of \$231 million (mainly onerous contract provisions in Refining and Trading and a legal provision in Chemicals). Partly offsetting these impacts were divestment gains of \$39 million (including a \$546 million net charge from the Motiva transaction, mainly related to tax, which were more than offset by gains on the sale of assets in Saudi Arabia, Africa, Australia, Hong Kong and Macau) and a net gain from fair value accounting of commodity derivatives of \$25 million.

### EARNINGS 2017-2016

Segment earnings were presented on a current cost of supplies basis which were \$964 million lower in 2017 than on a first-in, first-out basis (2016: \$1,085 million lower).

Segment earnings in 2017 of \$8,258 million were 25% higher than in 2016. Earnings in 2017 included a net charge of \$824 million described above. Earnings in 2016 included a net charge of \$655 million, reflecting redundancy and restructuring charges of \$523 million, impairments of \$506 million, a net charge from fair value accounting of commodity derivatives of \$373 million and other net charges of \$25 million. These were partly offset by net gains on divestments of \$772 million reported in interest and other income.

Excluding the impact of these items, earnings in 2017 were \$9,082 million, compared with \$7,243 million in 2016. Refining and Trading accounted for 27% of these 2017 earnings, Marketing for 44% and Chemicals for 29%.

The increase in Downstream earnings, excluding the net charges, of \$1,839 million (25%) compared with 2016 was driven by higher realised refining and trading margins (around \$1,230 million), improved chemical margins (around \$870 million), a lower effective tax rate (around \$380 million) and other net negative impacts (around \$640 million). Refining and trading margins were higher in part following the Motiva transaction in May 2017. Chemicals margins were higher from improved operating performance and the lower effective tax rate resulting from one-off impacts and a change in the geographical split of earnings. The other net negative impacts included higher depreciation charges and costs, following the Motiva transaction, and lower marketing margins, impacted by a shortage of feedstock from our Pearl gas-to-liquids (GTL) plant in Qatar to our Lubricants business.

### CAPITAL INVESTMENT

Capital investment was \$7.6 billion in 2018, compared with \$6.4 billion in 2017. Capital investment in Refining was in line with 2017 at \$2.4 billion (including capital investment to our former Motiva assets in both years). Capital investment in Marketing increased by \$0.5 billion to \$2.0 billion (mainly attributable to growth in China, India, Indonesia, Mexico and Russia). In Chemicals, capital investment increased by \$0.7 billion to \$3.2 billion (increase mainly from investment in our new cracker facilities in Pennsylvania).

## DIVESTMENTS

Divestments were \$1.7 billion in 2018, compared with \$2.7 billion in 2017. The principal divestments in 2018 were the sale of Downstream businesses in Argentina to Raízen, the sale of Chemicals assets in Japan and the sale of an interest in Shell Midstream Partners, L.P. in the USA.

## PORTFOLIO AND BUSINESS DEVELOPMENTS

We continued to high-grade our portfolio in 2018, including:

- In Argentina, we completed the sale of our Downstream business to Raízen. The business acquired by Raízen will continue the relationship with Shell through various commercial agreements, including long-term brand licence agreements as well as products supply and offtake contracts.
- In the USA, Shell Midstream Partners, L.P., sold approximately 36 million common units for total gross proceeds of \$980 million.
- In Japan, we sold all our shares in Shell Chemicals Japan Limited to Uyeno; making Uyeno the branded distributor of Shell Chemicals products in Japan.
- In Pakistan we transferred 29% of our shareholding in Pakistan Refinery Limited (PKL) to Pakistan State Oil. We retain a shareholding of 4% in the Karachi Refinery.

We also continued to grow selected parts of our portfolio, including:

- In China, the China National Offshore Oil Corporation (CNOOC) and Shell Nanhai B.V. (Shell) announced the official start-up of the second ethylene cracker at their Nanhai petrochemicals complex in Huizhou, Guangdong Province. The new ethylene cracker increases ethylene capacity at the complex by around 1.2 million tonnes per year, more than doubling the capacity of the complex, and benefits from integration with adjacent CNOOC refineries. The new facility will also include a styrene monomer and propylene oxide (SMPO) plant.
- In the USA, we announced the start of production of the fourth alpha olefins unit at the Geismar chemicals manufacturing site (Shell interest 100%). Start-up operations began in December 2018.

## BUSINESS AND PROPERTY

### REFINING AND TRADING

#### Refining

We have interests in 21 refineries worldwide with the capacity to process a total of 2.8 million barrels of crude oil per day (Shell share). Our refining capacity is 36% in Europe and Africa, 40% in the Americas and 24% in Asia and Oceania.

In 2018, we divested our downstream business in Argentina, including the Buenos Aires Refinery, to Raízen, which is a joint venture between Shell (50%) and Cosan (50%). We also sold about 29% of our shareholding in the Karachi Refinery in Pakistan, retaining a 4% shareholding.

#### Trading and Supply

Through our main trading offices in London, Houston, Singapore, Dubai and Rotterdam, we trade crude oil, natural gas, LNG, electricity, refined products, chemical feedstocks and environmental products. Trading and Supply trades in physical and financial contracts, lease storage and transportation capacities, and manages shipping and wholesale commercial fuel activities globally. This includes supplying feedstocks for our refineries and chemical plants and finished products such as gasoline, diesel and aviation fuel to our Marketing businesses and customers.

Operating in around 30 countries, with more than 140 Shell and joint venture terminals, we believe our supply and distribution infrastructure is well positioned to make deliveries around the world.

Through its Shipping and Maritime business, Trading and Supply has an interest in around 2,000 Shell-associated vessels and other floating facilities on any given day, including managing one of the world's largest fleets of LNG carriers. Shipping and Maritime enables the Shell Trading organisation to deliver safely on its contracts. This includes supplying feedstocks for our refineries and chemical plants and finished products such as gasoline, diesel and aviation fuel to our Marketing businesses and customers.

Shell Wholesale Commercial Fuels provides transport, industrial and heating fuels. Our range of products, from reliable main-grade fuels to premium products, is designed to provide tangible vehicle and business benefits.

## MARKETING

### Retail

There were more than 44,000 Shell-branded retail stations operating in over 75 countries at the end of 2018. We operate different models across these markets, including full ownership of retail stations through to franchise agreements. Every day, more than 30 million customers pass through these sites to buy fuel and convenience items, including beverages and snacks, and services such as car washes.

We have more than 100 years' experience in fuel development. Aided by our innovative partnership with Scuderia Ferrari, we have concentrated on developing fuels with special formulations designed to clean engines and improve performance. We sold such fuels under the Shell V-Power brand in 63 countries as at the end of 2018. In selected markets, we are increasingly offering customers lower-carbon energy solutions including biofuels, electric vehicle charging, hydrogen and various gaseous fuels like LNG.

### Lubricants

Across more than 100 countries, we produce, market and sell technically advanced lubricants for passenger cars, motorcycles, trucks, coaches, and machinery used in the manufacturing, mining, power generation, agriculture and construction sectors.

We also manufacture premium lubricants from natural gas using GTL base oils produced at our Pearl GTL plant in Qatar (see "Integrated Gas" page 31).

We have a global lubricants supply chain with a network of four base oil manufacturing plants, 31 lubricant blending plants, nine grease plants and three GTL base oil storage hubs.

Through our marine activities, we primarily provide lubricants, but also fuels and related technical services, to the shipping and maritime sectors. We supply around 180 grades of lubricants and six types of fuel to vessels worldwide, ranging from large ocean-going tankers to small fishing boats.

### Business to Business

Our Business-to-Business (B2B) activities encompass the sale of fuels and speciality products and services to a broad range of commercial customers.

Shell Aviation supplies fuel at about 900 airport locations and operates across 45 countries (refuelling and lubricants presence).

## Downstream Continued

Shell Bitumen supplies over 1,600 customers across 36 countries and provides enough bitumen to resurface 450 kilometres of road lanes every day. It also invests in technology research and development to create innovative products.

Shell Sulphur Solutions is a business that manages the complete value chain of sulphur, from refining to marketing. The business provides sulphur for industries such as mining and textiles and also develops new products that incorporate sulphur, such as fertilisers.

### Pipelines

Shell Pipeline Company LP (Shell interest 100%) owns and operates 10 tank farms across the USA. It transports more than 1.5 billion barrels of crude oil and refined products a year through about 6,000 kilometres of pipelines in the Gulf of Mexico and five US states. Our various non-Shell-operated ownership interests provide about a further 13,000 pipeline kilometres.

We carry more than 40 types of crude oil and more than 20 grades of gasoline, as well as diesel, aviation fuel, chemicals and ethylene.

Shell Midstream Partners, L.P., a midstream limited partnership, owns, operates, develops and acquires pipelines and other midstream assets in the USA. Its assets consist of interests in entities that own crude oil and refined products pipelines and terminals that serve as key infrastructure to transport onshore and offshore crude oil production to Gulf Coast and Midwest refining markets. It also delivers refined products from those markets to major demand centres. Its assets also include interests in entities that own natural gas and refinery gas pipelines that transport offshore natural gas to market hubs and deliver refinery gas from refineries and plants to chemical sites along the Gulf Coast. Shell controls the general partner.

### Biofuels

Raízen, our joint venture in Brazil (Shell interest 50%), produces ethanol from sugar cane, with an annual production capacity of more than 2 billion litres; exports sugar, with an annual production of about 4.2 million tonnes; and manages a retail network. Raízen opened its first cellulosic ethanol plant at its Costa Pinto mill in Brazil in 2015, which produced almost 15.5 million litres in 2018. When fully operational, the mill is expected to produce around 40 million litres a year of advanced biofuels from sugar-cane residues.

### CHEMICALS

#### Manufacturing

Our plants produce a range of base chemicals, including ethylene, propylene and aromatics, as well as intermediate chemicals such as styrene monomer, propylene oxide, solvents, detergent alcohols, ethylene oxide and ethylene glycol. We have the capacity to produce around 6.5 million tonnes of ethylene a year.

#### Marketing

Each year, we supply about 18 million tonnes of petrochemicals to around 1,000 industrial customers worldwide. Our products are used to make numerous everyday items, from clothing and cars to detergents and bicycle helmets.

## DOWNTREAM BUSINESS ACTIVITIES WITH IRAN, SUDAN AND SYRIA

### IRAN

Shell transactions with Iran are disclosed separately. See "Section 13(r) of the US Securities Exchange Act of 1934 Disclosure" on page 262.

### SUDAN

We ceased all operational activities in Sudan in 2008.

### SYRIA

We ceased supplying polyols, via a Netherlands-based distributor, to private sector customers in Syria in 2018. Polyols are commonly used for the production of foam in mattresses and soft furnishings.

## DOWNTREAM DATA TABLES

The tables below reflect Shell subsidiaries and instances where Shell owns the crude oil or feedstocks processed by a refinery. In addition, the tables include the Buenos Aires refinery on a 50% basis following the sale to Raízen in October 2018 (100% basis up to that date). Other joint ventures and associates are only included where explicitly stated.

Oil products - cost of crude oil processed or consumed [A]	\$/barrel		
	2018	2017	2016
Total	59.94	46.78	34.47

[A] Includes Upstream and Integrated Gas margins on crude oil supplied by Shell subsidiaries, joint ventures and associates.

Crude distillation capacity [A]	Thousand b/calendar day [B]		
	2018	2017	2016
Europe	970	970	973
Asia	704	704	808
Oceania	—	—	—
Africa	82	82	82
Americas	1,157	1,176	1,223
Total	2,913	2,932	3,086

[A] Average operating capacity for the year, excluding mothballed capacity.

[B] Calendar day capacity is the maximum sustainable capacity adjusted for normal unit downtime.

Ethylene capacity [A]	Thousand tonnes/year		
	2018	2017	2016
Europe	1,701	1,702	1,702
Asia	2,529	1,904	2,222
Oceania	—	—	—
Africa	—	—	—
Americas	2,268	2,267	2,235
Total	6,498	5,873	6,159

[A] Includes the Shell share of capacity entitlement (oftake rights) of joint ventures and associates, which may be different from nominal equity interest. Nominal capacity is quoted at December 31.

Oil products - crude oil processed [A]		Thousand b/d		
		2018	2017	2016
Europe		897	892	898
Asia		545	528	563
Oceania		–	–	–
Africa		66	54	68
Americas		1,041	997	1,088
Total		2,549	2,471	2,617

[A] Includes natural gas liquids, share of joint ventures and associates and processing for others.

Refinery processing intake [A]		Thousand b/d		
		2018	2017	2016
Crude oil		2,434	2,364	2,317
Feedstocks		214	208	384
Total		2,648	2,572	2,701
Europe		896	892	896
Asia		543	539	568
Oceania		–	–	–
Africa		66	54	67
Americas		1,143	1,087	1,170
Total		2,648	2,572	2,701

[A] Includes crude oil, natural gas liquids and feedstocks processed in crude distillation units and in secondary conversion units.

Refinery processing outturn [A]		Thousand b/d		
		2018	2017	2016
Gasolines		966	955	1,021
Kerosines		321	290	326
Gas/Diesel oils		965	925	942
Fuel oil		284	265	277
Other		321	334	386
Total		2,858	2,769	2,952

[A] Excludes own use and products acquired for blending purposes.

Oil product sales volumes [A][B]		Thousand b/d		
		2018	2017	2016
Europe				
Gasolines		323	317	309
Kerosines		294	272	258
Gas/Diesel oils		745	758	765
Fuel oil		178	170	183
Other products		314	362	287
Total		1,854	1,879	1,802
Asia				
Gasolines		373	399	388
Kerosines		210	216	195
Gas/Diesel oils		543	516	519
Fuel oil		407	349	354
Other products		620	536	593
Total		2,153	2,016	2,049
Oceania				
Gasolines		–	–	–
Kerosines		–	23	55
Gas/Diesel oils		–	–	–
Fuel oil		–	–	–
Other products		–	–	–
Total		–	23	55
Africa				
Gasolines		42	43	41
Kerosines		10	13	10
Gas/Diesel oils		74	78	66
Fuel oil		2	2	1
Other products		6	6	7
Total		134	142	125
Americas				
Gasolines		1,446	1,415	1,331
Kerosines		236	212	205
Gas/Diesel oils		567	545	540
Fuel oil		117	92	69
Other products		276	275	307
Total		2,642	2,539	2,452
Total product sales [C]				
Gasolines		2,184	2,174	2,069
Kerosines		750	736	723
Gas/Diesel oils		1,929	1,897	1,890
Fuel oil		704	613	607
Other products		1,216	1,179	1,194
Total		6,783	6,599	6,483

[A] Excludes deliveries to other companies under reciprocal sale and purchase arrangements, which are in the nature of exchanges. Sales of condensate and natural gas liquids are included.

[B] Includes the Shell share of Raizen's sales volumes.

[C] Certain contracts are held for trading purposes and reported net rather than gross. The effect in 2018 was a reduction in oil product sales of approximately 458,000 b/d (2017: 596,000 b/d; 2016: 839,000 b/d).

## Downstream Continued

Chemicals sales volumes [A]		Thousand tonnes		
		2018	2017	2016
Europe				
Base chemicals		4,069	4,059	3,670
Intermediates and others		1,994	2,056	2,073
Total		6,063	6,115	5,743
Asia				
Base chemicals		2,140	2,515	2,200
Intermediates and others		3,082	3,243	2,927
Total		5,222	5,758	5,127
Oceania				
Base chemicals		—	—	—
Intermediates and others		—	—	—
Total		—	—	—
Africa				
Base chemicals		—	—	—
Intermediates and others		—	—	22
Total		—	—	22
Americas				
Base chemicals		3,842	3,839	4,041
Intermediates and others		2,517	2,527	2,359
Total		6,359	6,366	6,400
Total product sales				
Base chemicals		10,051	10,413	9,911
Intermediates and others		7,593	7,826	7,381
Total		17,644	18,239	17,292

[A] Excludes feedstock trading and by-products.

## MANUFACTURING PLANTS AT DECEMBER 31, 2018

### Refineries in operation

			Shell interest (%) [A]	Crude distillation capacity	Thermal cracking/visbreaking/coking	Catalytic cracking	Hydro-cracking
Europe							
Denmark	Fredericia	●	100	68	39	—	—
Germany	Miro [C]		32	287	36	87	—
	Rheinland	■●	100	325	44	—	80
	Schwert [C]		38	214	40	54	—
Netherlands	Pernis	■●	100	404	45	48	83
Asia							
Japan	Mizue (Toa) [C]	●◆	2	64	24	38	—
	Yamaguchi [C]	◆	1	110	—	25	—
	Yokkaichi [C]	●◆	3	234	—	55	—
Pakistan	Karachi [C]		4	43	—	—	—
Philippines	Tabangao		55	96	31	—	—
Saudi Arabia	Al Jubail [C]	●◆	50	292	61	—	45
Singapore	Pulau Bukom	■●	100	463	72	34	55
Africa							
South Africa	Durban [C]	◆	36	165	23	34	—
Americas							
Argentina	Buenos Aires [C]	●◆	50	99	18	20	—
Canada							
Alberta	Scotford	◆	100	92	—	—	74
Ontario	Sarnia	◆	100	73	4	19	9
USA							
California	Martinez	●	100	144	43	65	38
Louisiana	Convent	◆	100	239	—	83	49
	Norco	■	100	229	26	108	39
Texas	Deer Park	■●	50	312	82	68	53
Washington	Puget Sound	●◆	100	137	23	52	—

[A] Shell interest is rounded to the nearest whole percentage point; Shell share of production capacity may differ.

[B] Calendar day capacity is the maximum sustainable capacity adjusted for normal unit downtime.

[C] Not operated by Shell.

- Integrated refinery and chemical complex.
- Refinery complex with cogeneration capacity.
- ◆ Refinery complex with chemical unit(s).

## Downstream Continued

### Major chemical plants in operation [A]

	Location	Ethylene	Thousand tonnes/year, Shell share capacity [B]				Additional products
			Styrene monomer	Ethylene glycol	Higher olefins [C]		
<b>Europe</b>							
Germany	Rheinland	315	—	—	—	—	A
Netherlands	Moerdijk	971	816	153	—	—	A, I
UK	Mossmorran [D]	415	—	—	—	—	—
	Stanlow [D] [E]	—	—	—	315	—	I
<b>Asia</b>							
China	Nanhai [D]	1,100	650	415	—	—	A, I, P
Singapore	Jurong Island	281	1,069	1,159	—	—	A, I, P, O
	Pulau Bukom	1,148	—	—	—	—	A, I
<b>Americas</b>							
Canada	Scotford	—	485	520	—	—	A, I
USA	Deer Park	836	—	—	—	—	A, I
	Geismar	—	—	400	965	—	I
	Norco	1,432	—	—	—	—	A
<b>Total</b>		<b>6,498</b>	<b>3,020</b>	<b>2,647</b>	<b>1,280</b>		

[A] Major chemical plants are large integrated chemical facilities, typically producing a range of chemical products from an array of feedstocks, and are a core part of our global Chemicals business.

[B] Shell share of capacity of subsidiaries, joint arrangements and associates (Shell and non-Shell-operated), excluding capacity of the Infineum additives joint ventures.

[C] Higher olefins are linear alpha and internal olefins (products range from C6-C2024).

[D] Not operated by Shell.

[E] Our Shell Higher Olefins Plant (SHOP) facilities at Stanlow suffered a fire in August 2018; rebuild was considered uneconomic and the decision was taken in December 2018 to decommission all Shell units on site.

A Aromatics, lower olefins.

I Intermediates.

P Polyethylene, polypropylene.

O Other.

### Other chemical locations [A]

	Location	Products
<b>Europe</b>		
Germany	Karlsruhe	A
	Schwedt	A
Netherlands	Pernis	A, I, O
<b>Americas</b>		
Argentina	Buenos Aires	I
Canada	Sarnia	A, I
USA	Martinez	O
	Mobile	A
	Puget Sound	I

[A] Other chemical locations reflect locations with smaller chemical units, typically serving more local markets.

A Aromatics, lower olefins.

I Intermediates.

O Other.

# Corporate

Earnings		\$ million	
	2018	2017	2016
Segment earnings	(1,479)	(2,416)	(1,751)
Comprising:			
Net interest and investment expense [A]	(2,192)	(2,413)	(1,824)
Net foreign exchange gains/(losses) [B]	(67)	(292)	3
Taxation and other [C]	780	289	70

[A] Mainly Shell's interest expense (excluding accretion expense) and interest income, together with the Shell share of joint ventures and associates' net interest expense, and net gains on sales from Shell insurance entities' portfolio of debt securities.

[B] On Shell's financing activities, together with the Shell share of joint ventures and associates' net foreign exchange gains/(losses) on financing activities.

[C] Other earnings mainly comprise headquarters and central functions' costs not recovered from business segments, and net gains on sale of properties.

## OVERVIEW

The Corporate segment covers the non-operating activities supporting Shell. It comprises Shell's holdings and treasury organisation, its self-insurance activities and its headquarters and central functions. All finance expense and income as well as related taxes are included in the Corporate segment earnings rather than in the earnings of the business segments.

The holdings and treasury organisation manages many of the Corporate entities and is the point of contact between Shell and external capital markets. It conducts a broad range of transactions – from raising debt instruments to transacting foreign exchange. Treasury centres in London and Singapore support these activities.

Headquarters and central functions provide business support in the areas of communications, finance, health, human resources, information technology, legal services, real estate and security. They also provide support for the shareholder-related activities of the Company. The central functions are supported by business service centres located around the world, which process transactions, manage data and produce statutory returns, among other services. The majority of the headquarters and central-function costs are recovered from the business segments. Those costs that are not recovered are retained in Corporate.

## EARNINGS 2018-2016

Segment earnings in 2018 were a loss of \$1,479 million, compared with a loss of \$2,416 million in 2017 and a \$1,751 million loss in 2016.

Net interest and investment expense decreased by \$221 million compared with 2017. This was due to a decrease in interest expense due to more capitalised interest, coupled with higher interest income from increases to both cash levels and higher interest rates. In 2017, net interest and investment expense increased by \$589 million compared with 2016. Interest expense increased due to the inclusion of a full year of interest on debt assumed on the BG acquisition in 2016, finance leases entered into during 2017 and higher interest rates (see Note 14 to the "Consolidated Financial Statements" on page 191).

The Corporate segment includes net foreign exchange gains/(losses) from financing positions. Net foreign exchange gains/(losses) generally relate to the impact of changes in exchange rates on non-functional currency loans and cash balances in operating companies. In 2018, unfavourable exchange rate movements resulted in a net foreign exchange loss. In 2017 there were exchange rate gains, but these were more than offset by a charge of \$545 million from restructuring of funding in North America.

Taxation and other earnings increased by \$491 million in 2018, compared with 2017, due to increased tax credits from foreign exchange losses, which were partially offset by increased corporate expenses and depreciation

charges. In 2017, taxation and other earnings increased by \$219 million compared with 2016, due to lower costs incurred in connection with the BG acquisition and integration in 2017, which were partly offset by a charge in 2017 due to US tax reform legislation.

## SELF-INSURANCE

We mainly rely on self-insurance for many of our risk exposures and capital is set aside to meet self-insurance obligations (see "Risk factors" on page 18). We seek to ensure that the capital held to support the self-insurance obligations is at a level at least equivalent to what would be held in the third-party insurance market. Periodically, surveys of key assets are undertaken that provide risk-engineering knowledge and best practices to Shell subsidiaries with the aim to reduce their exposure to hazard risks. Actions identified during these surveys are monitored to completion.

## INFORMATION TECHNOLOGY AND CYBER SECURITY

Given our digitalisation efforts and increasing reliance on information technology (IT) systems for our operations, we continuously monitor external developments and actively share information on threats and security incidents. Shell employees and contract staff are subject to mandatory courses and regular awareness campaigns aimed at protecting us against cyber threats. We periodically test and adapt cyber-security response processes and seek to enhance our security monitoring capability.

Given our dependence on IT systems for our operations and the increasing role of digital technologies across our business, we are aware that cyber-security attacks could cause significant harm to Shell in the form of loss of productivity, loss of intellectual property, regulatory fines and/or reputational damage. As a result, we continuously measure and, where required, further improve our cyber-security capabilities to reduce the likelihood of successful cyberattacks. Our cyber-security capabilities are embedded into our IT systems and our IT landscape is protected by various detective and protective technologies. The identification and assessment capabilities are built into our support processes and adhere to industry best practices. The security of IT services, operated by external IT companies, is managed through contractual clauses and through formal supplier assurance reports.

Shell is frequently subject to cyberattacks. In 2018, none of these events led to breaches of our business-critical IT landscape and, as such, did not result in any material business impact. When significant incidents occur, they are followed up with a thorough root-cause analysis and, if needed, will result in appropriate follow-up actions.

See "Risk factors" on page 19.

# Liquidity and capital resources

We manage our businesses to deliver strong cash flows to fund investment for profitable growth. Our aim is that, across the business cycle, "cash in" (including cash from operations and divestments) at least equals "cash out" (including capital expenditure, interest and dividends), while maintaining a strong balance sheet. Our priorities for applying our cash are the servicing and reduction of debt commitments, payment of dividends, followed by a balance of capital investment and share buybacks.

## FINANCIAL CONDITION AND LIQUIDITY

Strong operational performance in 2018, together with improved commodity prices and proceeds from our divestment programme, supported the commencement of a share buyback programme of at least \$25 billion, by the end of 2020, subject to further progress with debt reduction and oil price conditions. \$3.9 billion of share buybacks were completed in 2018. Gearing was reduced in the year and, at December 31, 2018, was 20.3% (2017: 25.0%). Gearing is a key measure of our capital structure and is defined as net debt (total debt less cash and cash equivalents) as a percentage of total capital (net debt plus total equity). With effect from 2018, the net debt calculation includes the fair value of derivative financial instruments used to hedge foreign exchange and interest rate risks relating to debt and associated collateral balances. We believe that this amendment is useful, because it reduces the volatility of net debt caused by fluctuations in foreign exchange and interest rates and eliminates the potential impact of related collateral payments or receipts. Across the business cycle, we aim to manage gearing within a range of 0-30%. Note 14 to the "Consolidated Financial Statements" on page 191 provides information on our debt arrangements, including gearing.

We are affected by the global macroeconomic environment, as well as financial and commodity market conditions. This exposes us to treasury and trading risks, including liquidity risk, market risk (interest rate risk, foreign exchange risk and commodity price risk) and credit risk. See "Risk factors" on page 18 and Note 19 to the "Consolidated Financial Statements" on pages 202-207. The size and scope of our businesses require a robust financial control framework and effective management of our various risk exposures.

## LIQUIDITY

We satisfy our funding and working capital requirements from the cash generated from our operations, the issuance of debt and divestments. In 2018, access to the international debt capital markets remained strong, with our debt principally financed from these markets through central debt programmes consisting of:

- a \$10 billion global commercial paper (CP) programme, with maturities not exceeding 270 days;
- a \$10 billion US CP programme, with maturities not exceeding 397 days;
- an unlimited Euro medium-term note (EMTN) programme (also referred to as the Multi-Currency Debt Securities Programme); and
- an unlimited US universal shelf (US shelf) registration.

All these CP, EMTN and US shelf issuances are issued by Shell International Finance B.V., the issuance company for Shell, with its debt being guaranteed by Royal Dutch Shell plc (the Company).

We also maintain a committed credit facility, which was increased in September 2018 to \$8.8 billion and which expires in 2020. It remained undrawn at December 31, 2018. This facility and internally available liquidity provide back-up coverage for our CP programmes. Other than certain borrowing by local subsidiaries, we do not have any other committed credit facilities.

Our total debt decreased by \$8.8 billion in 2018 to \$76.8 billion at December 31, 2018. The amount excluding finance leases will mature as follows: 15% in 2019; 9% in 2020; 8% in 2021; 7% in 2022; and 61% in 2023 and beyond. The portion of debt maturing in 2019 is expected to be repaid from a combination of cash balances, cash generated from operations, divestments and the issuance of new debt.

In 2018, we issued \$3 billion of bonds under our US shelf registration. Periodically, for working capital purposes, we issued CP. We believe our current working capital is sufficient for our present requirements.

While our subsidiaries are subject to restrictions, such as foreign withholding taxes on the transfer of funds in the form of cash dividends, loans or advances, such restrictions are not expected to have a material impact on our ability to meet our cash obligations.

## MARKET RISK AND CREDIT RISK

In the normal course of business, financial instruments of various kinds are used for the purposes of managing exposure to commodity price, foreign exchange and interest rate movements. Our treasury and trading operations are highly centralised and seek to manage credit exposures associated with our substantial cash, commodity, foreign exchange and interest rate positions. Our portfolio of cash investments is diversified to avoid concentrating risk in any one instrument, country, or counterparty. We monitor our investments and adjust them in light of new market information. Exposure to failed financial and trading counterparties was not material in 2018. Treasury standards are applicable to all our subsidiaries, and each subsidiary is required to adopt a treasury policy consistent with these standards. Other than in exceptional cases, the use of external derivative instruments is confined to specialist trading and central treasury organisations that have appropriate skills, experience, supervision, control and reporting systems.

## PENSION COMMITMENTS

We have substantial pension commitments, the funding of which is subject to capital market risks (see "Risk factors" on page 18). We address key pension risks in a number of ways. Principal among these is the Pensions Forum, chaired by the Chief Financial Officer, which oversees Shell's input to pension strategy, policy and operation. The forum is supported by a risk committee in reviewing the results of assurance processes with respect to pension risks. In general, local trustees manage the funded defined benefit pension plans, with contributions paid based on independent actuarial valuations in accordance with local regulations. Our total employer contributions to funded and unfunded defined benefit pension plans were \$0.8 billion in 2018 and are estimated to be \$0.9 billion in 2019.

Capitalisation table	\$ million	
	Dec 31, 2018	Dec 31, 2017
Equity attributable to Royal Dutch Shell plc shareholders	198,646	194,356
Current debt	10,134	11,795
Non-current debt	66,690	73,870
Total debt [A]	76,824	85,665
Total capitalisation	275,470	280,021

[A] Of total debt, \$62.7 billion (2017: \$70.1 billion) was unsecured and \$14.1 billion (2017: \$15.6 billion) was secured. See Note 14 to the "Consolidated Financial Statements" on pages 191-193 for further disclosure on debt.

## STATEMENT OF CASH FLOWS

Cash flow from operating activities in 2018 was an inflow of \$53.1 billion, compared with \$35.7 billion in 2017, mainly due to higher earnings and a favourable working capital impact. The increase in cash flow from operating activities in 2017, compared with \$20.6 billion in 2016, was mainly due to higher earnings.

Cash flow from investing activities in 2018 was an outflow of \$13.7 billion, compared with \$8.0 billion in 2017. The increased cash outflow was mainly due to lower proceeds from the sale of assets and securities in 2018. The decreased cash outflow in 2017 compared with \$31.0 billion in 2016 was mainly due to the acquisition of BG in 2016 and higher proceeds from the sale of assets in 2017.

Cash flow from financing activities in 2018 was an outflow of \$32.5 billion, compared with outflows of \$27.1 billion in 2017 and \$0.8 billion in 2016. In 2018, this included payment of dividends to Royal Dutch Shell plc shareholders of \$15.7 billion (2017: \$10.9 billion; 2016: \$9.7 billion), net repayment of debt of \$8.3 billion (2017: \$11.8 billion net repayment of debt; 2016: \$11.1 billion net issuance of debt), repurchases of shares of \$3.9 billion and interest paid of \$3.6 billion (2017: \$3.6 billion; 2016: \$2.9 billion).

Cash and cash equivalents were \$26.7 billion at December 31, 2018 (2017: \$20.3 billion; 2016: \$19.1 billion).

## CASH FLOW FROM OPERATING ACTIVITIES

The most significant factors affecting our cash flow from operating activities are earnings, which are mainly impacted by: realised prices for crude oil, natural gas and liquefied natural gas (LNG); production levels of crude oil, natural gas and LNG; refining and marketing margins; and movements in working capital.

The impact on earnings from changes in market prices depends on: the extent to which contractual arrangements are tied to market prices; the dynamics of production-sharing contracts; the existence of agreements with governments or

state-owned oil and gas companies that have limited sensitivity to crude oil and natural gas prices; tax impacts; and the extent to which changes in commodity prices flow through into operating costs. Changes in benchmark prices of crude oil and natural gas in any particular period therefore provide only a broad indicator of changes in our Integrated Gas and Upstream earnings in that period. In the longer term, replacement of proved oil and gas reserves will affect our ability to maintain or increase production levels, which in turn will affect our earnings and cash flows. Changes in any one of a range of factors derived from either within the industry or the broader economic environment can influence refining and marketing margins. The precise impact of any such changes depends on how the oil markets respond to them. The market response is affected by factors such as: whether the change affects all crude oil types or only a specific grade; regional and global crude-oil and refined-products inventories; and the collective speed of response of refiners and product marketers in adjusting their operations. As a result, margins fluctuate from region to region and from period to period.

## CAPITAL INVESTMENT

The level of capital investment in 2018 and 2017 reflects our discipline, focus and capital efficiency, which have allowed us to maintain our investment levels at below the \$25-\$30 billion range. Capital investment in 2016 included \$52.9 billion relating to the acquisition of BG.

Capital investment [A]	\$ million		
	2018	2017	2016
Integrated Gas	4,460	3,827	26,214
Upstream	12,525	13,648	47,507
Downstream	7,564	6,416	6,057
Corporate	230	115	99
Total capital investment	24,779	24,006	79,877

[A] See "Non-GAAP measures reconciliations" on page 263.

## Cash flow information [A]

	2018	2017 [B]	2016 [B]
Cash flow from operating activities excluding working capital movements			
Integrated Gas	16.3	8.7	8.0
Upstream	21.9	16.3	9.8
Downstream	10.8	12.6	10.4
Corporate	0.7	0.3	0.9
Total	49.6	37.9	29.0
(Increase)/decrease in inventories	2.8	(2.1)	(5.7)
(Increase)/decrease in current receivables	2.0	(2.6)	(4.1)
Increase/(decrease) in current payables	(1.3)	2.4	1.4
(Increase)/decrease in working capital	3.4	(2.3)	(8.4)
Cash flow from operating activities	53.1	35.7	20.6
Cash flow from investing activities	(13.7)	(8.0)	(31.0)
Cash flow from financing activities	(32.5)	(27.1)	(0.8)
Currency translation differences relating to cash and cash equivalents	(0.4)	0.6	(1.5)
Increase/(decrease) in cash and cash equivalents	6.4	1.2	(12.7)
Cash and cash equivalents at the beginning of the year	20.3	19.1	31.8
Cash and cash equivalents at the end of the year	26.7	20.3	19.1

[A] See the "Consolidated Statement of Cash Flows" on page 171.

[B] With effect from 2018, presentation of Cash flow from operating activities has been revised. Prior period comparatives within Cash flow from operating activities have been revised to conform with current year presentation. Overall, the revisions do not have an impact on the previously published Cash flow from operating activities. See the "Consolidated Statement of Cash Flows".

## Liquidity and capital resources Continued

### DIVESTMENTS

In 2018, we continued to divest assets that fail to deliver competitive performance or no longer meet our longer-term strategic objectives, including Integrated Gas assets in Thailand, Malaysia and New Zealand, Upstream assets in Ireland, Iraq, Norway and Oman, as well as Downstream assets in Argentina. We also sold part of our interest in Shell Midstream Partners, L.P., while retaining control.

Divestments [A]	\$ million		
	2018	2017	2016
Integrated Gas	3,124	3,077	352
Upstream	2,198	11,542	1,726
Downstream	1,718	2,703	2,889
Corporate	62	18	17
Total	7,102	17,340	4,984

[A] See "Non-GAAP measures reconciliations" on page 263.

### DIVIDENDS

Our policy is to grow the dollar dividend through time, in line with our view of our underlying earnings and cashflow. When setting the dividend, the Board of Directors looks at a range of factors, including the macroeconomic environment, the current balance sheet and future investment plans. We returned \$15.7 billion to our shareholders through dividends in 2018.

The fourth quarter 2018 interim dividend of \$0.47 per share will be payable to shareholders on the register at February 15, 2019. See Note 23 to the "Consolidated Financial Statements" on page 211. The Board expects that the first quarter 2019 interim dividend will be \$0.47 per share, equal to the US dollar dividend for the same quarter in 2018.

### PURCHASES OF SECURITIES

At the 2018 Annual General Meeting (AGM), shareholders granted an authority, which expires at the earlier of the close of business on August 22, 2019, and the end of the 2019 AGM, for the Company to repurchase up to a maximum of 10% of its issued ordinary shares, excluding treasury shares (834 million ordinary shares). In accordance with this authority, on July 26, 2018, the Company announced the immediate start of a share buyback programme of at least \$25 billion, by the end of 2020, subject to further progress with debt reduction and oil price conditions. As at December 31, 2018, 125 million A ordinary shares with a nominal value of €8.8 million (\$10.6 million) (1.52% of the Company's total issued share capital at December 31, 2018) had been purchased and cancelled for a total cost of \$3.9 billion including expenses, at an average price of \$31.55 per share. This means that 709 million ordinary shares could still be repurchased under the current AGM authority at December 31, 2018. The purpose of the share repurchases in 2018 as well as in the period ended January 28, 2019, was to reduce the issued share capital of the Company. A new resolution will be proposed at the 2019 AGM to renew the authority for the Company to purchase its own share capital, up to specified limits, for a further year. This proposal will be described in more detail in the 2019 Notice of Annual General Meeting.

Shares are also purchased by the employee share ownership trusts and trust-like entities (see the "Directors' Report" on page 94) to meet delivery commitments under employee share plans. All share purchases are made in open-market transactions.

The table below provides information on purchases of shares in 2018, as well as in the period ended January 31, 2019, by the Company and affiliated purchasers. Purchases in euros and sterling are converted into dollars using the exchange rate on each transaction date.

### Purchases of equity securities by issuer and affiliated purchasers in 2018 [A]

Purchase period	A shares		B shares		A ADSs[B]		
	Number purchased for employee share plans	Number purchased for cancellation [C]	Weighted average price (\$)[D]	Number purchased for employee share plans	Weighted average price (\$)[D]	Number purchased for employee share plans	Weighted average price (\$)[D]
January	5,098,000	—	35.49	5,159,100	36.38	2,916,028	68.18
February	2,922,672	—	35.50	1,226,154	36.55	—	—
March	—	—	—	135,255	32.20	94,706	64.78
April	283,438	—	31.70	—	—	—	—
May	4,493,320	—	34.82	1,408,045	35.97	—	—
June	—	—	—	83,800	35.99	61,195	67.33
July	187,000	1,811,707	34.33	—	—	—	—
August	—	22,124,641	32.87	—	—	—	—
September	233,910	19,118,621	32.76	99,500	33.76	63,116	66.03
October	—	17,789,837	33.41	—	—	—	—
November	—	30,058,425	30.97	—	—	—	—
December	268,252	34,343,523	29.42	111,810	28.89	603,228	56.54
Total 2018	13,486,592	125,246,754	31.89	8,223,664	36.13	3,738,273	66.16
January	—	19,086,716 [E]	29.95	—	—	1,854,168	59.21
Total 2019	—	19,086,716	29.95	—	—	1,854,168	59.21

[A] Reported as at settlement date.

[B] American Depository Shares.

[C] Under the share buyback programme.

[D] Includes stamp duty and brokers' commission.

[E] As at January 28, 2019, the end of the second tranche of the share buyback programme.

## CONTRACTUAL OBLIGATIONS

The table below summarises our principal contractual obligations at December 31, 2018, by expected settlement period. The amounts presented have not been offset by any committed third-party revenue in relation to these obligations.

<b>Contractual obligations</b>	\$ billion				
	Between				
	Less than 1 year	1 and 3 years	3 and 5 years	5 years and later	Total
Debt [A]	9.1	11.1	8.8	33.5	62.6
Finance leases [A]	2.1	3.9	3.6	13.4	22.9
Operating leases [A]	4.8	6.8	4.7	7.9	24.2
Purchase obligations [B]	27.8	22.3	14.1	50.9	115.1
Other long-term contractual liabilities [C]	–	0.7	0.2	0.9	1.8
<b>Total</b>	<b>43.7</b>	<b>44.9</b>	<b>31.6</b>	<b>106.5</b>	<b>226.7</b>

[A] See Note 14 to the "Consolidated Financial Statements" on pages 191-193. Debt contractual obligations exclude interest, which is estimated to be \$1.8 billion payable in less than one year, \$3.0 billion between one and three years, \$2.6 billion between three and five years, and \$14.4 billion in five years and later. For this purpose, we assume that interest rates with respect to variable interest rate debt remain constant at the rates in effect at December 31, 2018, and that there is no change in the aggregate principal amount of debt other than repayment at scheduled maturity as reflected in the table. Finance lease contractual obligations include interest.

[B] As revised, Purchase obligations disclosed in the above table exclude commodity purchase obligations that are not fixed or determinable and are principally intended to be resold in a short period of time through sale agreements with third parties. Examples include long-term non-cancellable LNG and natural gas purchase commitments and commitments to purchase refined products or crude oil at market prices. Inclusion of such commitments would not be meaningful in measuring liquidity and cash flow, as the cash outflows generated by these purchases will generally be offset in the same periods by cash received from the related sales transactions.

[C] Includes all obligations included in "Trade and other payables" in "Non-current liabilities" in the "Consolidated Balance Sheet" that are contractually fixed as to timing and amount. In addition to these amounts, Shell has certain obligations that are not contractually fixed as to timing and amount, including contributions to defined benefit pension plans (see Note 17 to the "Consolidated Financial Statements" on pages 197-200) and obligations associated with decommissioning and restoration (see Note 18 to the "Consolidated Financial Statements" on page 201).

## GUARANTEES AND OTHER OFF-BALANCE SHEET ARRANGEMENTS

There were no off-balance sheet arrangements at December 31, 2018, or 2017, reasonably likely to have a material effect on Shell.

## FINANCIAL INFORMATION RELATING TO THE ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST

The results of operations and financial position of the Royal Dutch Shell Dividend Access Trust (the Trust) are included in the consolidated results of operations and financial position of Shell. Certain condensed financial information in respect of the Trust is given below. See "Royal Dutch Shell Dividend Access Trust Financial Statements" on pages 251-255.

The Shell Transport and Trading Company Limited and BG Group Limited have each issued a dividend access share to Computershare Trustees (Jersey) Limited (the Trustee). For the years 2018, 2017 and 2016, the Trust recorded income before tax of £5,328 million, £4,567 million, and £3,879 million respectively. In each period, this reflected the amount of dividends received on the dividend access shares.

At December 31, 2018, the Trust had total equity of £nil (2017: £nil; 2016: £nil), reflecting cash of £3 million (2017: £2 million; 2016: £2 million) and unclaimed dividends of £3 million (2017: £2 million; 2016: £2 million). The Trust only records a liability for an unclaimed dividend, and a corresponding amount of cash, to the extent that dividend cheque payments have not been presented within 12 months, have expired or have been returned unpresented.

# Environment and society

Our success in business depends on our ability to meet a range of environmental and social challenges. We must operate safely and manage the effect our activities can have on neighbouring communities and wider society. If we fail to do this, we may incur liabilities or sanctions, lose business opportunities, harm our reputation, or our licence to operate may be impacted (see "Risk factors" on page 17).

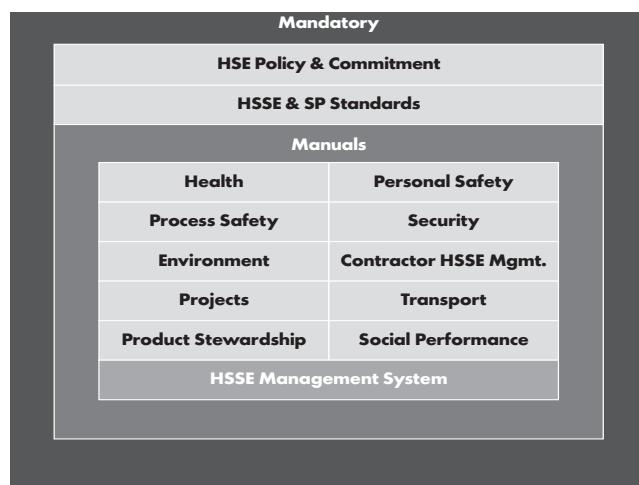
Data in this section are reported on a 100% basis in respect of activities where we are the operator. Reporting on this operational control basis differs from that applied for financial reporting purposes in the "Consolidated Financial Statements" on pages 167-214. Detailed data and information on our 2018 environmental and social performance will be published in the Shell Sustainability Report in April 2019.

## CONTROL FRAMEWORK

The Shell General Business Principles set out our responsibilities to shareholders, customers, employees, business partners and society. They set the standards for the way we conduct business, with integrity and respect for people, the environment and communities. All ventures that we operate must conduct their activities in line with our business principles.

We aim to minimise the environmental impact of new projects and existing operations and we engage with local communities and non-governmental organisations to understand and respond to their concerns. Shell conducts an environmental, social and health impact assessment for every major project. This helps us to understand and manage the effects our projects could have on the surrounding environment and local communities. We have standards and a clear governance structure in place to help manage potential impacts. Our standards are defined in our Health, Safety, Security, Environment and Social Performance (HSSE & SP) Control Framework (Control Framework), in line with the Shell Commitment and Policy on Health, Security, Safety, the Environment and Social Performance and the Shell Code of Conduct, and are supported by a number of guidance documents. They apply to every Shell entity, including all employees and contract staff, and to Shell-operated ventures. The Control Framework defines standards and accountabilities at each level of the organisation and sets out the procedures and processes people are required to follow. We manage HSSE & SP risks to as low as reasonably practicable, which is a business responsibility supported by the HSSE & SP function. The process safety and HSSE & SP assurance team provides assurance on the effectiveness of HSSE & SP controls to the Board.

## HSSE & SP Control Framework



Our three Golden Rules require our employees and contract staff to comply with laws and regulations as well as our standards and procedures, to intervene in unsafe or non-compliant situations, and to respect our neighbours.

We expect ventures not operated by us to apply standards and principles similar to our own. We support these ventures in their implementation of our HSSE & SP Control Framework, or of a similar framework, and offer to review the effectiveness of their implementation. Even if such a review is not carried out, we periodically evaluate HSSE & SP risks faced by the ventures which we do not operate. If one of these ventures does not meet our expectations, we work to put plans in place, in agreement with our partners, to improve performance.

Shell aims to work with suppliers that behave in a safe, economically, environmentally and socially-responsible manner. Our approach to suppliers is set out in our Shell General Business Principles and Shell Supplier Principles. These principles cover expectations in areas such as business integrity, health and safety, and human rights. Working with suppliers in this way is central to maintaining a strong societal support for our operations.

## SAFETY

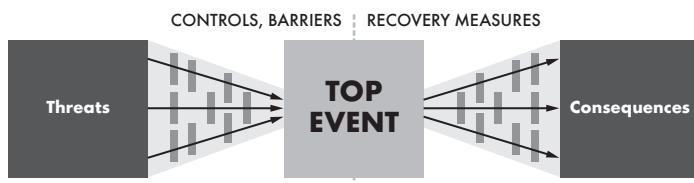
Safety is central to the responsible delivery of energy. We develop and operate our facilities with the aim of preventing any incidents that may harm our employees, contract staff or nearby communities, or cause damage to our assets or adversely impact the environment. We manage safety risks across our businesses through clear standards, controls and compliance systems, combined with a safety-focused culture. We focus on the three areas of safety with the highest risks associated with our activities: personal, process, and transport. We ensure that people responsible for tasks involving a significant safety hazard have the necessary training and skills. Safety performance is included in our annual bonus scorecard for all our employees. Also see "Directors' Remuneration Report" on page 133.

We continue to strengthen the safety culture and leadership among our employees and contract staff, with the focus on caring for people. Our safety goal is to achieve no harm and no leaks across all our operations. We refer to this as our Goal Zero ambition.

We expect everyone working for us to intervene and stop work that may appear to be unsafe. In addition to our ongoing safety awareness programmes, we hold an annual global safety day to give employees and contract staff time to reflect on how to prevent incidents. We expect everyone working for us to comply with our 12 mandatory Life-Saving Rules. If employees break these rules, they face disciplinary action up to and including termination of employment. If contract staff break the Life-Saving Rules, they can be removed from the worksite.

Process safety management is about keeping hazardous substances inside pipes, tanks and vessels so they do not cause any harm to people or the environment. It starts at the design and construction stage of our projects and is implemented throughout the life cycle of these facilities to ensure they are operated safely, well-maintained and regularly inspected. Our global standards and operating procedures define the controls and physical barriers we require to prevent incidents. For example, our offshore wells are designed with at least two independent barriers in the direction of flow to mitigate the risk of an uncontrolled release of hydrocarbons. We regularly inspect, test and maintain these barriers to ensure they meet our standards. In the event of a loss of containment such as a spill or a leak, we employ independent recovery measures to prevent the release from becoming catastrophic. This system of barriers and recovery measures is known as a "bow-tie", a model that visually represents a system where process safety hazards are managed through prevention and response barriers. Since 2016, we have been working on strengthening barriers that involve critical safety tasks carried out by frontline staff. We have been working on embedding a set of process safety fundamentals, which provide clear guidelines for good operating practice to prevent unplanned releases.

### Risk management approach



We also routinely prepare and practise our emergency response to potential incidents such as a spill or a fire. This involves working closely with local services and regulatory agencies to jointly test our plans and procedures. These tests continually improve our readiness to respond. If an incident does occur, we have procedures in place to reduce the impact on people and the environment.

Transporting large numbers of people, products and equipment by road, rail, sea and air poses safety risks. We develop best-practice standards within Shell to find ways of reducing travel and transport safety risks, and work with specialist contractors, industry bodies, non-governmental organisations and governments.

Shell employees and contractors drove a combined distance of around 600 million kilometres on business in 2018 in more than 60 countries. We run road safety programmes, such as those that promote safe driving techniques and behaviour. We require everyone driving more than 7,500 kilometres a year on company business on public roads and those who drive in road safety high-risk countries to take a defensive driving course. Outside our operations, we also work to improve road safety in several communities and countries where we operate.

While we continually work to minimise the likelihood of incidents, some do occur. Tragically, two contractors lost their lives while working for Shell in 2018. We require all incidents to be investigated to understand the underlying causes and seek to translate these into improvements in standards or ways of working that can be applied broadly across similar facilities in Shell.

As set out in "Performance indicators" on page 28, our total recordable case frequency (injuries per million working hours) was 0.9 in 2018, compared with 0.8 in 2017, and there were 121 operational Tier 1 and 2 process safety events in 2018, compared with 166 in 2017. Detailed information on our 2018 safety performance will be published in the Shell Sustainability Report in April 2019.

### Pakistan

In June 2017, a devastating roll-over incident occurred in Pakistan involving a road tanker hired by a company that was providing road transport services to Shell Pakistan Limited, following which people from a nearby village approached the incident site to collect spilled fuel. Tragically, the fuel ignited resulting in the loss of more than 200 lives and left many other people seriously injured.

Following the incident Shell Pakistan Limited provided immediate relief support, including providing food supplies for 150 affected families for nine months and medical supplies to hospitals. Shell Pakistan Limited has also contributed to long-term relief efforts for those impacted. For example, the CARE Foundation, in partnership with Shell Pakistan Limited, has 'adopted' two public schools within the impacted villages to improve infrastructure and education standards. Shell Pakistan Limited is also working with the National Rural Support Programme to help restore livelihoods of people in affected communities, providing vocational training and support for setting up small businesses.

We finalised our internal investigations in 2018 and we continue to implement our learnings from the incident. This includes deep reflection by the Board and Executive Committee, who have initiated several improvement programmes to be adopted throughout the Shell Group. We have developed and started the implementation of a road transport improvement project, specifically targeted at the management of fuel transport in high-risk countries. We are working with road transport companies in other locations where factors relevant to the Pakistan incident may exist and have also started sharing what we have learned with others in the fuel transport industry.

Shell Pakistan Limited continues to work with regulators, emergency services and the wider oil and gas industry in Pakistan with a view to improving safety standards. Shell Pakistan Limited has also required the road transport companies it hires to improve the safety of their transport fleets and has ongoing safety engagements with hauliers and their drivers, seeking to help them to identify and address the risks associated with driving fuel tankers. This has included emergency-response drills to build and test capability.

Road transportation remains a challenging and complex area for industry worldwide. Sadly, in October 2018, there was another roll-over incident in Pakistan involving a customer tanker, which resulted in the death of the relief driver and a spill. This incident was outside of Shell's operational control and outside of our reporting scope. See "Directors' Remuneration Report" on page 119.

### **ENVIRONMENT**

We carefully consider the potential environmental impact of our activities and how local communities might be affected during the lifetime of our projects and operations. We seek to comply with environmental regulations, to continually improve our performance, and to prepare to respond to future challenges and opportunities. We use external standards and guidelines, such as those developed by the World Bank and International Finance Corporation, to inform our approach. We have global environmental standards, which we believe meet applicable regulatory requirements and often exceed them. Our standards cover our environmental performance, including managing emissions of greenhouse gases (GHG), using energy more efficiently, flaring less gas during oil production, preventing spills and leaks of hazardous materials, using less fresh water and conserving biodiversity wherever we operate.

For example, the availability of fresh water is a growing challenge in some parts of the world. A combination of increasing demand for water resources, growing stakeholder expectations and concerns, and water-related legislation may drive actions that affect our ability to secure access to fresh water and to discharge water from our operations. We manage our water use carefully, and we tailor our use of fresh water to local conditions because water constraints affect people at the local or regional level. In some cases, we use alternatives to fresh water in our operations; these include recycled water, processed sewage water and desalinated water. For example, at our gas-to-liquids plant in the Qatari desert, we clean and reuse industrial process water. This means that we reduce our use of the country's scarce natural water resources. An assessment of risks to water availability is required to be undertaken for each of our assets and projects and, in areas of water scarcity, we develop water-management action plans that identify ways to use less fresh water, recycle water and closely monitor its use.

In 2018, our intake of fresh water was 199 million cubic metres, about the same as 2017. Around 90% of our fresh water intake was used for manufacturing oil products and chemicals, with the balance mainly used for oil and gas production. Around 40% of freshwater intake was from public utilities, such as municipal water supplies.

See "Climate change and energy transition" on pages 71-78 for more information on how we manage our GHG emissions.

### **SPILLS**

Large spills of crude oil, oil products and chemicals associated with our operations can adversely impact the environment and result in major clean-up costs as well as fines and other damages. They can also affect our licence to operate and harm our reputation. We have requirements and procedures designed to prevent spills.

Our business units are responsible for organising and executing oil-spill responses in line with Shell guidelines as well as with relevant legal and regulatory requirements. All our offshore installations have plans in place to respond to spills. These plans detail response strategies and techniques, available equipment, and trained personnel and contracts. We are able to call upon site-managed resources such as containment booms. We are also able to draw upon the contracted services of oil-spill response organisations their containment booms, collection vessels, aircraft or other equipment if required for large spills. We conduct regular exercises that seek to ensure these plans remain effective. We have further developed our capability to respond to spills to water and maintain a Global Response Support

Network comprised of trained staff to support our worldwide response capability. This is also supported by our global Oil Spill Expertise Centre, which tests local capability and maintains our capability globally to respond to a significant spill into a marine environment.

We are a founding member of the Marine Well Containment Company, a non-profit industry consortium providing a well-containment response system for the Gulf of Mexico. In addition, we are a founding member of the Subsea Well Response Project, an industry cooperative effort to enhance global well-containment capabilities, which has transitioned to Oil Spill Response Limited, an industry consortium.

We also maintain site-specific emergency-response plans in the event of an onshore spill. Like the offshore response plans, these are designed to meet Shell guidelines as well as relevant legal and regulatory requirements. They also provide for the initial assessment of incidents and the mobilisation of resources needed to manage them.

In 2018, the number of operational spills of more than 100 kilograms decreased to 92 from 104 in 2017 (see "Performance indicators" on page 28). At the time of publication of this Report, there was one spill under investigation in Nigeria that may result in adjustments.

### **Spills in Nigeria**

Most oil spills in the Niger Delta region of Nigeria continue to be caused by crude oil theft or sabotage of oil and gas production facilities, as well as illegal oil refining, including the distribution of illegally refined products. In 2018, close to 90% of the number of oil spills of more than 100 kilograms from The Shell Petroleum Development Company of Nigeria Limited (SPDC) joint venture facilities was due to illegal activities by third parties. However, there are instances where spills occur due to operational reasons. Irrespective of the cause, SPDC cleans up and remediates areas impacted by spills originating from its facilities. In the case of operational spills, SPDC also pays compensation to people and communities impacted by the spills. Once clean-up and remediation work are completed, the work is inspected and, if satisfactory, approved and certified by Nigerian regulators.

To reduce the number of operational spills, SPDC is focused on implementing its ongoing work programme to appraise, maintain and replace key sections of pipelines and flow lines. Over the last seven years, approximately 1,300 kilometres of pipelines and flow lines have been replaced. This is managed through a pipeline and flow line integrity management system that proactively manages pipeline integrity, puts barriers in place where necessary, and recommends when and where pipeline sections should be replaced to prevent failures. In 2018, this integrity management system was enhanced to manage integrity threats arising from frequent pipeline sabotage or vandalism.

SPDC continues to undertake initiatives to prevent and minimise spills caused by theft and sabotage of its facilities in the Niger Delta. In 2018, SPDC continued on-ground surveillance efforts on the SPDC joint venture's areas of operation, including its pipeline network, to mitigate incidences of third-party interference and ensure that spills are detected and responded to as quickly as possible. There are also daily overflights of the pipeline network to identify any new spill incidents or illegal activities. SPDC has also implemented anti-theft protection mechanisms on key infrastructure, such as wellheads and manifolds.

Since 2012, SPDC has worked with the International Union for Conservation of Nature to enhance remediation techniques and to protect biodiversity at sites affected by oil spills in SPDC's areas of operation in the Niger Delta. Based on this partnership, SPDC has launched further improvement initiatives to help strengthen its remediation and restoration efforts.

SPDC also works with a range of stakeholders in the Niger Delta to build greater trust in spill response and clean-up processes. Local communities take part in the remediation work for operational spills. In certain instances, some non-governmental organisations have also participated in joint investigation visits along with government regulators, SPDC and impacted communities, to establish the cause and volume of oil spilled.

In addition, SPDC has implemented several initiatives and partnerships to raise awareness on the negative impact of crude oil theft and illegal oil refining. Examples include community-based pipeline surveillance and the promotion of alternative livelihoods through Shell's flagship youth entrepreneurship programme, Shell LiveWIRE.

In 2015, SPDC, on behalf of the SPDC joint venture and the Bodo community, signed a memorandum of understanding (MOU) granting access to SPDC to begin the clean-up of areas affected by two operational spills in 2008. The MOU also provided for the selection of two international contractors to conduct the clean-up and to be overseen by an independent project director. The clean-up project suffered a delay in 2016 and most of 2017 due to access challenges from the community. After engagement with the Bodo community and other stakeholders over two years, beginning in September 2015, and managed by the Bodo Mediation Initiative, the first phase of clean-up and remediation activities started in September 2017. The clean-up consists of three phases: 1) removal of free-phase surface oil, 2) remediation of soil, 3) planting of mangroves and monitoring. The first phase was completed in August 2018 and the contract procurement process for phase two is expected to be finalised in 2019. Should activities continue uninterrupted, phase two (soil remediation) is expected to take approximately two years to complete. However, for it to be successful, there must be no re-contamination of cleaned-up sites from illegal third-party activities, such as crude oil theft and illegal refining.

SPDC remains committed to the implementation of the 2011 United Nations Environmental Programme (UNEP) Report on Ogoniland. Over the last seven years, SPDC has taken action on all the UNEP recommendations addressed to it as operator of the joint venture and has already addressed the majority of these recommendations. Throughout 2018, SPDC representatives continued to actively support the clean-up process within the governance framework established in August 2016 by the Nigerian government to oversee the process. The UNEP report recommended the creation of an Ogoni Trust Fund (OTF) with an initial capital of \$1 billion, to be co-funded by the Nigerian government, the SPDC joint venture and other operators in the area. The SPDC joint venture remains fully committed to contributing its share of \$900 million over five years to the OTF and made available \$10 million in early 2017 to help set up the Hydrocarbon Pollution and Remediation Project (HYPREP), a government-led body to clean up the contaminated sites in Ogoniland and other Niger Delta areas. In July 2018, the SPDC joint venture deposited an additional \$170 million into an escrow account to fund HYPREP's activities, which completes its first-year contribution of \$180 million. HYPREP has issued contract award letters

for phased remediation activities and is aiming for contractors to be in place in early 2019.

## HYDRAULIC FRACTURING

Shale oil and gas continue to play an important role in meeting global energy demand. Over the last decade, we have expanded our onshore oil and gas portfolio using advances in technology to access previously uneconomic tight-oil and tight-gas resources, including those locked in shale formations.

One of the key technologies applied in tight-oil and tight-gas fields is known as hydraulic fracturing, a technique used since the 1950s. It involves pumping fluids that are typically around 99.5% water and sand and around 0.5% chemical additives into tight sand or shale rock at high pressure. This creates thread-like fissures, through which oil and gas can flow.

Shell has developed and publicly shared a set of five global operating principles that govern the onshore shale oil and gas activities where it operates and where hydraulic fracturing is used. The principles cover safety, air quality, water protection and usage, land use and engagement with local communities. We review our Onshore Operating Principles annually and update them as new technologies, challenges and regulatory requirements emerge. We believe we can safely and responsibly explore, develop and produce shale oil and gas using hydraulic fracturing technology. We also support appropriate and fit-for-purpose regulations.

Shell strives to minimise the use of water in its shale operations. Depending on local conditions, we typically use a combination of fresh water, non-potable groundwater, produced water and waste water. We work to reduce and ideally eliminate our freshwater intake. We deploy responsible withdrawal practices when using fresh water. Shell disposes of water safely and in compliance with applicable laws. Flowback water is typically transferred to a disposal facility. Meanwhile, we take produced water to a treatment plant for processing and then reuse it, as much as possible, for additional wells. When recycling is not reasonably practicable, or volumes exceed our operational needs, we may store and treat produced water, share it with other producers, or dispose of it in an environmentally responsible way.

Potable groundwater aquifers are typically isolated from the hydrocarbon-producing shale formations by several thousand feet of impermeable rock. However, we often need to drill though potable groundwater aquifers to reach shale formations. Hence, we design our drilling, hydraulic fracturing and production activities in a way that maintains isolation from potable groundwater aquifers. Before we drill a well, we conduct a hazard assessment to analyse risks to groundwater aquifers, then design and implement control measures. We employ at least two physical barriers, consisting of steel casing and cement, between the wellbore and potable groundwater aquifers. We monitor wellbore integrity before, during and after hydraulic fracturing and during production. Moreover, we routinely test groundwater in our assets.

Since 2015, we have worked to reduce the number of chemical additives in the composition of hydraulic fracturing fluids used in our shale operations. We support full disclosure of the chemical additives used in hydraulic-fracturing fluids for Shell-operated wells, as well as regulations that require suppliers to release information on chemical additives. We have stringent procedures for handling hydraulic-fracturing chemicals.

### **SEISMICITY**

As oil and gas fields mature, seismic activity may increase in certain circumstances based on the unique geology of individual fields. For example, in recent years, public concern about gas production in Groningen province in the Netherlands has grown as a result of an increase in the number of, and energy released by, induced earthquakes in the area (see "Upstream" on page 39). The Groningen field is operated by Nederlandse Aardolie Maatschappij B.V. (NAM, Shell interest 50%) and is one of the largest onshore gas fields in Europe. A range of actions have been taken to improve safety, liveability and economic prospects in the region. NAM is working together with all relevant parties to fulfil commitments to the residents of the area and reinstate governance by the appropriate authorities.

Overall, the likelihood of induced seismicity due to hydraulic fracturing or produced water disposal well operations being felt on the surface is relatively low. However, Shell takes concerns around induced seismicity seriously and proactively manages the risk in accordance with, and sometimes beyond, regulatory requirements. We have added induced seismicity to our Onshore Operating Principles and developed internal guidelines that are applied to our shale assets. The guidelines outline a risk assessment process and provide a framework for risk management. Subsurface and surface conditions vary from basin to basin, which means that management practices need to reflect the risk profile of each basin and provide customised responses to the risks. We are supportive of state and provincial regulations that are fit-for-purpose and science-based.

### **ENVIRONMENTAL COSTS**

We are subject to a variety of environmental laws, regulations and reporting requirements in the countries where we operate. Infringing any of these laws, regulations and requirements could result in significant costs, including clean-up costs, fines, sanctions and third-party claims, as well as harm our reputation and our ability to do business.

Our ongoing operating expenses include the costs of avoiding unauthorised discharges into the air and water, and the safe disposal and handling of waste.

We place a premium on developing effective technologies that are also safe for the environment. However, when operating at the forefront of technology, there is always the possibility that a new technology brings with it environmental impacts that have not been assessed, foreseen or determined to be harmful when originally implemented. While we believe we take all reasonable precautions to limit these risks, we are subject to additional remedial environmental and litigation costs as a result of our operations' unknown and unforeseen impacts on the environment. Although these costs have so far not been material to us, no assurance can be given that this will always be the case.

### **SECURITY**

Our operations expose us to civil unrest, criminality, terrorism, piracy, acts of war, cyber disruption and risks of pandemic diseases that could have a material adverse effect on our business (see "Risk factors" on page 16). We seek to obtain the best possible information to enable us to assess threats and risks. We conduct detailed assessments for all sites and activities, and implement appropriate risk-mitigation measures to detect, deter and respond to security threats. This includes building strong and open relationships with government security agencies, the physical hardening of

sites, journey management, and information risk management. We conduct training and awareness campaigns, including travel advice and medical assistance before travel. The identities of our employees and contract staff and their access to our sites and activities, both physical and logistical, are consistently verified and controlled. We manage and exercise crisis response and management plans.

### **NEIGHBOURING COMMUNITIES**

Earning the trust of local communities is essential to the success of our projects and operations. Our global requirements for social performance aim to ensure that we operate in a responsible way, by avoiding or minimising the negative social impacts of our operations. They also help us maximise the benefits of our activities, such as employment and contractual opportunities that can support local economies.

Specifically, these requirements set clear rules and expectations for how we engage with and respect communities that may be impacted by our operations. We require Shell-operated major projects and facilities to have a social performance plan that defines actions for managing potential negative and positive impacts on the communities where they operate. Integral to these plans is the identification of the social environment, the stakeholders who may be vulnerable to the operations, and an appropriate community feedback mechanism for listening and responding to queries, or resolving complaints, in a timely manner. We have specific requirements in place to avoid, minimise or mitigate potential impacts on indigenous peoples' traditional lifestyles, cultural heritage or involuntary resettlement. More information can be found at <https://www.shell.com/sustainability/communities/working-with-communities.html>.

### **HUMAN RIGHTS**

Respect for human rights is embedded in our Business Principles and in our Code of Conduct. Our approach is informed by the Universal Declaration of Human Rights, the core conventions of the International Labour Organization and the United Nations' Guiding Principles on Business and Human Rights.

We work closely with other companies and non-governmental organisations to continuously improve the way we apply these principles. Our focus is on four key areas where respect for human rights is critical to the way we operate: communities, security, labour rights, and supply chain. We have systems and processes in place for contracting and procurement, recruitment and employment, security and social performance. We require all our companies and our contractors to respect the human rights of our workforce and our neighbouring communities. More information about our approach to human rights can be found at <https://www.shell.com/sustainability/transparency/human-rights.html>.

# Climate change and energy transition

Shell has long recognised that greenhouse gas (GHG) emissions from the use of fossil fuels are contributing to the warming of the climate system. In December 2015, 195 nations adopted the Paris Agreement. We welcomed the efforts made by governments to reach this global climate agreement, which entered into force in November 2016. We fully support the Paris Agreement's goal to keep the rise in global average temperature this century to well below two degrees Celsius ( $2^{\circ}\text{C}$ ) above pre-industrial levels and to pursue efforts to limit the temperature increase even further to  $1.5^{\circ}\text{C}$ . In pursuit of this goal, we also support the vision of a transition towards a net-zero emissions energy system. Shell agrees with the Intergovernmental Panel on Climate Change (IPCC)  $1.5^{\circ}\text{C}$  special report, which states that in order to limit warming to  $1.5^{\circ}\text{C}$  above pre-industrial levels, the world economy would need to transform in a number of complex and connected ways. Meeting this challenge would require an even more rapid escalation in the scale and pace of change in the coming decades than was foreseen in the Paris Agreement.

Society faces a dual challenge: how to transition to a low-carbon energy future to manage the risks of climate change, while also extending the economic and social benefits of energy to everyone on the planet. This is an ambition that requires changes in the way energy is produced, used and made accessible to more people while drastically cutting emissions.

We believe that the need to reduce GHG emissions, which are largely caused by burning fossil fuels, will transform the energy system in this century. This transformation will generate both challenges and opportunities for our existing and future portfolio.

We welcome and support efforts, such as those led by the Task Force on Climate-related Financial Disclosures (TCFD), to increase transparency and to promote investors' understanding of companies' strategies to respond to the risks and opportunities presented by climate change. We believe that companies should be clear about how they plan to be resilient in the energy transition. In 2017, we joined the Oil and Gas Preparer Forum, initiated by the TCFD and convened by the World Business Council for Sustainable Development. The forum's objectives are to review the current state of climate-related financial disclosures, to identify examples of effective disclosure practices and make proposals on how disclosures may evolve over time. The Shell Energy Transition Report published in April 2018 (2018 SET report) described the energy transition and considered Shell's resilience against future scenarios. The 2018 SET report followed our discussions with the TCFD about increasing transparency to help investors understand climate-related risks and opportunities. Our approach to the energy transition as described in the 2018 SET report, in combination with the Shell Sustainability Report (April 2019) aims to complement this Report in responding to TCFD recommendations, including discussing the energy transition and Shell's portfolio resilience.

## OUR GOVERNANCE AND MANAGEMENT OF CLIMATE CHANGE RISKS AND OPPORTUNITIES

Climate change and risks resulting from GHG emissions have been identified as a significant risk factor for Shell and are managed in accordance with other significant risks through the Board and Executive Committee. See "Corporate governance" on pages 103-104.

Shell has a climate change risk management structure in place which is supported by standards, policies and controls.

This includes the work of the Board, which discussed a number of regular agenda items, among them reporting on environmental topics. Throughout 2018, the Board discussed the businesses' Net Carbon Footprint ambition. In addition, some of the Non-executive Directors received dedicated updates from management and external experts on New Energies, the various business models, advantages and disadvantages of having positions along the power value chain, and the opportunities for Shell in the New Energies area. During the annual dedicated strategy meeting, the Board debated the longer-term challenges of the future of mobility and the changing mobility landscape in the context of climate change and energy transition.

The Board committees (see "Corporate governance" on page 100) play an important role in assisting the Board with regard to governance and management of climate change risks and opportunities.

The role of the Corporate and Social Responsibility Committee (CSRC) is to review and advise the Board on Shell's strategy, policies and performance in the areas of safety, environment, ethics and reputation. It regularly discusses the Company's approach to combatting climate change. In 2018, this included the energy transition, GHG emission targets (including advice to the Remuneration Committee), policy on methane, Shell's Net Carbon Footprint and nature-based solutions.

The Remuneration Committee (REMCO) is responsible for determining the Directors' Remuneration Policy in alignment with our business strategy. In 2018, activities for REMCO included setting annual bonus performance measures and targets, for example, by continuing to include GHG intensity metrics in the scorecard following recommendations by the CSRC embedding the energy transition into the Chief Executive Officer (CEO) and Chief Financial Officer's (CFO) personal performance goals, and discussing the incorporation of energy transition measures into long-term incentives. In 2018, Shell took a major step forward in delivering our strategy by announcing plans to link short-term targets to reduce the Net Carbon Footprint of energy products we sell to executive remuneration. In 2019, REMCO decided to include an energy transition condition into the 2019 Long-Term Incentive Plan (LTIP) based on recommendations from CSRC. This condition will include our first three-year target towards achieving our Net Carbon Footprint ambition along with other measures that will help us to achieve our strategic ambitions in the long term, related to growth of Shell's power business, commercialising opportunities in advanced biofuel technology and the development of sinks to capture and store carbon. See "Directors' Remuneration Report" on pages 119-147. The Shell employee scorecard structure for determining employees' annual bonus in 2018 was consistent with the Executive Directors' scorecard. The energy transition condition in the 2019 LTIP will apply to all Senior Executives as well as the Executive Directors.

The Audit Committee has key responsibilities in assisting the Board in fulfilling its oversight responsibilities in relation to areas such as the effectiveness of the system of risk management and internal control. Any concerns regarding improvement needed are promptly reported to the Board.

The CEO is the most senior individual with accountability for climate change risk. We have set up several dedicated climate change and GHG-related forums at different levels of the organisation where climate change issues are addressed, monitored and reviewed, and each Shell subsidiary has

## Climate change and energy transition Continued

operational responsibility for implementing climate change policies and strategies.

A senior manager – the Executive Vice President for Safety and Environment – reporting directly to the Projects & Technology Director is accountable, among other things, for oversight of GHG issues. This manager's department includes the dedicated Group Carbon team, which is accountable for monitoring and examining the strategic implications of climate change for Shell and the impact of developments in governmental policy and regulation. The Group Carbon team is responsible for preparing proposed policy positions based on analysis within Shell and external input. The team also provides advice to Shell companies to ensure consistency in application of our core principles and policy tasks in interactions with policymakers. Reporting to the same manager is the HSSE & SP Assurance and Reporting team, which is accountable for the delivery of Shell's non-financial reporting and for auditing the businesses' performance against our HSSE & SP Control Framework requirements, including climate change risk management. See "Environment and society" on page 66.

Group Carbon also has oversight of Shell's GHG management programme and supports the different lines of business in embedding GHG management strategies. The team includes GHG project managers to advise the largest projects in managing GHG-related topics, from both a risk and an opportunity standpoint. Risk management at an asset or project level is a structured process of identifying and assessing risks, planning and implementing responses, monitoring, improving and closing out action items that have an impact on projects and assets' objectives and performance. Shell policy requires these large projects to obtain formal sign-off on abatement plans and targets.

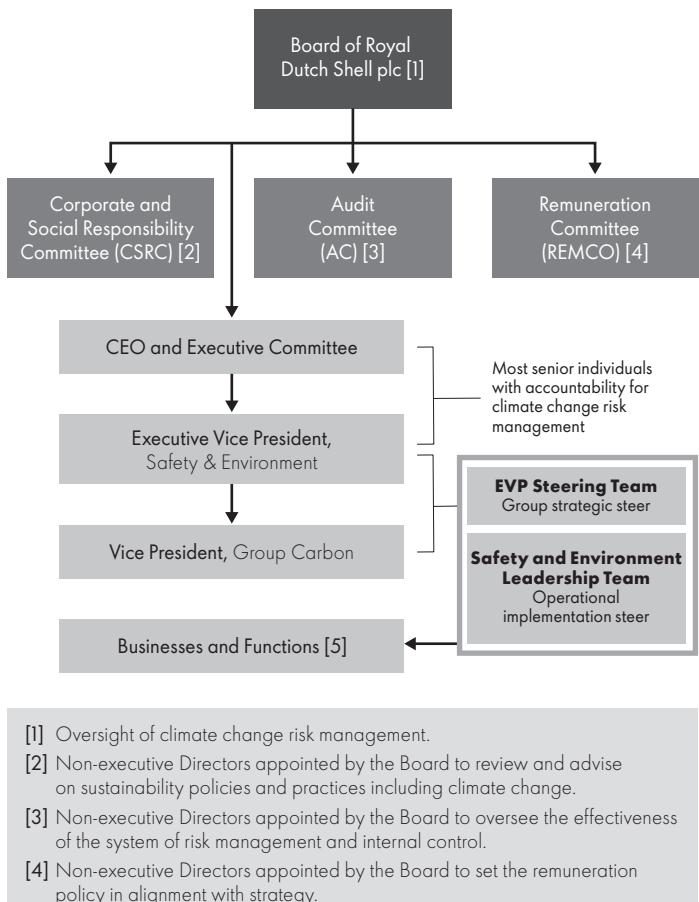
Further support for embedding GHG management is provided by a global risk support team for GHG and energy management. This team is a network of subject-matter experts in GHG topics that works globally and across our lines of business. Team members are experts in their relevant disciplines, defining improvement areas globally and capturing and sharing best practices.

The above-mentioned teams and experts have provided their input to shape a set of mandatory manuals and complementary guidance documents which are ultimately based on our HSSE & SP Control Framework. These documents provide guidance on how to monitor, communicate and report changes in the risk environment, and how to review the effectiveness of actions taken to manage the identified risks, including ways to:

- ensure consistent assessment of climate risk across Shell;
- clarify expectations for risk management and reporting, including roles and responsibilities;
- strengthen decision-making through better visibility and understanding of the climate risk by line of business; and
- enable integration of Shell's reporting.

For more detail on our definition of risk categories and their relationship to different time horizons, see page 75.

### Climate change management organogram



This structured approach supports the prioritisation of risks and opportunities. We actively monitor the GHG footprint of all our assets, as well as our products, to quantify future regulatory costs related to GHG or other climate-related policies. This allows us to effectively prioritise areas of greater concern and assess mitigation options and the most viable responses. Climate-related risks are analysed in context of other identified material risks. See "Risk factors" on pages 15-20.

Our portfolio exposure is reviewed annually against changing GHG regulatory regimes and physical conditions to identify emerging risks. We test the resilience of our portfolio against externally published future pathways, including a low emissions pathway. In 2017, Shell announced a long-term ambition to reduce the Net Carbon Footprint of its energy products. This was followed by an announcement, in December 2018, of our intention to set short-term targets in line with that ambition.

Meeting the Net Carbon Footprint ambition requires evolving our portfolio over the medium to longer term, to reduce the carbon intensity of the products that we sell. We plan for this by developing future aspirated portfolio shapes that would meet our ambition and use these to guide investment decisions. Within the selected portfolio shapes, individual projects are developed to be as resilient to the future scenarios as possible.

To assess the resilience of new projects, we consider the potential costs associated with operational GHG emissions. Consistent with our desire to stay in step with society's progress toward the goals of the Paris Agreement in 2018, we moved away from using a flat project screening value (PSV) of \$40/tonne of GHG emissions, to country-specific estimates of future carbon costs. These estimates were developed using the current Nationally Determined Contributions (NDCs) submitted by countries as part of the Paris Agreement. Accordingly, we believe they more accurately reflect society's current implementation of the Paris Agreement rather than a flat \$40/tonne PSV. By 2050, our estimates for some countries increase to \$85/tonne of GHG emissions.

These are the first NDCs to implement the Paris Agreement and they are scheduled to be revised at regular intervals. Therefore, as countries update their NDCs, we expect to update our estimates as well. The United Nations believes the current NDCs are consistent with limiting the average global temperature rise to around three degrees Celsius above pre-industrial levels. In coming decades, we expect countries to tighten these NDCs in order to meet the goal of the Paris Agreement.

Also, we apply additional sensitivity tests for our high-emitting projects by using long-term carbon cost estimates consistent with limiting the average global temperature rise to well below two degrees Celsius.

In addition, projects in the most GHG-exposed asset classes are benchmarked against GHG intensity targets that reflect standards sufficient to allow them to compete and prosper in a more GHG-constrained future. These processes can lead to projects being stopped, designs being changed, and potential GHG mitigation investments being identified, in preparation for when regulation would make these investments commercially compelling. Our approach continues to evolve and become more sophisticated to reflect our increasing understanding of the shifting policy landscape and the differing pace of energy transitions underway in different regions. .

While monitoring emerging climate change plans, we consider the robustness of our activities against a range of scenarios, as referenced in the 2018 SET report. We believe our business strategy is resilient to the envisaged implementation of the Paris Agreement, which is now progressing through countries' development of individual plans in their NDCs. The emissions of energy consumers from their use of Shell energy products are for a large part covered by these NDCs. The Paris Agreement acknowledges that emissions will continue and even grow in some parts of the world. It does not stipulate that emissions must fall in all sectors or countries simultaneously, or that all actors within the system will reduce their emissions at the same time or to the same degree. What is important is that overall emissions fall.

## OUR PORTFOLIO AND CLIMATE CHANGE

We are seeking cost-effective ways to manage GHG emissions and see potential business opportunities in developing such solutions. We seek to contribute to reducing global GHG emissions in a number of ways:

- supplying more natural gas to replace coal for power generation;
- progressing carbon capture and storage (CCS);
- implementing energy-efficiency measures in our operations where reasonably practicable;
- developing new fuels for transport such as advanced biofuels and hydrogen;

- participating throughout the power value chain with a focus on natural gas and renewable electricity; and
- working with nature-based solutions.

To support this, we continue to advocate the introduction of effective government-led carbon pricing mechanisms.

While we are committed to reducing our GHG intensity, as energy demand increases and easily accessible oil and gas resources decline, we may develop resources that require more energy and advanced technologies to produce. If our production becomes more energy intensive, this could result in an associated increase in direct GHG emissions from our upstream facilities.

Some governments have introduced carbon pricing mechanisms, which we believe can be an effective measure to reduce GHG emissions across the economy at lowest overall cost to society, and we expect more governments to follow. However, we believe measures taken by governments to control national energy transitions may also have unintended consequences when prohibition of one technology may support other substitute technologies that could result in an increase in overall GHG emissions.

See "Risk factors" on page 16.

## NATURAL GAS

According to the IEA, more than 40% of global CO<sub>2</sub> emissions in 2015 came from electricity and heat generation. For many countries, using more gas in power generation instead of coal can make a large contribution, at lower cost, in meeting their GHG emission reduction objectives. We expect that, in combination with renewables and the use of CCS, natural gas will be essential for significantly lowering GHG emissions. Natural gas made up more than half of Shell's proved reserves at the end of 2018. As one of the leaders in liquefied natural gas (LNG), together with our portfolio of conventional gas assets and our technologies for recovering gas from tight-rock formations, we can supply natural gas to replace coal for power generation. Natural gas can also act as a partner for intermittent renewable energy, such as solar and wind, to maintain a steady supply of electricity, because gas-fired plants can start and stop relatively quickly.

Methane is a greenhouse gas. When released into the atmosphere, it has a much higher global warming impact than CO<sub>2</sub>. Natural gas consists mainly of methane. Efforts to address climate change therefore require the industry to reduce both deliberate and unintended methane emissions from the gas value chain, from production to the final consumer.

The IEA estimates that natural gas operations have an average methane leakage rate of 1.7%. At this rate, natural gas emits between 45% and 55% less GHG emissions than coal when burnt at a power plant, but higher levels of methane emissions would reduce this benefit. We recognise the importance of reducing methane emissions. Methane from the flaring and venting of gas (including equipment venting) in our upstream oil and gas operations was the largest contributor to our reported methane emissions in 2018. We are working to reduce methane emissions from these sources by reducing the overall level of flaring and venting. In addition, we continue to implement leak detection and repair programmes across our sites to identify unintended losses and high-emission equipment, such as high-bleed pneumatic devices, so they can be replaced or repaired. We continue to work on confirming that we have identified all potential methane sources and that we have reported our

## Climate change and energy transition Continued

emissions from these sources in line with regulations and industry standards. In 2017, we joined the Climate and Clean Air Coalition Oil & Gas Methane Partnership. It brings together industry, governments and non-governmental organisations to improve quantification of methane emissions globally and work towards reducing them. In November 2017, Shell – along with seven other energy companies – signed guiding principles for reducing methane emissions across the natural gas value chain. The principles focus on: continually reducing methane emissions; advancing strong performance across gas value chains; improving accuracy of methane emissions data; advocating sound policies and regulations on methane emissions; and increasing transparency. In 2018, we succeeded in encouraging a further 10 companies to sign up to them.

In September 2018, Shell announced a target to maintain Shell's methane emissions intensity below 0.20% by 2025. This target covers all Upstream and Integrated Gas oil and gas assets for which Shell is the operator. The intensity baseline and target are presented as percentage figures, which represent the estimated amount of methane emissions for Shell's operated gas and oil assets as a percentage of the amount of the total gas marketed or, for those assets that have no marketed gas, the amount of marketed oil and condensate (e.g. assets that re-inject produced gas). Methane emissions include those from unintentional leaks, venting and incomplete combustion, for example in flares and turbines. In 2018, our overall methane intensity was 0.08% for assets with marketed gas and 0.01% for assets without marketed gas. Asset level intensities ranged from below 0.01% to 0.9%. Our methane emissions are calculated using the best methods currently available: a combination of industry standard emission factors (established emissions rates per throughput or per piece of equipment), engineering calculations and some actual measurements. There are uncertainties associated with methane emissions quantification. To reduce these uncertainties, our Upstream and Integrated Gas businesses are rolling out methane improvement programmes that focus on further improving data quality and reporting, and on continued implementation of leak detection and repair programmes and methane abatement opportunities. By 2025, all Shell-operated assets are expected to have implemented more robust quantification methodologies. Externally, we continue to work on new technologies and improved quantification methods through partnerships and several other initiatives.

Shell is also a member of the Oil and Gas Climate Initiative (OGCI), a CEO-led initiative to lead the industry's response to climate change. One of OGCI's focus areas is methane management. In September 2018, OGCI announced a target to reduce the collective average methane intensity of its members' aggregated upstream gas and oil operations by one fifth to below 0.25% by 2025, with an ambition to achieve 0.20%, corresponding to a reduction of one third.

Detailed information on our approach to managing methane emissions and performance will be published in the Shell Sustainability Report in April 2019.

### CARBON CAPTURE AND STORAGE

CCS is a technology used for capturing CO<sub>2</sub> before it is emitted into the atmosphere, then transporting it by pipelines or ships and injecting it into a deep geological formation for permanent storage. In the IPCC Global Warming of 1.5°C special report, the middle-of-the-road scenario (P3) shows cumulative abatement provided by CCS of 687 billion tonnes of CO<sub>2</sub> by 2100, compared with 230 million tonnes of man-made CO<sub>2</sub> that has been injected to date, according to the Global CCS Institute (*Global Status of CCS 2018* report). In November 2015, we launched our Quest CCS project in Canada (Shell interest 10%), which has captured and safely stored more than 3 million tonnes of CO<sub>2</sub> since it began operating. We are involved in a

CO<sub>2</sub> capture test centre in Mongstad, Norway, the Northern Lights CCS project for capturing and storing industrial CO<sub>2</sub>, also in Norway, and the development of the Gorgon CO<sub>2</sub> injection project in Australia, which is due to start up in 2019. We also have technology that can remove both CO<sub>2</sub> and sulphur dioxide from industrial flue gases. It is being used at Boundary Dam, a third-party coal-fired power plant in Canada.

### ENERGY EFFICIENCY

We continue to work on improving energy efficiency at our oil and gas production facilities, refineries and chemical plants. Measures include our GHG and energy management programme that focuses on the efficient operation of existing equipment. This means, for example, using monitoring systems which give us real-time information that we can use to make energy-saving changes and identify opportunities for energy-saving investments in the medium term. Shell's scorecard incorporates GHG metrics that help create additional incentives for all our employees to reduce GHG emissions in our portfolio. Also see "Directors' Remuneration Report" on page 133.

### NEW ENERGIES

Our New Energies business explores emerging opportunities linked to the energy transition and invests in those where we believe sufficient value is available. New Energies is an emerging opportunity, in which we plan to invest on average \$1.2 billion a year until 2020 as we look for commercial investments that build on our strengths in new and fast-growing segments of the energy industry. We focus on new fuels for transport, such as advanced biofuels, hydrogen and charging for battery-electric vehicles; and power, including from low-carbon sources such as wind and solar as well as natural gas. Alongside our work in new fuels and power, we are exploring how digital technologies can best support our activities and customers. See "Integrated Gas" on page 33.

#### New fuels

We invest in a range of low-carbon technologies and fuels, including hydrogen and battery-electric vehicle charging. We believe that hydrogen has the potential to be an important low-carbon transport fuel. We are involved in several initiatives to encourage the adoption of hydrogen-electric energy. See "Integrated Gas" on page 33.

#### Biofuels

We believe that low-carbon biofuels will continue to play a valuable part in reducing CO<sub>2</sub> emissions in the transport sector in the coming decades. The international market for biofuels has grown over the past decade, driven largely by the introduction of new energy policies in Europe and the USA that call for more renewable, lower-carbon fuels for transport. They represent approximately 4% of global transport fuels today.

In 2018, we used around 9.5 billion litres of biofuel in our gasoline and diesel blends worldwide to comply with applicable mandates and targets in the markets where we operate. Through our own long-established sustainability clauses in supply contracts, we request that the biofuels we buy are produced in a way that is environmentally and socially responsible across the life cycle of the production chain.

From cultivation to use, some biofuels emit significantly less CO<sub>2</sub> compared with conventional gasoline. But this depends on several factors, such as how the feedstock is cultivated and the way biofuels are produced. Other challenges include concerns over land competing with food crops, labour rights, and the water used in the production process.

Where possible, we source biofuels that have been certified against internationally recognised sustainability standards. Shell supports the adoption of international sustainability standards, including the Round Table on Responsible Soy, the Roundtable for Sustainable Palm Oil, and Bonsucro, a non-profit organisation for sugar cane. We also support the Roundtable for Sustainable Biomaterials and the International Sustainability and Carbon Certification scheme, both of which can be used for any feedstocks. We also continue to work with industry, governments and voluntary organisations towards the development and adoption of internationally recognised sustainability standards for biofuels.

Our Raízen joint venture (Shell interest 50%) in Brazil has produced low-carbon biofuel from sugar cane since 2011. Through our Raízen joint venture, we produce one of the lowest CO<sub>2</sub> biofuels available today. Raízen produces approximately 2 billion litres of ethanol from sugar cane annually. Brazilian sugar-cane ethanol can reduce CO<sub>2</sub> emissions by around 70% when compared with conventional gasoline, from cultivation of the sugar cane to using the ethanol as fuel.

In 2015, Raízen opened its first advanced biofuels plant at the Costa Pinto mill in Brazil. The technology was first developed from our funding of the Iogen Energy venture, which was subsequently transferred to Raízen. In 2018, the plant produced 15.5 million litres of cellulosic ethanol from sugar-cane residues. It is expected to produce 40 million litres a year once fully operational.

Outside Brazil, we continue to invest in new ways of producing biofuels from sustainable feedstocks, such as biofuels made from waste products or cellulosic biomass. In 2017, we completed construction of a demonstration plant at the Shell Technology Centre Bangalore, India. The plant demonstrates a technology called IH2® that turns waste feedstock into transport fuel. The plant can process around five tonnes per day of feedstock, such as agricultural waste, and aims to demonstrate the technology for possible scaling up and commercialisation.

We continue to look for opportunities to invest in third-party technologies and to collaborate in scaling these up for commercialisation. In 2018, we announced our support, together with British Airways, for a project led by Velocys to install a waste-to-renewable jet fuel plant in the UK. If installed, a plant would use post-recycled waste, destined for landfill or incineration, and convert it into cleaner-burning, sustainable fuels.

In line with our strategy of developing more sustainable feedstocks for transport, we are also investing in renewable natural gas (RNG) for use in natural-gas fuelled vehicles, in the USA and in Europe. RNG is collected from landfill sites, food waste or manure and then processed until it is fully interchangeable with conventional natural gas. The use of RNG in natural-gas vehicles, either in the form of compressed natural gas (CNG) or LNG, offers customers already using these vehicles an attractive alternative for lowering their CO<sub>2</sub> footprint.

In the USA, in August 2018, we announced plans to expand and upgrade the JC Biomethane plant in Junction City, Oregon, which we acquired in May 2018. This will increase the facility's capacity to produce RNG from agricultural waste, through a process called anaerobic digestion.

## Power

Power is the fastest-growing segment of the energy system. We expect that people and companies around the world will use more electricity to power

transport and industry, instead of coal and oil, as part of the drive to lower carbon emissions. To help meet this demand, Shell aims to become an integrated power player and grow, over time, a material new business. We are working to deliver more electricity generated by renewable energy, from developing wind and solar projects to selling electricity generated by renewable sources. See "Integrated Gas" on page 33.

## NATURE-BASED SOLUTIONS

We believe that nature will play an important role in the transition to a lower-carbon world. Using nature to capture carbon from the atmosphere presents an immediate opportunity. It can help to bridge the gap until other low-carbon solutions are deployed at scale, or to compensate for emissions which cannot be avoided. Nature-based solutions are expected to be one of Shell's tools to reduce the Net Carbon Footprint of our energy products by around half by the middle of the century. Nature-based projects typically involve the protection or redevelopment of natural ecosystems such as forests and wetlands, allowing those ecosystems to capture and store more carbon on our behalf. These projects, which also support local communities and conserve biodiversity, generate carbon-emission rights that then can be bought by energy consumers around the world.

## OUR STRATEGY ON CLIMATE CHANGE

Our strategy to assess and manage risks and opportunities resulting from climate change includes consideration of different time horizons and specific risks:

- societal risk: the potential for a deteriorating relationship with the public, other companies, and governments in countries where Shell operates;
- commercial risk: the potential for structural shifts in demand profiles for industry products;
- regulatory risk: the potential for strengthening of existing and introduction of new regulations; and
- physical risk: the potential impact on our facilities and the communities in which we operate due to changing physical conditions.

This is how we describe the different time horizons and the relevance for the identification of risks and business planning:

- Short term (up to three years): detailed financial projections are developed and used to manage performance and expectations on a three-year cycle. This three-year plan is shared with the Board;
- Medium term (three years up to around 10 years): the majority of production and earnings expected to be generated in this period come from our existing assets; and
- Long term (beyond around 10 years): for this period, the current Shell portfolio is not representative of our future performance or the potential risks. Decision making and risk identification on the thematic structure of the future portfolio are guided by associated emerging questions.

Shell has a rigorous approach to understanding, managing and mitigating climate risks to its facilities. Shell also requires each business and function to monitor, communicate and report changes in the risk environment and the effectiveness of actions taken to manage identified risks on an ongoing basis. This is outlined in a toolkit for risk management including our Risk Management Manual and complementary guidance documents that cover specific aspects such as climate risk.

Each Shell business unit needs to consider the acceptability of climate-related risks in their portfolios. To ensure that informed judgements are made, businesses' senior managers present their current assessments of the

## Climate change and energy transition Continued

likelihood of the climate-related risks discussed above materialising and their potential impact, along with summaries of current mitigation efforts under way within their business unit. Each risk is then categorised as either acceptable or as needing improvement.

We aim to reduce the GHG intensity of our portfolio and we continue to work on improving the energy efficiency of our existing operations. In addition, and as a better way to inform and drive our investment choices and adapt our business over time, in November 2017 we announced our ambition to reduce the Net Carbon Footprint of our energy products in step with society's drive to reduce GHG emissions. We aim to reduce the Net Carbon Footprint of the energy products we sell – expressed in grams of CO<sub>2</sub> equivalent per megajoule consumed – by around half by 2050. As an interim step, by 2035, and predicated on societal progress, we aim for a reduction of around 20% compared with our 2016 level. Our approach to calculating the Net Carbon Footprint covers emissions directly from Shell operations (including from the extraction, transportation and processing of raw materials, and transportation of products), those generated by third parties who supply energy to us for production, and our customers' emissions from their use of our energy products. Also included are emissions

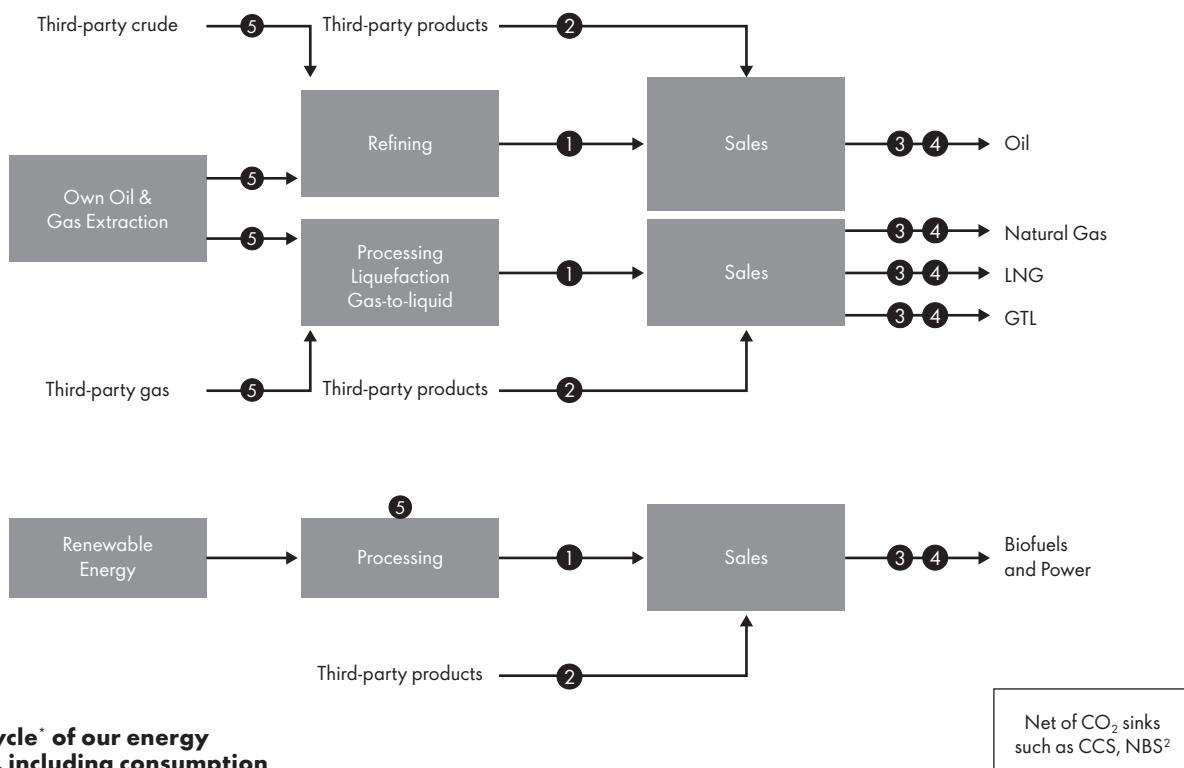
from elements of this life cycle not owned by Shell, such as oil and gas processed by Shell but not produced by Shell, or from oil products and electricity marketed by Shell that have not been processed or generated at a Shell facility. The calculation also includes biofuels, as well as emissions that we offset by using CCS or natural carbon sinks, such as forests and wetlands. Chemicals and lubricants products, which are not used to produce energy, are excluded from the scope of this ambition.

When selecting our Net Carbon Footprint ambition, we have purposefully chosen a wide and meaningful frame against which to manage our performance. The calculation of the Net Carbon Footprint includes not only emissions from our own operations and those from third parties in parts of our supply chains that produce and bring energy to the market but also emissions of our customers from the use of the energy products we sell to them. The emissions from our operations are important but those of our customers from their use of the energy products are much larger in proportion.

The diagram below illustrates the scope of the Net Carbon Footprint calculation:

### Scope of our Net Carbon Footprint

Emissions from energy products included within the Net Carbon Footprint framework.



### Full life cycle<sup>1</sup> of our energy products, including consumption

- ① Emissions from bringing own products to market
- ② Emissions from bringing third-party products to market
- ③ Emissions from use of own products
- ④ Emissions from use of third-party products
- ⑤ Emissions from use of own products

<sup>1</sup> The 'life cycle' calculation tracks the energy molecules end-to-end but does not include emissions associated with construction or decommissioning of facilities.  
<sup>2</sup> Nature Based Solutions.

To meet the decarbonisation goals of the Paris Agreement, society needs an increasing supply of energy products that produce lower or zero GHG emissions over their full life cycle, to use those products more efficiently and to store emissions that cannot be avoided in sinks. Within this framework, our strategy is to keep increasing the share of such low-carbon energy products in our portfolio, while also developing carbon sinks. By broadening our focus to the full life-cycle emissions from the energy products that we sell to our customers, instead of solely on our operational emissions, we believe we will be better aligned with societal need and growing customer demand for more energy with lower life-cycle GHG emissions. Therefore, our strategy is to reduce our Net Carbon Footprint, mainly by increasing the proportion of lower-carbon products such as natural gas, biofuels, electricity and hydrogen in the mix of products we sell to our customers.

We will publish annual updates on our progress towards lowering the Net Carbon Footprint of our energy products. See the Shell Sustainability Report to be published in April 2019 for more information.

Our long-term ambition is to reduce the Net Carbon Footprint of our energy products to be in line with that of society as a whole by 2050, a stretching aspiration that aims to ensure that Shell continues to develop a resilient and relevant portfolio over the coming decades. While this is a long-term aspiration that will need periodic recalibration in line with the pace of change in broader society and the wider energy system, it is intended to help ensure that we remain relevant and are competitively positioned in the energy transition. This means supplying energy products and services that our customers need, now and in the future, and developing a resilient portfolio in line with our purpose of providing more and cleaner energy to society.

In the period to 2035, we believe that all forms of GHG reduction measures must be accelerated and increased in scale by society. Major improvements in energy efficiency and new sources of energy, such as renewables, combined with the use of cleaner fossil fuels, such as replacing coal with natural gas, are needed to meet the growing global population's energy needs while reducing GHG emissions. In addition, the world will need significant growth in CCS and sustained reductions in demand. Massive reforestation is also needed to limit temperature rises to 1.5°C. The management of GHG emissions is increasingly important to our shareholders as concerns over climate change lead to tighter environmental regulations. Policies and regulations designed to limit the increase in global temperatures to well below 2°C could have a material adverse effect on Shell - through higher operating costs and reduced demand for some of our products. We actively monitor and assess these potential developments and are best able to manage them when local policies provide a stable and predictable regulatory foundation for our future investments. At this stage, industry is still facing significant uncertainty about how local regulatory policies and consumer behaviour will shape the evolution of the energy system and which technologies and business models will thrive.

In December 2018, we announced our intention to set short-term Net Carbon Footprint targets. Early 2019, it was decided to set a Net Carbon Footprint target for 2021 of 2-3% lower than our 2016 Net Carbon Footprint of 79 grams of CO<sub>2</sub> equivalent per megajoule. While we have received third-party limited assurance on our 2016 Net Carbon Footprint, we are currently re-evaluating our assurance processes to ensure that we will be able to obtain third-party assurance in parallel with the projected timing of our future Net Carbon Footprint disclosures.

## OUR PERFORMANCE

Data in this section are reported on a 100% basis in respect of activities where we are the operator. Reporting on this operational control basis differs from that applied for financial reporting purposes in the "Consolidated Financial Statements" on pages 167-214. Detailed data and information on our 2018 environmental and social performance will be published in the Shell Sustainability Report in April 2019.

Our direct GHG emissions decreased from 73 million tonnes of CO<sub>2</sub> equivalent in 2017 to 71 million tonnes of CO<sub>2</sub> equivalent in 2018. The main contributors to this decrease were divestments (for example in Argentina, Canada, Gabon, Iraq, Malaysia and the UK). The level of flaring in our Upstream and Integrated Gas businesses combined decreased by more than 35%, compared to 2017, primarily as a result of the Majnoon divestment in Iraq. These decreases were partly offset by inclusion of the assets previously operated by the Motiva Enterprises LLC joint venture in our data for the full year in 2018, increased production at our Pearl gas-to-liquids (GTL) plant in Qatar and the start-up of our Prelude floating liquefied natural gas asset in Australia.

In 2015, we signed up to the World Bank's "Zero Routine Flaring by 2030" initiative. This is an important initiative to ensure that all stakeholders, including governments and companies, work together to address routine flaring. Flaring, or burning off, of gas in our Upstream and Integrated Gas businesses contributed around 7% of our overall direct GHG emissions in 2018. More than 40% of this flaring took place at facilities where there was no infrastructure to capture the gas produced with oil, known as associated gas.

Our involvement in Basrah Gas Company (BGC), a non-Shell-operated joint venture between Shell, South Gas Company and Mitsubishi Corporation in the south of Iraq, continues to reduce flaring in the country. It is the largest gas company in Iraq's history and the world's largest flaring reduction project. BGC captures associated gas that would otherwise be flared from three non-Shell-operated oil fields in southern Iraq (Rumaila, West Qurna 1 and Zubair). The gathered gas is processed into dry gas, liquefied petroleum gas (LPG) and condensate. Dry gas is supplied to the gas network in southern Iraq and then used to generate electricity. LPG and condensate are delivered to South Gas Company for distribution in the domestic market and excess production is exported. In 2018, BGC processed an average of 800 million standard cubic feet of gas per day.

Around 35% of flaring in our Upstream and Integrated Gas facilities in 2018 took place in assets operated by The Shell Petroleum Development Company of Nigeria Limited (SPDC). Flaring from SPDC-operated facilities fell by more than 50% between 2014 and 2018. Flaring intensity levels in SPDC decreased in 2018 compared with 2017, partly due to improved compressor availability and facility outages in the Western Delta. SPDC continues to make progress in close collaboration with its joint venture partners and the Federal Government of Nigeria towards the objective of ending the continuous flaring of associated gas. Two new gas-gathering projects (Adibawa and Otumara) came on stream at the end of 2017 and two more (the Forcados Yoker Integrated Project and Southern Swamp Associated Gas Gathering Solutions) are expected to be completed in 2019.

## Climate change and energy transition Continued

GHG emissions data are provided below in accordance with UK regulations. GHG emissions comprise CO<sub>2</sub>, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride. The data are calculated using locally regulated methods where they exist. Where there is no locally regulated method, the data are calculated using the 2009 API Compendium, which is the recognised industry standard under the GHG Protocol Corporate Accounting and Reporting Standard. There are inherent limitations to the accuracy of such data. Oil and gas industry guidelines (IPIECA/API/IOGP) indicate that a number of sources of uncertainty can contribute to the overall uncertainty of a corporate emissions inventory.

### Greenhouse gas emissions

	2018	2017
Emissions (million tonnes of CO <sub>2</sub> equivalent)		
Direct [A]	71	73
Energy indirect [B]	11	12
Intensity ratio (tonne/tonne)		
All facilities [C]	0.24	0.25

[A] Emissions from the combustion of fuel and the operation of facilities, calculated using global warming potentials from the IPCC's *Fourth Assessment Report*.

[B] Emissions from the purchase of electricity, heat, steam and cooling for our own use, calculated using a market-based method as defined by the GHG Protocol Corporate Accounting and Reporting Standard.

[C] In tonnes of total direct and energy indirect GHG emissions per tonne of crude oil and feedstocks processed and petrochemicals produced in Downstream manufacturing, oil and gas available for sale, LNG and GTL production in Integrated Gas and Upstream. Additional information by segment will be published on [www.shell.com/ghg](http://www.shell.com/ghg).

Detailed information on our 2018 GHG emissions will be published in the Shell Sustainability Report in April 2019 and on [www.shell.com/ghg](http://www.shell.com/ghg).

The statements in this "Climate change and energy transition" section, including those related to Net Carbon Footprint, are forward-looking statements based on management's current expectations and certain material assumptions and, accordingly, involve risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied herein. See "About this Report" on pages 05-06 and "Risk factors" on page 15-20.

# Our people

Performing competitively in the evolving energy landscape requires competent and empowered people working safely together across Shell. We recruit, train and recompense people according to a strategy that aims to organise our businesses effectively. We accelerate development of our people; grow and strengthen our leadership capabilities; and enhance employee performance through strong engagement. Our people are essential to the successful delivery of the Shell strategy and to sustaining business performance over the long term.

## EMPLOYEE OVERVIEW

The employee numbers presented here are the full-time equivalent number of people employed by Shell on a full- or part-time basis, working in Shell subsidiaries, Shell-operated joint operations, non-Shell-operated joint operations, or seconded to joint ventures and associates.

At December 31, 2018, there were 81,000 Shell employees, compared with 83,000 at December 31, 2017, and 91,000 at December 31, 2016. The reduction in 2018 was driven by portfolio activities and our continued effort to improve operational efficiency and to reduce costs. These changes were partly offset by the insourcing of specific skill sets into the organisation (predominantly in IT) and other external recruitment to build our talent pipeline. We continue to leverage and expand capabilities to ensure a sustainable talent pool.

During 2018, we employed an average of 82,000 people, shown by geographical area in the table below and by business segment in Note 26 to the "Consolidated Financial Statements" on page 213.

**Average number of employees  
by geographical area**

	Thousand		
	2018	2017 [A]	2016 [A]
Europe	24	25	26
Asia	28	28	28
Oceania	2	2	2
Africa	4	5	6
North America	21	24	29
South America	2	2	4
Total	82	86	95

[A] As revised, to align with the current year definition.

## EMPLOYEE COMMUNICATION AND INVOLVEMENT

We strive to maintain a healthy employee and industrial relations environment in which dialogue between management and our employees – both directly and, where appropriate, through employee representative bodies – is embedded in our work practices. On a regular basis, management engages with our employees through a range of formal and informal channels, including emails from the Chief Executive Officer, webcasts, townhalls, team meetings, face-to-face gatherings, breakfast briefings, interviews, helplines and online publications via our intranet. For further information on stakeholder engagement, see the Corporate governance section on pages 98-99.

Strong employee engagement is especially important in maintaining strong business delivery in times of change. The annual Shell People Survey is one of the principal tools used to measure employee engagement, motivation, affiliation and commitment to Shell. It provides insights into employees'

views and has had a consistently high response rate. In 2018, the response rate was 82%, which was an increase of 2% compared with 2017, and the average employee engagement score was 77 points out of 100, which was an increase of one point compared with 2017.

We promote safe reporting of views about our processes and practices. In addition to local channels, the Shell Global Helpline enables our people and third parties to report potential breaches of the Shell General Business Principles and Shell Code of Conduct, confidentially and anonymously, in a variety of languages. Shell Internal Audit (SIA) is the custodian of the Shell Global Helpline process in Shell, which is managed by an independent third party. SIA is accountable for ensuring that the Shell Global Helpline functions as intended and that all allegations of Code of Conduct breaches (including bribery and corruption) are investigated and followed up on as appropriate. The Board has formally delegated the responsibility for reviewing the functioning of the Shell Global Helpline, and the reports arising from its operation, to the Audit Committee. The Audit Committee is also authorised to ensure that arrangements are in place for the proportionate and independent investigation of reported matters and for follow-up action.

## DIVERSITY AND INCLUSION

Our intention is to sustain a diverse workforce and an inclusive environment that respects and shows care for all our people and helps improve our business performance. Our diversity and inclusion (D&I) approach focuses on talent acquisition, progression, retention, leadership visibility, and on inclusive culture. Our leaders aim to be role models for D&I and assume accountability for continuous progress. We believe that diverse teams led by inclusive leaders are more engaged, and therefore deliver better safety and business performance. By embedding D&I into our operations, we have a better understanding of the needs of our people as well as the needs of our varied customers, partners and stakeholders throughout the world. It also allows us to benefit from a wider external talent pool for recruitment purposes.

We provide equal opportunity in recruitment, career development, promotion, training and rewards for all our people, including those with disabilities. In 2018, we introduced our workplace accessibility service, which currently serves 62 locations globally. This service ensures that all employees have access to reasonable adjustments so that they can work effectively and productively. In addition, we implemented a global minimum standard for maternity leave of 16 weeks.

Our focus on workplace inclusion also continues in other areas. For example, in 2018, we were recognised as one of the top three organisations in the Workplace Pride global lesbian, gay, bisexual, transgender and intersexed (LGBTI) inclusive workplace benchmark and earned a 100% score in the Human Rights Campaign Foundation's Corporate Equality Index. In addition, the 2018 Hampton Alexander Review ranked Shell first out of the Financial Times Stock Exchange (FTSE) 350 Oil & Gas Industry index companies and seventh out of the FTSE 100 Top 10 Best Performers. We actively monitor representation of women and local nationals in senior leadership positions and have talent-development processes to support us in mitigating any biases and delivering a more diverse representation.

## Our people Continued

In 2018, 46% of our graduate recruits were female. At the end of 2018, the proportion of women in senior leadership positions was 24% compared with 22% at the end of 2017. "Senior leadership positions" is a Shell measure based on senior salary group levels and is distinct from the term "senior manager" in the statutory disclosures set out below.

Gender diversity data (at December 31, 2018)		Number	
		Men	Women
Directors of the Company	6	55%	5
Senior managers [A]	701	73%	264
Employees (thousand)	56	69%	25
			31%

[A] Senior manager is defined in section 414C(9) of the Companies Act 2006 and, accordingly, the number disclosed comprises the Executive Committee members who were not Directors of the Company, as well as other directors of Shell subsidiaries.

The local national coverage is the number of senior local nationals (both those working in their respective base country and those expatriated) as a percentage of the number of senior leadership positions in their base country.

### Local national coverage (at December 31)

	Number of selected key business countries		
	2018	2017	2016
Greater than 80%	10	10	10
Less than 80%	10	10	10
Total	20	20	20

### CODE OF CONDUCT

In line with the UN Global Compact Principle 10 (Businesses should work against corruption in all its forms, including extortion and bribery), we maintain a global anti-bribery and corruption/anti-money laundering (ABC/AML) programme designed to prevent or detect, and remediate and learn from, potential violations. The programme is underpinned by our commitment to prohibit bribery, money laundering and tax evasion, and to our Shell General Business Principles and Code of Conduct.

We do not tolerate the direct or indirect offer, payment, solicitation or acceptance of bribes in any form. Facilitation payments are also bribes and are prohibited. The Shell Code of Conduct includes specific guidance for Shell staff (which comprises employees and contract staff) on requirements to avoid or declare actual, potential or perceived conflicts of interest, and on offering or accepting gifts and hospitality.

Communications from leaders emphasise both the importance of these commitments and compliance with requirements. These are reinforced with both global and targeted communications to ensure that Shell staff are frequently reminded of their obligations. Supporting the Code of Conduct, we have mandatory risk-based procedures and controls that address a range of compliance risks and ensure we focus resources, reporting and attention appropriately. By making a commitment to our core values – honesty, integrity and respect – and following the Code of Conduct, we protect Shell's reputation.

In 2018, we introduced mandatory ethical leadership workshops for senior executives across our global operations, to reinforce and explore the level of commitment to ethics and compliance expected of leaders at this level.

The workshops focus on values, behaviours, business pressures and leadership practices. The workshops are part of our wider work to cultivate a strong corporate culture where impeccable ethics are a matter of personal pride for every employee, rather than only a compliance issue.

As part of our commitment to ethics and compliance, we ensure that our policies, standards and procedures are communicated to Shell employees and contract staff and, where necessary and appropriate, to agents and business partners. Particular areas of focus with third parties include our due diligence procedures, and clearly articulated requirements (for example, through the use of standard contract clauses). In addition, we publish our Ethics and Compliance Manual on shell.com to demonstrate our commitment in this area.

The Shell Ethics and Compliance Office assists the businesses and functions with the ABC/AML and other programme implementation, and monitors and reports on progress. Legal counsel provides legal advice globally and supports the programme's implementation. The Shell Ethics and Compliance Office regularly reviews and revises the ABC/AML and other programmes to ensure they remain up to date with applicable laws, regulations and best practices. This includes incorporating results from relevant internal audits, reviews and investigations.

We have a duty to investigate all good faith allegations of breaches of the Code of Conduct, however they are raised. We are committed to ensuring all such incidents are investigated by specialists in accordance with our Investigation Principles. Violation of the Code of Conduct or its policies can result in disciplinary action, up to and including contract termination or dismissal. In some cases, we may report a violation to the relevant authorities, which could lead to legal action, fines or imprisonment.

Internal investigations confirmed 370 substantiated breaches of the Code of Conduct in 2018. As a result, we dismissed or terminated the contracts of a total of 92 employees and contract staff.

### EMPLOYEE SHARE PLANS

We have a number of share plans designed to align employees' interests with our performance through share ownership. For information on the share-based compensation plans for Executive Directors, see the "Directors' Remuneration Report" on pages 119-147.

### PERFORMANCE SHARE PLAN, LONG-TERM INCENTIVE PLAN AND EXCHANGED AWARDS UNDER THE BG LONG-TERM INCENTIVE PLAN

Conditional awards of the Company's shares are made under the terms of the Performance Share Plan (PSP) to around 16,000 employees each year. Senior executives receive conditional awards of the Company's shares under the terms of the Long-term Incentive Plan (LTIP) rather than under the terms of the PSP. The extent to which the awards vest under both plans is determined over a three-year performance period, but the performance conditions applicable to each plan are different. Under the PSP, 50% of the award is linked to certain of the indicators described in "Performance indicators" on pages 27-28, averaged over the period. From 2017 onwards, 12.5% of the award is linked to free cash flow (FCF) and the remaining 37.5% is linked to a comparative performance condition which involves a comparison with four of our main competitors over the period, based on three measures. Under the LTIP, from 2017, 25% of the award is linked to the FCF measure and the remaining 75% is linked to the

comparative performance condition mentioned above. Prior to 2017, 50% of the PSP award and all of the LTIP award were linked to a comparative performance condition based on four measures.

Separately, following the BG acquisition, certain employee share awards made in 2015 under BG's Long-Term Incentive Plan were automatically exchanged for equivalent awards over shares in the Company. These awards either do not have performance conditions or have the same performance conditions applied as the Company's LTIP. Awards take the form of either conditional awards or nil cost options.

Under all plans, all shares that vest are increased by an amount equal to the notional dividends accrued on those shares during the period from the award date to the vesting date. In certain circumstances, awards may be adjusted before delivery or reclaimed after delivery. None of the awards results in beneficial ownership until the shares vest.

See Note 21 to the "Consolidated Financial Statements" on page 208.

#### **RESTRICTED SHARE PLAN**

Under the Restricted Share Plan, awards are made on a highly selective basis to senior staff. Shares are awarded subject to a three-year retention period. All shares that vest are increased by an amount equal to the notional dividends accrued on those shares during the period from the award date to the vesting date. In certain circumstances, awards may be adjusted before delivery or reclaimed after delivery.

#### **GLOBAL EMPLOYEE SHARE PURCHASE PLAN**

Eligible employees in participating countries may participate in the Global Employee Share Purchase Plan. This plan enables them to make contributions from net pay towards the purchase of the Company's shares at a 15% discount to the market price, either at the start or at the end of an annual cycle, whichever date offers the lower market price.

#### **UK SHELL ALL EMPLOYEE SHARE OWNERSHIP PLAN**

Eligible employees of participating Shell companies in the UK may participate in the Shell All Employee Share Ownership Plan, under which monthly contributions from gross pay are made towards the purchase of the Company's shares. For every six shares purchased by the employee, an additional free matching share is provided.

#### **UK SHARESAVE SCHEME**

Eligible employees of participating Shell companies in the UK have been able to participate in the UK Sharesave Scheme. Options have been granted over the Company's shares at market value on the invitation date. These options are normally exercisable after completion of a three-year or five-year contractual savings period. No further grants will be made under this plan.

Separately, following the acquisition of BG, certain participants in the BG Sharesave Scheme chose to roll over their outstanding BG share options into options over the Company's shares. The BG option price (at a discount of 20% to market value) was converted into an equivalent Company option price at a ratio agreed with Her Majesty's Revenue and Customs. These options are normally exercisable after completion of a three-year contractual savings period.

Strategic Report signed on behalf of the Board

/s/ Linda M. Szymanski

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Linda M. Szymanski

Company Secretary

March 13, 2019

# Governance

## The Board of Royal Dutch Shell plc

### CHARLES O. HOLLIDAY

Chair

#### Tenure

Chair – Four years (appointed Chair May 19, 2015)  
On Board – 8.5 years (appointed September 1, 2010)  
(see page 98 for further information)

#### Board Committee membership

Chair of the Nomination and Succession Committee

#### Outside interests/commitments

Presiding Director of HCA Holdings, Inc. Director of Deere & Company.  
Member of the Critical Resource's Senior Advisory Panel. Member of the  
Royal Academy of Engineering.

#### Age 71

Nationality US citizen

#### Career

Charles (Chad) Holliday was appointed Chair of the Board of Royal Dutch Shell plc with effect from May 19, 2015.

He was Chief Executive Officer of DuPont from 1998 to 2009, and Chairman from 1999 to 2009. He joined DuPont in 1970 after receiving a B.S. in industrial engineering from the University of Tennessee and held various manufacturing and business assignments, including a six-year Tokyo-based posting as President of DuPont Asia/Pacific.

He has previously served as Chairman of the Bank of America Corporation, The Business Council, Catalyst, the National Academy of Engineering, the Society of Chemical Industry – American Section and the World Business Council for Sustainable Development. He is a founding member of the International Business Council.

#### Relevant skills and experience

Chad has a distinguished track record as an international businessman. He was originally appointed to the Board as a Non-executive Director in September 2010 and, prior to his May 2015 appointment as Chair of the Board, served as Chair of the Corporate and Social Responsibility Committee and Member of the Remuneration Committee.

He has a deep understanding of international strategic, commercial and environmental issues, and gained extensive experience in the areas of safety and risk management during his time with DuPont. During his time as Chair, he has been committed to developing and maintaining a strong dialogue with investors and other key stakeholders and has ensured that their views are considered during Board discussions and decision-making. He has also demonstrated a strong commitment to ensuring that the highest standards of corporate governance, safety, ethics and compliance are maintained. Chad is a particularly avid advocate of greater diversity, which is reflected in the Board's current diversity mix and increased diversity goals across the Shell Group.

Chad's performance has been evaluated by the other Directors, led by Gerard Kleisterlee, Deputy Chair and Senior Independent Director.

### GERARD KLEISTERLEE

Deputy Chair and Senior Independent Director

#### Tenure

8.5 years (appointed November 1, 2010)

#### Board Committee membership

Chair of the Remuneration Committee and member of the Nomination and Succession Committee

#### Outside interests/commitments

Chairman of Vodafone Group plc, Chairman of the Supervisory Board of ASML Holding N.V.

#### Age 72

Nationality Dutch

#### Career

Gerard was President/Chief Executive Officer and Chairman of the Board of Management of Koninklijke Philips N.V. from 2001 to 2011. Having joined Philips in 1974, he held several positions before being appointed as Chief Executive Officer of Philips' Components division in 1999 and Executive Vice-President of Philips in 2000.

He was a member of the board of Directors of Dell Inc. from 2010 to 2013 and, a member of the Supervisory Board of Daimler AG from 2009 to 2014. From 2014 to 2016, he was a Non-executive Director of IBEX Global Solutions plc.

#### Relevant skills and experience

Gerard is a Dutch businessman with a distinguished career with one of the largest electronics companies in the world. Through a variety of senior roles, he was responsible for operations in places such as Europe, Taiwan, China and Hong Kong. Gerard is also currently Chair of Vodafone, one of the UK's largest global companies, which provides services to more than 500 million customers.

Gerard's business experience provides him with a broad and deep understanding of the geopolitical, strategic and commercial challenges an evolving business faces. His experience – gained at Philips, Dell and Vodafone, businesses that have seen significant changes in technology and consumer behaviour – is a great asset to the Board as Shell transitions to a lower-carbon energy system.

Gerard is a seasoned leader, making him ideally suited to his position as our Senior Independent Director, Deputy Chair and Chair of our Remuneration Committee. He raises the bar on the level of Board debate, with his insightful, concise and direct questions.

**BEN VAN BEURDEN**  
Chief Executive Officer**Tenure**

Five years (appointed January 1, 2014)

**Board Committee membership**  
N/A**Outside interests/commitments**  
No external appointments**Age**  
60**Nationality**  
Dutch**Career**

Ben was Downstream Director from January to September 2013. Before that, he was Executive Vice President Chemicals from 2006 to 2012. In this period, he also served on the boards of a number of leading industry associations, including the International Council of Chemicals Associations and the European Chemical Industry Council. Prior to this, he held a number of operational and commercial roles in both Upstream and Downstream, including Vice President Manufacturing Excellence. He joined Shell in 1983, after graduating with a Master's Degree in Chemical Engineering from Delft University of Technology, the Netherlands.

**Relevant skills and experience**

Ben has over 35 years of Shell experience and has built a deep industry understanding and proven management experience across the technical and commercial roles which he has undertaken over his career.

Since 2016, Ben has led Shell to deliver strong financial results, total shareholder returns and earnings per share. Ben has also led Shell through ending the scrip dividend and the start of a \$25 billion share buyback programme. Under his leadership Shell New Energies has been established and Shell has announced industry-leading initiatives in response to the global challenge of the energy transition to a lower-carbon future, including the introduction of Shell's Net Carbon Footprint ambition. Shell is now at the forefront of a cross-industry push to reduce the greenhouse gas impact of natural gas with the Methane Guiding Principles.

Ben has led the Company to complete the acquisition of BG Group and fully integrate it into our operations, executed an impressive reshaping of our portfolio and completed a divestment programme of \$30 billion of non-core assets, making the Shell Group simpler.

**JESSICA UHL**  
Chief Financial Officer**Tenure**

Two years (appointed March 9, 2017)

**Board Committee membership**  
N/A**Outside interests/commitments**  
No external appointments**Age**  
51**Nationality**  
US citizen**Career**

Jessica was Executive Vice President Finance for the Integrated Gas business from January 2016 to March 2017. Previously, she was Executive Vice President Finance for Upstream Americas from 2014 to 2015, Vice President Finance for Upstream Americas Unconventionals from 2013 to 2014, Vice President Controller for Upstream and Projects & Technology from 2010 to 2012, Vice President Finance for the global Lubricants business from 2009 to 2010, and Head of External Reporting from 2007 to 2009. She joined Shell in 2004 in finance and business development, supporting the Renewables business.

Prior to joining Shell, Jessica worked for Enron in the USA and Panama from 1997 to 2003 and for Citibank in San Francisco, USA from 1990 to 1996. She obtained an MBA at INSEAD in 1997.

**Relevant skills and experience**

Jessica is a highly regarded executive with a track record of delivering key business objectives, from cost leadership in complex operations to M&A delivery. Jessica's extensive experience combines an external perspective with 15 years of Shell experience: she has held finance leadership roles in Europe and the USA, in Shell's Upstream, Integrated Gas and Downstream businesses, as well as in Projects & Technology.

Jessica's tenure as CFO has also been impressive. She was appointed not long after the BG acquisition, when Shell's debt, gearing and development costs were high and when the oil price was still recovering from the lower levels in 2016. In these challenging conditions, but with great enthusiasm, clarity and discipline, Jessica has been a leading force in delivering on the financial promises Shell had made to its shareholders, and with great success. In 2018 Shell delivered \$39 billion in free cash flow (\$28 billion in 2017). This made it possible for Shell to decrease its net debt and gearing and increase shareholder distributions, following the removal of the scrip dividend, and the start of the share buyback programme.

## The Board of Royal Dutch Shell plc Continued

### ANN GODBEHERE

Non-executive Director

#### Tenure

10 months (appointed May 23, 2018)

#### Board Committee membership

Member of the Audit Committee

#### Outside interests/commitments

Non-executive Director of UBS AG and UBS Group AG since 2009 and 2014[A], respectively, and Rio Tinto plc and Rio Tinto Limited since 2010[B]. Senior Independent Director of Rio Tinto plc, Fellow of the Institute of Chartered Professional Accountants and a Fellow of the Certified General Accountants Association of Canada.

[A] On February 25, 2019, UBS AG and UBS Group AG announced that Ann would not seek re-election at their Annual General Meeting on May 2, 2019, after serving 10 years on the Board.

[B] On February 27, 2019, Rio Tinto plc and Rio Tinto Limited announced that Ann would not seek re-election at their Annual General Meeting on April 10, 2019, after serving 9 years on the Board.

#### Age

63

#### Nationality

Canadian and British

#### Career

Ann started her career with Sun Life of Canada in 1976 in Montreal, Canada and joined M&G Group in 1981 where she served as Senior Vice President and Controller for both life and health and property and casualty businesses throughout North America. She joined Swiss Re in 1996 and served as Chief Financial Officer from 2003 to 2007. From 2008 to 2009, she was interim Chief Financial Officer and an Executive Director of Northern Rock bank in the initial period following its nationalisation.

She served as a Non-executive Director of Prudential plc from 2007 to 2017 and British American Tobacco plc from 2011 to 2018.

#### Relevant skills and experience

Ann is a former CFO, a Fellow at the Institute of Chartered Accountants, and has more than 25 years of experience in the financial services sector. She has worked her entire career in international business and has lived in or served on boards in nine countries. Although still in her first year with Shell, she has been adding exceptional value by bringing both her experience and new perspective to the Board.

Ann's highly relevant skills, particularly in investment appraisal and financial risk management, are a welcome addition to our Board and Audit Committee. Her long international business career brings with it an invaluable global perspective and understanding, which is reflected in the insights and constructive challenges she brings to the boardroom.

As part of her induction, Ann visited our Middle East and US Upstream operations. These visits, combined with Ann's unquenchable thirst for knowledge, greatly increased her understanding of Shell's businesses, further strengthening the valuable contributions she had already been making to the Board. More information on these visits can be found under Induction and Training within this Report.

### EULEEN GOH

Non-executive Director

#### Tenure

4.5 years (appointed September 1, 2014)

#### Board Committee membership

Chair of the Audit Committee

#### Outside interests/commitments

Chairman of SATS Limited. Non-executive Director of CapitaLand Limited, DBS Bank Limited, DBS Group Holdings Limited and Temasek Trustees Pte Limited [A]. Trustee of the Singapore Institute of International Affairs Endowment Fund. Chairman of the Governing Council of the Singapore Institute of Management and Non-executive Director of Singapore Health Services Pte Limited, both of which are not-for-profit organisations.

[A] On April 1, 2019, Euleen is retiring from the Board of Temasek Trustees Pte Ltd.

#### Age

63

#### Nationality

Singaporean

#### Career

Euleen is an Associate of the Institute of Chartered Accountants in England and Wales, a Fellow of the Singapore Institute of Chartered Accountants and has professional qualifications in banking and taxation. She held various senior management positions within Standard Chartered Bank and was Chief Executive Officer of Standard Chartered Bank, Singapore, from 2001 until 2006.

She has also held non-executive appointments on various boards including Aviva plc, MediaCorp Pte Limited, Singapore Airlines Limited, Singapore Exchange Limited, Standard Chartered Bank Malaysia Berhad and Standard Chartered Bank Thai plc. She was previously Non-executive Chairman of the Singapore International Foundation and Chairman of International Enterprise Singapore and the Accounting Standards Council, Singapore.

#### Relevant skills and experience

Euleen's current roles as Chair or Board Director of various international companies provide significant experience in the area of strategy development and international businesses. She is a champion of diversity and constructively challenges the Board and management to constantly raise the bar in this area.

Being based in Singapore and as Chair of the Risk Committee of the largest bank in South East Asia, Euleen is close to key emerging/growth markets for our business. Euleen's risk management expertise has elevated the Board's deep deliberations around risk governance. Her extensive travel around the world, through her various executive and non-executive roles, has equipped her with broad geopolitical insight and significant knowledge of operating in the Asian region.

Euleen leverages her great approachability and financial acumen to pose probing and insightful questions, both in and beyond the boardroom. This provides a strong foundation for her role as Chair of our Audit Committee and contributes to well-rounded and incisive Board discussions.

**CATHERINE J. HUGHES**

Non-executive Director

**Tenure**

1.5 years (appointed June 1, 2017)

**Board Committee membership**

Member of the Corporate and Social Responsibility Committee and member of the Remuneration Committee

**Outside interests/commitments**

Non-executive Director of SNC-Lavalin Group Inc.

**Age**

56

**Nationality**

Canadian and French

**Career**

Catherine was Executive Vice President International at Nexen Inc., from January 2012 until her retirement in April 2013, where she was responsible for all oil and gas activities including exploration, production, development and project activities outside Canada. She joined Nexen in 2009 as Vice President Operational Services, Technology and Human Resources.

Prior to joining Nexen Inc., she was Vice President Oil Sands at Husky Oil from 2007 to 2009 and Vice President Exploration & Production Services, from 2005 to 2007. She started her career with Schlumberger in 1986 and held key positions in various countries, including Italy, Nigeria, the UK, the USA and France, and was President of Schlumberger Canada Limited for five years. She was a Non-executive Director of Statoil from 2013 to 2015.

**Relevant skills and experience**

Catherine contributes her industry knowledge and ease of engagement with other Directors and managers in the boardroom. With her 30 years of oil and gas sector experience, she brings a geopolitical outlook and deep understanding of the industry. An engineer by training, she has also spent a significant part of her career working in senior human resources roles. The Board highly regards her perspectives on our industry and our most important asset, our people.

Catherine has a strong track record of executing operational discipline with a focus on performance metrics and a continual drive for excellence. Her knowledge of the technology underpinning oil and gas operations, logistics, procurement and supply chains benefits the Board greatly as it considers various projects and investment or divestment proposals.

She also leverages her industry knowledge – combined with her commitment to the highest standards of corporate governance and safety, ethics and compliance – in her membership of our Corporate and Social Responsibility Committee, while leveraging her human resources experience in her membership on the Remuneration Committee.

**ROBERTO SETUBAL**

Non-executive Director

**Tenure**

1.5 years (appointed October 1, 2017)

**Board Committee membership**

Member of the Audit Committee

**Outside interests/commitments**

Member of the board of International Monetary Conference (IMC), the Economic and Social Development Council of the Presidency of Brazil, and the International Business Council of the World Economic Forum. He is also President of the Fundação Itaú Social and a Member of the Executive Committee of the Instituto Itaú Cultural.

**Age**

64

**Nationality**

Brazilian

**Career**

Roberto was Chief Executive Officer and Vice Chairman of the Board of Directors of Itaú Unibanco Holding S.A. in São Paulo, Brazil, until April 2017. At that time, he retired as Chief Executive Officer and currently serves as Co-Chairman of the Board of Directors. Following a brief period with Citibank in New York, he joined Banco Itaú in 1984 where he held a variety of senior roles in investment banking, consumer credit operations and retail banking before being appointed Chief Executive Officer in 1994. Following the merger of Banco Itaú and Unibanco, he was appointed to the position of President and Chief Executive Officer of Itaú Unibanco Holding S.A. Previously, he was a Non-executive Director of Petrobras S.A., President of the IMC and Vice-Chairman of the IIF.

**Relevant skills and experience**

Roberto brings significant experience in capital markets and financial services to the Board and has a deep understanding of international strategic management, commercial operations and risk management. He was instrumental in designing and then executing a strategy that led to Itaú becoming the largest bank in Brazil.

His deep financial knowledge enables him to make robust, demanding and constructive challenges to our investment considerations and helps to ensure that projects are aligned with our strategic intent.

Despite spending most of his life in Brazil, Roberto has a strong understanding of global business. Naturally, he also brings an invaluable perspective and insight into operating in his native country, a key growth market for Shell. His contributions also demonstrate his strong advocacy for the highest standards of corporate governance, ethics and compliance. This, combined with his experience of operating in challenging markets, helps to deepen the Board's analyses of difficult matters with multi-faceted risks.

## The Board of Royal Dutch Shell plc Continued

### SIR NIGEL SHEINWALD GCMG

Non-executive Director

#### Tenure

6.5 years (appointed July 1, 2012)

#### Board Committee membership

Chair of the Corporate and Social Responsibility Committee and member of the Remuneration Committee

#### Outside interests/commitments

Non-executive Director of Invesco Limited and Raytheon UK. Senior Adviser to Tanium Inc. and to the Universal Music Group. Visiting Professor and Council Member of King's College, London.

#### Age

65

#### Nationality

British

#### Career

Sir Nigel was a senior British diplomat who served as British Ambassador to the USA from 2007 to 2012, before retiring from the Diplomatic Service. Prior to this, he served as Foreign Policy and Defence Adviser to the Prime Minister and as British Ambassador and Permanent Representative to the European Union in Brussels. He joined the Diplomatic Service in 1976 and served in Brussels, Washington, Moscow and in a wide range of policy roles in London. Since 2012, he has taken on a number of international business roles, and supported organisations involved in higher education and international affairs.

#### Relevant skills and experience

Sir Nigel's distinguished track record including three of the most senior international roles in British public service has given him broad geopolitical and public policy experience, as well as knowledge of regulatory issues, communications and stakeholder management. He has a global and strategic outlook which enables him to identify emerging issues that could present geopolitical or reputational challenges.

Sir Nigel brings a unique government policy perspective to our strategic discussions particularly on topics such as the energy transition, which are strongly influenced by the views of governments and a complex range of interested parties. His many contributions to the Board on this and other strategic and operational topics often reflect the interconnections between geopolitics, business and external stakeholder engagement.

He is used to operating in challenging environments and is committed to active external engagement. This, and his understanding of public policy and regulatory issues through his career in government service and membership of think tank and university boards, makes him well suited to the role of Chair of our Corporate and Social Responsibility Committee.

### LINDA G. STUNTZ

Non-executive Director

#### Tenure

7.5 years (appointed June 1, 2011)

#### Board Committee membership

Member of the Corporate and Social Responsibility Committee and member of the Nomination and Succession Committee

#### Outside interests/commitments

Director of Edison International

#### Age

64

#### Nationality

US citizen

#### Career

Linda is a founding partner of the law firm of Stuntz, Davis & Staffier, P.C., which is based in Washington, DC[A]. Her law practice included energy and environmental regulation, as well as matters relating to government support of technology development and transfer. She was a member of the US Secretary of Energy Advisory Board from 2015 to 2017, she chaired the Electricity Advisory Council of the US Department of Energy from 2008 to 2009 and was a member of the board of Directors of Schlumberger Limited from 1993 to 2010 and Raytheon Company from 2004 to 2015.

From 1989 to 1993, she held senior policy positions at the US Department of Energy, including Deputy Secretary.

[A] Linda retired from Stuntz, Davis & Staffier, P.C in January 2019.

#### Relevant skills and experience

Linda's Harvard legal training and deep practical legal experience bring unique and valuable expertise in energy-industry and environmental law, as well as extensive public policy experience, to our Board. This is conveyed through her in-depth knowledge of the gas and power industries and her work on issues related to climate change and energy-related measures to minimise greenhouse gas emissions.

As a board director of publicly traded companies for more than 25 years, Linda has provided strategic and legal advice to many energy companies and has substantial experience in overseeing and working with businesses with operations around the world. She has a broad understanding of technology and its development/commercialisation within our industry, from her work with the US government and on the Schlumberger board. She has significant knowledge and understanding of cyber risks as a result of her Raytheon and Edison International board service.

Linda's unique background, coupled with her exceptional ability to frame clear questions that tackle the key points of complex issues, helps deepen the Board's constructive challenges and considerations of critical industry-related matters, particularly those related to the energy transition.

**GERRIT ZALM****Non-executive Director****Tenure**

Six years (appointed January 1, 2013)

**Board Committee membership**

Member of the Audit Committee and member of the Remuneration Committee

**Outside interests/commitments**

Director of Moody's Corporation in April 2018

**Age**

66

**Nationality**

Dutch

**Career**

Gerrit was an adviser to PricewaterhouseCoopers during 2007, Chairman of the trustees of the International Accounting Standards Board from 2007 to 2010, and an adviser to Permira from 2007 to 2008. He was Chief Economist of DSB Bank from July 2007 to January 2008, Chief Financial Officer from January 2008 to December 2008, and Chairman of the Managing Board of ABN AMRO Bank N.V. from 2010 to 2016. He was Minister of Finance of the Netherlands, twice, from 1994 to 2002 and from 2003 to 2007. In between, he was Chairman of the parliamentary party of the VVD.

Prior to 1994, he was head of the Netherlands Bureau for Economic Policy Analysis, a professor at Vrije Universiteit Amsterdam and held various positions at the Ministry of Finance and the Ministry of Economic Affairs. He studied General Economics at Vrije Universiteit Amsterdam and received an Honorary Doctorate in Economics from that university.

**Relevant skills and experience**

An economist by background, Gerrit's distinguished twelve-year service as the Minister of Finance to the Netherlands, coupled with his experience gained from his time with ABN AMRO Bank, brings deep and valuable understanding of Dutch politics and financial markets to the Board. His international financial management expertise and strategic development experience also benefits the Audit Committee.

A highly regarded and seasoned leader in both the public and private spheres, his significant experience in analysing financial commitments from both a wider public stakeholder and global business standpoint serves the Board well, particularly when considering investment proposals. Gerrit consistently and concisely articulates the logic and reasoning behind his views, benefitting both the Board and management. His questions often trigger other analytical questions from fellow Directors, which serves to deepen and widen Board discussions.

**LINDA M. SZYMANSKI****Company Secretary****Tenure**

Two years (appointed January 1, 2017)

**Age**

51

**Nationality**

US citizen

**Career**

Linda was General Counsel of the Upstream Americas business and Head of Legal US, based in the USA, from 2014 to 2016. Previously, she was Group Chief Ethics & Compliance Officer based in the Netherlands from 2011 to 2014. Since joining Shell in 1995, she has also held a variety of legal positions in the Shell Oil Company in the USA, including Chemicals Legal Managing Counsel and other senior roles in employment, litigation, and commercial practice.

**Relevant skills and experience**

Linda is our Corporate Secretary and also plays an important role as Shell's General Counsel Corporate, overseeing corporate legal teams in the Netherlands, UK, Switzerland, the USA and Canada.

The various legal roles Linda has undertaken at our headquarters, and in supporting both the Upstream and Downstream businesses, have provided her with a strong understanding of our global operations and people. Her experience of engaging with the Board in previous roles, coupled with her broad understanding and engagement across Shell's businesses and functions, helps to ensure that the right matters come to the Board at the right time.

## The Board of Royal Dutch Shell plc Continued

### BOARD DIVERSITY

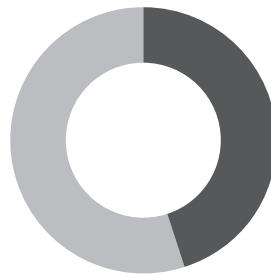
**Non-executive Director tenure**



**Director nationality**



**Gender diversity**



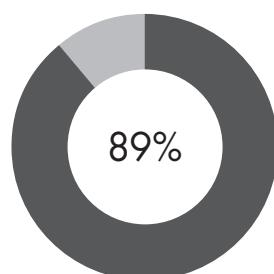
■ 0 to 3 years  
■ 4 to 6 years  
■ 7 to 9 years

■ British 9%  
■ Dutch 27%  
■ American 27%  
■ Canadian 18%  
■ Brazilian 9%  
■ Singaporean 9%

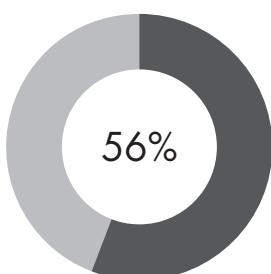
■ Female  
■ Male

**Non-executive Director sector experience**

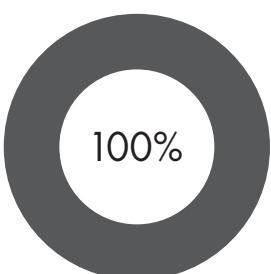
Regulatory/Government affairs/Public policy



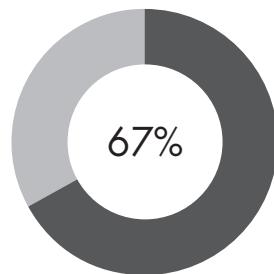
Oil & gas/Extractives/Energy



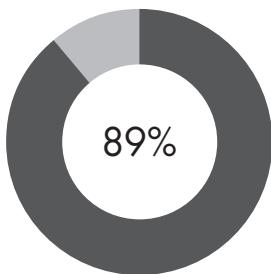
Strategy development



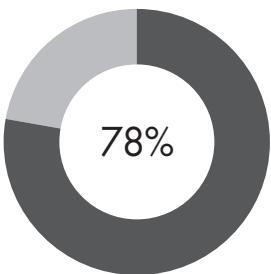
Engineering/Industrial



Consumer/Marketing



Accounting and Finance



# Senior Management

The Senior Management of the Company comprises the Executive Directors and those listed below. All are members of the Executive Committee (see "Corporate governance" on page 101).

## JOHN ABBOTT

Downstream Director

### Tenure

Five years (appointed October 2013)

### Age

58

### Nationality

British

### Career

John was previously Executive Vice President Manufacturing, responsible for oil refineries and petrochemicals plants worldwide. He joined Shell in 1981, and has held various management positions in refining, chemicals and upstream heavy oil, working in Canada, the Netherlands, Singapore, Thailand, the UK and the USA.

On April 13, 2018, John was elected as a Non-executive Director of Fiat Chrysler Automobiles N.V.

## HARRY BREKELMANS

Projects & Technology Director

### Tenure

Four years (appointed October 2014)

### Age

53

### Nationality

Dutch

### Career

Harry was previously Executive Vice President for Upstream International Operated based in the Netherlands. He joined Shell in 1990 and has held various management positions in Exploration and Production, Internal Audit, and Group Strategy and Planning. From 2011 to 2013, he was Country Chair - Russia and Executive Vice President for Russia and the Caspian region.

## ANDREW BROWN [A]

Upstream Director

### Tenure

Six years (appointed January 2016 (Upstream International Director from 2012 to 2016))

### Age

57

### Nationality

British

### Career

Andrew was previously Executive Vice President for Shell's activities in Qatar and a member of the Upstream International Leadership Team. He was awarded the Order of the British Empire in 2012 for his services to British-Qatari business relations.

[A] On January 17, 2019, the Company announced that Andrew Brown will step down from the role of Upstream director on June 30, 2019 and will be replaced with Wael Sawan. Andy will remain available to Wael and the Executive Committee to assist with transition until September 30, 2019, and will then leave the company after 35 years' distinguished service.

## RONAN CASSIDY

Chief Human Resources & Corporate Officer

### Tenure

Three years (appointed January 2016)

### Age

52

### Nationality

British

### Career

Ronan was previously Executive Vice President Human Resources, Upstream International. He joined Shell in 1988 and has held various human resources positions in Upstream and Downstream.

## **Senior Management** Continued

### **DONNY CHING**

Legal Director

#### **Tenure**

Five years (appointed February 2014)

#### **Age**

54

#### **Nationality**

Malaysian

#### **Career**

Donny was previously General Counsel for Projects & Technology based in the Netherlands. He joined Shell in 1988 based in Australia and then moved to Hong Kong and later to London. In 2008, he was appointed Head of Legal at Shell Singapore, having served as Associate General Counsel for Gas & Power in Asia-Pacific.

### **WAEL SAWAN**

Upstream Director

#### **Tenure**

Appointed with effect from July 2019

#### **Age**

44

#### **Nationality**

Canadian

#### **Career**

Wael is currently Executive Vice President Deep water and a member of the Upstream leadership team. He joined Shell in 1997 and has worked in Retail and various commercial and New Business Development projects. Wael has worked in Europe, Africa, Asia and the Americas.

### **MAARTEN WETSELAAR**

Integrated Gas and New Energies Director

#### **Tenure**

Three years (appointed January 2016)

#### **Age**

50

#### **Nationality**

Dutch

#### **Career**

Maarten was previously Executive Vice President of Integrated Gas based in Singapore. He joined Shell in 1995 and has held various financial, commercial and general management roles in Downstream, Trading and Upstream.

# Directors' Report

## MANAGEMENT REPORT

This Directors' Report, together with the "Strategic Report" on pages 07-81, serves as the Management Report for the purpose of Disclosure Guidance and Transparency Rule 4.1.8R.

## FINANCIAL STATEMENTS AND DIVIDENDS

The "Consolidated Statement of Income" and "Consolidated Balance Sheet" can be found on pages 168-169 respectively.

The table below sets out the dividends on each class of share and each class of American Depository Share (ADS [A]). The Company announces its dividends in dollars and, at a later date, announces the euro and sterling equivalent amounts using a market exchange rate. Dividends on Royal Dutch Shell plc A shares (A shares) are paid by default in euros, although holders may elect to receive dividends in sterling. Dividends on Royal Dutch Shell plc B shares (B shares) are paid by default in sterling, although holders may elect to receive dividends in euros. Dividends on ADSs are paid in dollars.

[A] ADSs are listed on the New York Stock Exchange under the symbols RDS.A and RDS.B. Each ADS represents two shares – two A shares in the case of RDS.A or two B shares in the case of RDS.B.

The Directors have announced a fourth-quarter interim dividend as set out in the table below, payable on March 25, 2019, to shareholders on the Register of Members at close of business on February 15, 2019. The closing date for dividend currency elections was March 1, 2019 [A] and the euro and sterling equivalents announcement date was March 11, 2019.

[A] A different dividend currency election date may apply to shareholders holding shares in a securities account with a bank or financial institution ultimately through Euroclear Nederland. This may also apply to other shareholders who do not hold their shares either directly on the Register of Members or in the corporate sponsored nominee arrangement. Such shareholders can contact their broker, financial intermediary, bank or financial institution for the election deadline that applies.

## DIRECTORS' RESPONSIBILITIES IN RESPECT OF THE PREPARATION OF THE ANNUAL REPORT AND ACCOUNTS

The Directors are responsible for preparing the Annual Report, including the financial statements, in accordance with applicable laws and regulations. These require the Directors to prepare financial statements for each financial year. As such, the Directors have prepared the Consolidated and Parent Company Financial Statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU). In preparing these financial statements, the Directors have also elected to comply

with IFRS as issued by the International Accounting Standards Board (IASB). The Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of Shell and the Company and of the profit or loss of Shell and the Company for that period. In preparing these financial statements, the Directors are required to:

- adopt the going concern basis unless it is inappropriate to do so;
- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent; and
- state whether IFRS as adopted by the EU and IFRS as issued by the IASB have been followed.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the transactions of Shell and the Company and disclose with reasonable accuracy, at any time, the financial position of Shell and the Company and to enable them to ensure that the financial statements comply with the Companies Act 2006 (the Act) and, as regards the Consolidated Financial Statements, with Article 4 of the IAS Regulation and therefore are in accordance with IFRS as adopted by the EU. The Directors are also responsible for safeguarding the assets of Shell and the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Each of the Directors, whose names and functions can be found on pages 82-87, confirms that, to the best of their knowledge:

- the financial statements, which have been prepared in accordance with IFRS as adopted by the EU and with IFRS as issued by the IASB give a true and fair view of the assets, liabilities, financial position and profit of Shell and the Company; and
- the Management Report includes a fair review of the development and performance of the business and the position of Shell, together with a description of the principal risks and uncertainties that it faces.

Furthermore, so far as each of the Directors is aware, there is no relevant audit information of which the auditors are unaware, and each of the Directors has taken all the steps that ought to have been taken in order to become aware of any relevant audit information and to establish that the auditors are aware of that information.

## Dividends

	2018							
	\$	€	pence	\$	pence	€	A ADSs	B ADSs
Q1	0.47	0.4011	35.18	0.47	35.18	0.4011	0.94	0.94
Q2	0.47	0.4048	36.50	0.47	36.50	0.4048	0.94	0.94
Q3	0.47	0.4124	36.77	0.47	36.77	0.4124	0.94	0.94
Q4	0.47	0.4181	35.94	0.47	35.94	0.4181	0.94	0.94
Total announced in respect of the year	1.88	1.6364	144.39	1.88	144.39	1.6364	3.76	3.76
Amount paid during the year		1.6001	142.36		142.36	1.6001	3.76	3.76

[A] It is expected that holders of B shares will receive dividends through the dividend access mechanism applicable to such shares. The dividend access mechanism is described more fully on pages 243-245.

The Directors consider that the Annual Report, including the financial statements, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess Shell's position and performance, business model and strategy.

The Directors consider it appropriate to continue to adopt the going concern basis of accounting in preparing the financial statements.

The Directors are responsible for the maintenance and integrity of the Shell website ([www.shell.com](http://www.shell.com)). Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

### VIABILITY STATEMENT

The "Strategic Report" includes information about Shell's strategy, financial condition, cash flows and liquidity, as well as the factors, including the principal risks, likely to affect Shell's future development. "Business overview" on page 12 describes Shell's business model, including competitive advantages and key strengths. The Directors assess Shell's prospects both at an operating and strategic level, each involving different time horizons. To this end, the Directors assess Shell's portfolio and strategy against a wide range of outlooks, including assessing the potential impacts of various possible energy transition pathways and scenarios for changes in societal expectations in relation to climate change. Shell recognises in its strategy that the world is transitioning to a lower-carbon energy system (see "Climate change and energy transition" on pages 71-78). The Risk Factors section on pages 15-20 provides an overview of the principal risks Shell is exposed to in its operations.

On an annual basis, the Directors approve a detailed three-year operating plan, which forecasts Shell's cash flows and ability to service financing requirements, pay dividends and fund investing activities during the period. Shell's three-year operating plan includes assumptions in relation to internal and external parameters. Some of the key assumptions include the impact of commodity prices, exchange rates and schedules of growth programmes. Considering the degree of change possible in these parameters, Shell has deemed a three-year period of assessment appropriate for the longer-term viability statement.

In making the viability assessment, Shell has also considered the financial impact of each of the following severe but possible scenarios that could threaten Shell's viability. In reviewing these stress tests, the Directors have considered possible mitigation steps and have made certain assumptions regarding the availability of future funding options, including the ability to raise future financing in line with the operating plan window.

Scenario	Link to principal risks
A significant HSSE event	[A]
A low oil and gas price environment with \$40/b Brent (2018 real terms)	[B]
A significant HSSE event in a low oil and gas price environment	[A] and [B]
Sustained impact from politically adverse developments, lower growth in developing countries, as well as lower growth in Europe	[B] and [C]
Unplanned shut down of a major cashgenerating asset for a year	[A]

[A] The nature of our operations exposes us, and the communities in which we work, to a wide range of health, safety, security and environment risks.

[B] We are exposed to fluctuating prices of crude oil, natural gas, oil products and chemicals.

[C] We are exposed to treasury and trading risks, including liquidity risk, interest rate risk, foreign exchange risk, commodity price risk and credit risk. We are affected by the global macroeconomic environment as well as financial and commodity market conditions.

Taking account of Shell's position and principal risks at December 31, 2018, the Directors have a reasonable expectation that Shell will be able to continue in operation and meet its liabilities as they fall due over its three-year operating plan period.

### NON-FINANCIAL INFORMATION STATEMENT

The Non-Financial Information Statement below forms part of the Strategic Report on pages 07-81.

#### Non-Financial Information Statement

REPORTING REQUIREMENT	WHERE TO READ MORE IN THIS REPORT	PAGE
<b>Business model</b>	Business overview	<b>12-14</b>
<b>Non-financial KPIs</b>	Performance indicators	<b>28</b>
<b>Environmental matters</b>	Environment and society, Climate change and energy transition	<b>66-78</b>
<b>Employees</b>	Our people	<b>79-81</b>
<b>Social matters</b>	Environment and society	<b>70</b>
<b>Respect for human rights</b>	Environment and society	<b>70</b>
<b>Anti-corruption and anti-bribery matters</b>	Our people	<b>80</b>

### REPURCHASES OF SHARES

At the 2018 Annual General Meeting (AGM), shareholders granted an authority, which expires on the earlier of the close of business on August 22, 2019, and the end of the 2019 AGM, for the Company to repurchase up to a maximum of 834 million of its shares (excluding purchases for employee share plans). In accordance with this authority, on July 26, 2018, we announced the immediate start of a share buyback programme of at least \$25 billion by the end of 2020 subject to further progress with debt reduction and oil price conditions.

During 2018, 125 million A ordinary shares with a nominal value of €8.8 million (\$10.6 million) (1.52% of the Company's total issued share capital at December 31, 2018) were purchased and cancelled for a total cost of \$3.9 billion including expenses, at an average price of \$31.55 per share.

The purpose of the shares repurchased in 2018 under the share buyback programme is to reduce the issued share capital of the Company. This is in order to offset the number of shares issued under the Scrip Dividend Programme and to significantly reduce the equity issued in connection with the Company's combination with BG Group. The Scrip Dividend Programme was cancelled with effect from the fourth quarter 2017 interim dividend. More information can be found at [www.shell.com/scrip](http://www.shell.com/scrip). From January 1, 2019, to January 28, 2019, the end of the second tranche of the share buyback programme, a further 19.1 million A shares (0.23% of the Company's total issued share capital at December 31, 2018) were purchased for cancellation for a total cost of \$572 million including expenses, at an average price of \$29.95 per share. This means that 690 million ordinary shares could still be repurchased under the current AGM authority.

The Board continues to regard the ability to repurchase issued shares in suitable circumstances as an important part of Shell's financial management. A resolution will be proposed at the 2019 AGM to renew the authority for the Company to purchase its own share capital, up to specified limits, for a further year. This proposal will be described in more detail in the Notice of Annual General Meeting.

## BOARD OF DIRECTORS

The Directors during the year were Ben van Beurden, Ann Godbehere (appointed with effect from May 23, 2018), Euleen Goh, Charles O. Holliday, Catherine J. Hughes, Gerard Kleisterlee, Roberto Setubal, Sir Nigel Sheinwald, Linda G. Stuntz, Jessica Uhl, Hans Wijers (who stood down on May 22, 2018), and Gerrit Zalm.

## RETIREMENT, REAPPOINTMENT AND APPOINTMENT OF DIRECTORS

In line with the UK Corporate Governance Code (Code), all Directors will retire at the 2019 AGM and seek reappointment by shareholders. Shareholders will also be asked to vote on the appointment of Neil Carson with effect from June 1, 2019.

The biographies of all current Directors are given on pages 82-87 and biographies for those seeking appointment or reappointment will also be included in the Notice of Annual General Meeting. Details of the Executive Directors' contracts can be found on pages 145-146 and copies are available for inspection from the Company Secretary. Furthermore, a copy of the form of these contracts has been filed with the US Securities and Exchange Commission and incorporated by reference as an exhibit to this Report.

The terms and conditions of appointment of Non-executive Directors are set out in their letters of appointment with the Company which, in accordance with the Code, are available for inspection from the Company Secretary. A copy of the form of these letters of appointment has also been filed with the US Securities and Exchange Commission and incorporated by reference as an exhibit to this Report.

No Director is, or was, materially interested in any contract subsisting during or at the end of the year that was significant in relation to the Company's business. See also "Related party transactions" below.

## DIRECTORS' INTERESTS

The interests (in shares of the Company or calculated equivalents) of the Directors in office at the end of the year, including any interests of a "connected person" [A], can be found in the "Directors' Remuneration Report" on pages 135-136.

[A] "Connected person" has the meaning given to "person closely associated" within the Market Abuse Regulation.

Changes in Directors' share interests during the period from December 31, 2018, to March 13, 2019, can be found in the "Directors' Remuneration Report" on pages 135-136.

## QUALIFYING THIRD-PARTY INDEMNITIES

The Company has entered into a deed of indemnity with each Director who served during the year under identical terms. The deeds indemnify the Directors to the widest extent permitted by the applicable laws of England against all liability incurred as a Director or employee of the Company or of certain other entities.

## RELATED PARTY TRANSACTIONS

Other than disclosures given in Notes 09 and 27 to the "Consolidated Financial Statements" on pages 188-189 and 214 respectively, there were no transactions or proposed transactions that were material to either the Company or any related party. Nor were there any transactions with any related party that were unusual in their nature or conditions.

## POLITICAL CONTRIBUTIONS

No donations were made by the Company or any of its subsidiaries to political parties or organisations during the year. Shell Oil Company administers the non-partisan Shell Oil Company Employees' Political Awareness Committee (SEPAC), a political action committee registered with the US Federal Election Commission. Eligible employees may make voluntary personal contributions to the SEPAC.

## RECENT DEVELOPMENTS AND POST-BALANCE SHEET EVENTS

There are no material recent developments or post-balance sheet events to report.

## LIKELY FUTURE DEVELOPMENTS

Information relating to likely future developments can be found in the "Strategic Report" on pages 07-81.

## RESEARCH AND DEVELOPMENT

Information relating to Shell's research and development, including expenditure, can be found in "Business overview" on page 12.

## DIVERSITY AND INCLUSION

Information concerning diversity and inclusion can be found in "Our people" on pages 79-80.

## EMPLOYEE COMMUNICATION AND INVOLVEMENT

Information concerning employee communication and involvement can be found in "Our people" on page 79.

### CORPORATE SOCIAL RESPONSIBILITY

A summary of Shell's approach to corporate social responsibility can be found in "Environment and society" on pages 66-70 and "Our people" on pages 79-81. Further details will be available in the Shell Sustainability Report 2018.

### GREENHOUSE GAS EMISSIONS

Information relating to greenhouse gas emissions can be found in "Climate change and energy transition" on pages 71-78.

### FINANCIAL RISK MANAGEMENT, OBJECTIVES AND POLICIES

Descriptions of the use of financial instruments and Shell's financial risk management objectives and policies, and exposure to market risk (including price risk), credit risk and liquidity risk can be found in Note 19 to the "Consolidated Financial Statements" on pages 202-207.

### SHARE CAPITAL

The Company's issued share capital on December 31, 2018, is set out in Note 8 to the "Parent Company Financial Statements" on pages 243-245. The percentage of the total issued share capital represented by each class of share is given below.

#### Share capital percentage

Share class	%
A ordinary	54.42
B ordinary	45.58
Sterling deferred	de minimis

### TRANSFER OF SECURITIES

There are no significant restrictions on the transfer of securities.

### SHARE OWNERSHIP TRUSTS AND TRUST-LIKE ENTITIES

Shell has three primary employee share ownership trusts and trust-like entities: a Dutch foundation (stichting) and two US Rabbi Trusts. The shares held by the Dutch foundation are voted by its Board and the shares in the US Rabbi Trusts are voted by the Voting Trustee, Newport Trust Company. Both the Board of the Dutch foundation and the Voting Trustee are independent of Shell.

The UK Shell All Employee Share Ownership Plan has a separate related share ownership trust. Shares held by the trust are voted by its trustee, Computershare Trustees Limited, as directed by the participants.

### SIGNIFICANT SHAREHOLDINGS

Information concerning significant shareholdings can be found on page 257.

### ARTICLES OF ASSOCIATION

Information concerning the Articles of Association can be found on pages 104-112.

### LISTING RULE INFORMATION [A]

Information concerning the amount of interest capitalised by Shell can be found in Note 6 to the "Consolidated Financial Statements" on page 184.  
[A] This information is given in accordance with Listing Rule 9.8.4R.

### AUDITOR

A resolution relating to the appointment of Ernst & Young LLP as auditor for the financial year 2019 will be proposed at the 2019 AGM.

### CORPORATE GOVERNANCE

The Company's statement on corporate governance is included in the "Corporate governance" report on pages 95-112 and is incorporated in this Directors' Report by way of reference.

### ANNUAL GENERAL MEETING

The AGM will be held on May 21, 2019, at the Circustheater, Circusstraat 4, 2586 CW, The Hague, The Netherlands. The Notice of Annual General Meeting will include details of the business to be put to shareholders at the AGM.

Signed on behalf of the Board

/s/ Linda M. Szymanski

Linda M. Szymanski

Company Secretary

March 13, 2019

# Corporate governance

Dear Shareholders,

First, I would like to take you back to my opening statement at the beginning of this Report. There, I highlighted the importance of public trust, and the pages which followed provided more information on how we strive to achieve this trust. We operate in more than 70 countries, each with their own culture and expectations. We believe that operating in line with our core principles of honesty, integrity and respect for people and adhering to the Shell General Business Principles, Code of Conduct and Code of Ethics, helps everyone across Shell to do what is right and to comply with the relevant laws and regulations where they work. This will help us achieve the trust we strive for.

At the beginning of this Report, I also highlighted the importance of transparency, especially when working to earn trust. In the Governance section of this report, which starts on page 82, we provide not just the assurances legislation and regulation require from us, but we also try to provide a deeper understanding of the composition of our Board through new disclosure of the attributes each Director brings to our business. Further, we have enhanced our reporting of the diversity of skills and experience represented in the boardroom and how the Board was evaluated in 2018. In addition, we have included a new section on stakeholder engagement, an area of reporting that we plan to build on in the coming years, information on our Board activities during the year, the activities of our Committees and a detailed overview of our control framework.

We provide information on our governance arrangements and how we have applied the main principles and complied with the relevant provisions set out in the 2016 UK Corporate Governance Code (the Code) issued by the Financial Reporting Council (FRC). As I referenced in last year's report, the Code was under review by the FRC in 2017/18, and in July 2018 the outcome of this review was published in the form of the 2018 UK Corporate Governance Code (the New Code). The New Code applies to company reporting periods commencing on or after January 1, 2019, and we will report in accordance with this New Code next year. The New Code reiterates the importance of the "comply or explain" approach of its application and recognises that an alternative to complying with a provision may be justified in particular circumstances based on a range of factors, including the size, complexity and history of a company. One of the provisions of the New Code brings a new recommended nine-year limit to the tenure of the Board Chair. As this is a provision that directly relates to me, our Senior Independent Director, Gerard Kleisterlee provides a clear explanation of how the Board proposes to address this on page 98.

Building public trust this year also involved strengthening our public commitment to the Paris Agreement on climate change. In our joint statement with institutional investors on behalf of Climate Action 100+, we have committed to operationalise our ambition of around 50% Net Carbon Footprint reduction by 2050, through the setting of short-term targets which will be linked to executive remuneration. Further, as part of our transparency efforts within remuneration, we have published our CEO Pay Ratio, in line with new legislation. Although this is not required until 2020, we were keen to publish this information early. For full details, please see our Directors' Remuneration Report on page 138.

During the year, the Board spent time on a number of key matters related to transitioning to a lower-carbon energy system, such as our Sky scenario report and the Shell Energy Transition report. In addition, the Board discussed Shell's Net Carbon Footprint ambition and some of our Non-executive Directors

received dedicated updates from management and external experts on New Energies, the various business models, advantages and disadvantages of having positions in various value chains and the opportunities for Shell in this area. Furthermore, the Board held its annual two-day, strategy-focused meeting in Italy. External developments – including the energy transition – and their potentially uncertain impact set the background for this meeting, and for the critical but exciting decisions Shell will take as we navigate our course. The decisions this Board will take will be essential in shaping a resilient future for Shell. Given that and the importance of robust relationships in the boardroom as we consider and deliberate these matters, we invested time to strengthen the relationships both among Directors, particularly given new joiners over the last year, and between the Board and the Executive Committee. In addition, given the developments in our strategy over the last few years, this meeting provided an opportunity to take stock of the strategy and to reflect on and deepen the understanding of that strategy. More information on this can be found on page 98.

Succession is another key topic that remains a Board priority, and 2018 brought several changes to the composition of the Board. At the AGM, shareholders were asked to vote on the appointment of Ann Godbehere as a Non-executive Director with effect from May 23, 2018. The appointment was overwhelmingly endorsed by shareholders, and we are delighted with the valuable contributions she has already made. Hans Wijers stood down from his role as Non-executive Director at the 2018 AGM, after nine years on the Board, resulting in changes to our Senior Independent Director, Chair of the Remuneration Committee and Chair of the Corporate and Social Responsibility Committee.

In January 2019, we announced the intention to propose to this year's AGM that Neil Carson be appointed a Non-executive Director of the Company with effect from June 1, 2019. Neil has a wealth of expertise and brings a proven track record of utilizing his strong operational exposure, familiarity with capital-intensive business and a first-class international perspective on driving value in complex environments. We hope that you support his election. As with all our appointments, we believe that diversity is a critical factor for success, but we also recognise it is a continuous journey. Diversity is a key aspect within our succession planning, and we consistently stress test the talent pipeline from a diversity perspective. As I reference above, we have enhanced our reporting on the diversity of skills and experience represented in the boardroom this year, and this can be found on pages 82-88.

The Board completed its annual performance evaluation in December 2018. The process was internally facilitated, and we again used the support of an external consultant to assist with the administration of the process. We built on last year's evaluation by conducting the review in three stages, covering our two-day strategy-focused meeting; a skills and experience evaluation, which has input into the additional disclosure within our Board diversity overview; and our Board and Committees. The process again proved to be a valuable exercise generating reflective discussions and planned actions. You can read more about the process on pages 100-101.

In addition to leading the process for the Board changes noted above, the Nomination and Succession Committee also continued its focus on ongoing succession planning, monitored and reviewed corporate governance developments and made related recommendations to the Board. There were numerous corporate governance developments throughout the year, including the publication of the New Code, which will make 2019 yet another busy year for our Committees. The Board plans to propose modifications to the Company's Articles of Association (the Articles) at the 2019 AGM.

## Corporate governance Continued

The Articles were last updated and approved by shareholders in 2010. The modifications will primarily reflect developments in best practice and provide additional clarification and flexibility. The modifications to be proposed have been reviewed by the Nomination and Succession Committee. Details of the modifications will be included in the 2019 Notice of Annual General Meeting.

Finally, we hope this report demonstrates a fair and balanced view of our governance processes. I would also like to thank my fellow Directors, my colleagues and our workforce around the world for their considerable efforts.

### Chad Holliday

Chair

March 13, 2019

### STATEMENT OF COMPLIANCE

The Board confirms that, throughout the year, the Company has applied the main principles and complied with the relevant provisions set out in the Code issued by the Financial Reporting Council (FRC) (the Code) in April 2016 [A][B]. In addition to complying with applicable corporate governance requirements in the UK, the Company must follow the rules of Euronext Amsterdam as well as Dutch securities laws because of its listing on that exchange. The Company must likewise follow US securities laws and the New York Stock Exchange (NYSE) rules and regulations because its securities are registered in the USA and listed on the NYSE.

[A] A copy of the Code can be found on the FRC's website ([frc.org.uk](http://frc.org.uk)).

[B] In July 2018, the FRC issued an updated version of the Code which applies to accounting periods beginning on or after January 1, 2019.

### NYSE GOVERNANCE STANDARDS

In accordance with the NYSE rules for foreign private issuers, the Company follows home-country practice in relation to corporate governance.

However, foreign private issuers are required to have an audit committee that satisfies the requirements of the US Exchange Act Rule 10A-3. The Company's Audit Committee satisfies such requirements. The NYSE also requires a foreign private issuer to provide certain written affirmations and notices to the NYSE, as well as a summary of the significant ways in which its corporate governance practices differ from those followed by domestic US companies under NYSE listing standards (see Section 303A.11 of the NYSE Listed Company Manual). The Company's summary of its corporate governance differences is given below and can be found at [www.shell.com/investor](http://www.shell.com/investor).

### NON-EXECUTIVE DIRECTOR INDEPENDENCE

The Board follows the provisions of the Code in determining Non-executive Director independence, which states that at least half of the Board, excluding the Chair, should comprise Non-executive Directors determined by the Board to be independent. In the case of the Company, the Board has determined that all the Non-executive Directors at the end of 2018 are independent.

### NOMINATING/CORPORATE GOVERNANCE COMMITTEE AND COMPENSATION COMMITTEE

The NYSE listing standards require that a listed company maintain a nominating/corporate governance committee and a compensation committee, both composed entirely of independent directors and with certain specific responsibilities. The Company's Nomination and Succession Committee and Remuneration Committee both comply with these requirements, except that the terms of reference of the Nomination and Succession Committee require only a majority of the committee members to be independent.

### AUDIT COMMITTEE

As required by NYSE listing standards, the Company maintains an Audit Committee for the purpose of assisting the Board's oversight of its financial statements, its internal audit function and its independent auditors. The Company's Audit Committee is in full compliance with US Exchange Act Rule 10A-3 and Sections 303A.06 and 303.07 of the NYSE Listed Company Manual.

The Company's Audit Committee is not directly responsible for the appointment of independent auditors. However, the Company's Audit Committee makes recommendations to the Board for it to put to shareholders for approval in Annual General Meetings. UK legislation provides that it is for shareholders to agree the appointment, reappointment and removal of the Company's independent auditors.

### SHAREHOLDER APPROVAL OF SHARE-BASED COMPENSATION PLANS

The Company complies with the Listing Rules published by the Financial Conduct Authority (FCA), which require shareholder approval for the adoption of share-based compensation plans which are either long-term incentive plans in which one or more Directors can participate or plans which involve or may involve the issue of new shares or the transfer of treasury shares. Under the FCA rules, such plans cannot be changed to the advantage of participants without shareholder approval, except for certain minor amendments, for example to benefit the administration of the plan or to take account of tax benefits. The rules on the requirements to seek shareholder approval for share-based compensation plans, including those in respect of material revisions to such plans, may deviate from the NYSE listing standards.

### CODE OF BUSINESS CONDUCT AND ETHICS

The NYSE listing standards require that listed companies adopt a code of business conduct and ethics for all directors, officers and employees and promptly disclose any waivers of the code for directors or executive officers. The Company has adopted the Shell General Business Principles (see below), which satisfy the NYSE requirements. The Company also has internal procedures in place by which any employee can raise in confidence accounting, internal accounting controls and auditing concerns. Additionally, any employee can report concerns to management by telephone or over the internet without jeopardising their position (see below).

### SHELL GENERAL BUSINESS PRINCIPLES

The Shell General Business Principles define how Shell subsidiaries are expected to conduct their affairs and are underpinned by the Shell core values of honesty, integrity and respect for people. These principles include, among other things, Shell's commitment to support fundamental human rights in line with the legitimate role of business and to contribute to sustainable development. They are designed to mitigate the risk of damage to our business reputation and to prevent violations of local and international legislation. They can be found at [www.shell.com/sgbp](http://www.shell.com/sgbp). See "Risk factors" on page 19.

### SHELL CODE OF CONDUCT

Directors, officers, employees and contract staff are required to comply with the Shell Code of Conduct, which instructs them on how to behave in line with the Shell General Business Principles. This code clarifies the basic rules and standards they are expected to follow and the behaviour expected of them. These individuals must also complete mandatory Code of Conduct training.

Designated individuals are required to complete additional mandatory training on antitrust and competition laws, anti-bribery, anti-corruption and anti-money laundering laws, data protection laws and trade compliance requirements (see "Risk factors" on page 19). The Shell Code of Conduct can be found at [www.shell.com/codeofconduct](http://www.shell.com/codeofconduct).

### **CODE OF ETHICS**

Executive Directors and Senior Financial Officers of Shell must also comply with a Code of Ethics. This code is specifically intended to meet the requirements of Section 406 of the Sarbanes-Oxley Act and the listing requirements of the NYSE (see above). It can be found at [www.shell.com/codeofethics](http://www.shell.com/codeofethics).

### **SHELL GLOBAL HELPLINE**

Employees, contract staff, third parties with whom Shell has a business relationship (such as customers, suppliers and agents), and any member of the public (including shareholders) may raise ethics and compliance concerns (anonymously if preferred) through the Shell Global Helpline. This is a worldwide confidential reporting mechanism, operated by an independent external third party, and is available 24 hours a day, seven days a week by telephone and at [www.shell.com](http://www.shell.com) or <https://shell.alertline.eu>. Concerns are assessed and managed by a specialist investigations team under a mandate from the Audit Committee.

### **BOARD STRUCTURE AND COMPOSITION**

During 2018, the Board comprised the Chair; two Executive Directors, namely the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO); and eight Non-executive Directors, including the Deputy Chair and Senior Independent Director.

A list of current Directors, including their biographies, can be found on pages 82-87. The Board recognises its collective responsibility for the long-term success of the Company. Generally, it meets eight times a year [A] and has a formal schedule of matters reserved to it. This includes: overall strategy and management; corporate structure and capital structure; financial reporting and control, including approval of the Annual Report and Form 20-F, and interim dividends; oversight and review of risk management and internal control; significant contracts; and succession planning and new Board appointments. The full list of matters reserved to the Board for decision can be found at [www.shell.com/investor](http://www.shell.com/investor).

[A] See page 100 for the number of meetings held in 2018.

### **ROLE OF DIRECTORS**

The roles of the Chair, a non-executive role, and the CEO are separate, and the Board has agreed their respective responsibilities.

The Chair is responsible for the leadership and management of the Board and for ensuring that the Board and its committees function effectively. One way in which this is achieved is by ensuring Directors receive accurate, timely and clear information. He is also responsible for agreeing and regularly reviewing the training and development needs of each Director (see "Induction and training" below) which he does with the assistance of the Company Secretary. The Company Secretary also advises the Board on all governance matters.

The CEO bears overall responsibility for the implementation of the strategy agreed by the Board, the operational management of the Company and

the business enterprises connected with it. He is supported in this by the Executive Committee which he chairs (see page 101).

### **NON-EXECUTIVE DIRECTORS**

Non-executive Directors are appointed by the Board or by shareholders at general meetings and, in accordance with the Code, must seek re-election by shareholders on an annual basis. Their letter of appointment refers to a specific term of office, such term being subject to the provisions of the Code and the Company's Articles of Association (the Articles). Upon appointment, Non-executive Directors confirm they are able to allocate sufficient time to meet the expectations of the role. Appointments are subject to a minimum of three months' notice of termination, and there is no compensation provision for early termination.

The Non-executive Directors bring a wide range and balance of skills and international business experience to Shell. Through their contribution to Board meetings and to Board committee meetings, they are expected to challenge and help develop proposals on strategy and bring independent judgement on issues of performance and risk. Generally, prior to each meeting of the Board, the Chair and the Non-executive Directors meet without the Executive Directors to discuss, among other things, the performance of individual Executive Directors. A number of Non-executive Directors also meet major shareholders periodically.

The role of the Senior Independent Director is to provide a sounding board for the Chair and to serve as an intermediary for the other Directors when necessary. The Senior Independent Director is available to shareholders if they have concerns which contact through the normal channels of Chair, CEO or CFO has failed to resolve or for which such contact is inappropriate.

All of the Non-executive Directors are considered by the Board to be independent.

### **CONFLICTS OF INTEREST**

Certain statutory duties with respect to directors' conflicts of interest are in force under the Companies Act 2006 (the Act). In accordance with the Act and the Articles, the Board may authorise any matter that otherwise may involve any of the Directors breaching their duty to avoid conflicts of interest. The Board has adopted a procedure to address these requirements. It includes the Directors completing detailed conflict of interest questionnaires. The matters disclosed in the questionnaires are reviewed by the Board and, if considered appropriate, authorised in accordance with the Act and the Articles. Conflicts of interest as well as any gifts and hospitality received by and provided by Directors are kept under review by the Board. Further information relating to conflicts of interest can be found on pages 106-107.

### **SIGNIFICANT COMMITMENTS OF THE CHAIR**

The Chair's other significant commitments are given in his biography on page 82.

### **INDEPENDENT PROFESSIONAL ADVICE**

All Directors may seek independent professional advice in connection with their role as a Director. All Directors have access to the advice and services of the Company Secretary. The Company has provided both indemnities and directors' and officers' insurance to the Directors in connection with the performance of their responsibilities. Copies of these indemnities and the

## Corporate governance Continued

directors' and officers' insurance policies are open to inspection. A copy of the form of these indemnities has been previously filed with the SEC and is incorporated by reference as an exhibit to this Report.

### BOARD ACTIVITIES DURING THE YEAR

The Board generally meets eight times a year. However, in 2018, there were 10 meetings, nine of which were held in The Hague, the Netherlands and one in Florence, Italy.

The agenda for each meeting included a number of regular items, including reports from the CEO, the CFO and other members of the Executive Committee, from each of the Board committees and from the various functions, including finance (which includes investor relations), health and security, human resources, and legal (which includes the Company Secretary). The Board also considered and approved the quarterly, half-year and full-year financial results and dividend announcements and, at most meetings, considered a number of investment, divestment and financing proposals.

During the year, the Board received reports and presentations on certain Shell activities (including those in Brazil, Canada, the Netherlands, Nigeria, Oman, Pakistan and Russia), the New Energies business, digital strategy and the Shell brand. The Board also spent considerable time discussing ethics and compliance, including how to continue to build a strong corporate culture. In addition, it received reports on ethics and compliance, litigation, risk management and internal control, safety and environmental performance, senior management succession and corporate governance developments. The Board continued to receive updates, from a committee set up in 2017, on matters related to investigations and litigation against the Company regarding OPL 245, a deep-water block in Nigeria.

Progress against our strategy is closely monitored by the Executive Committee and discussed at each Board meeting. In addition, each year the Board holds a strategy-focused meeting, generally over two days, to discuss and deepen understanding of the individual and holistic elements of the overall Shell strategy. The meeting is held away from the office to encourage more relaxed and free-flowing discussions. This also helps to strengthen the relationship between the Board and Executive Committee. In 2018, the meeting was held in Italy, which enabled the Board to engage with senior management from Ferrari, which has been a Shell innovation partner for more than 50 years.

At its strategy meeting, progress was reviewed against our short-term plans and our vision for the future. The Board debated the business priorities and longer-term challenges of the evolving mobility landscape. The Non-executive Directors shared their expertise and provided independent oversight to the discussion.

As it has in previous years, certain Board Committees and Non-executive Directors conducted site visits of various Shell operations and overseas offices (see "Induction and training" below). These visits were designed to provide Directors with first-hand insights into some key portfolio positions. Directors also held various workforce engagements in these locations, as well as external stakeholder engagements.

### CHAIR TENURE

Charles O. Holliday (Chad) was appointed as Chair in 2015 after 4.5 years on the Board as a Non-executive Director. He will reach a tenure of nine years in September 2019.

In January 2019, the New Code came into force and with it came a new recommended tenure of the chair. The New Code advises that the chair should not remain in post beyond nine years from the date of first appointment to the board. However, the New Code pragmatically acknowledges the situation in which we find ourselves, with a Chair approaching nine years, and if a clear explanation is provided, the New Code permits a limited time extension where this would support a Company's succession plan and diversity policy, particularly in those cases where the chair was an existing Non-executive Director on appointment.

The Nomination and Succession Committee, and the Board, have discussed this New Code requirement at length. In addition, the Company Secretary engaged with proxy advisory firms and some of our largest investors on the matter. Furthermore, Gerard Kleisterlee, our Senior Independent Director, engaged with investors on this topic at our governance event in December 2018 and communicated our preference for Chad Holliday to remain as Chair until our 2021 AGM.

The Board believes that retaining Chad until then would facilitate more effective phasing of his succession. An earlier departure would be disruptive and could leave a significant deficiency in Shell Board experience by 2020, when the current Senior Independent Director (Gerard Kleisterlee) and longest-serving Director (Linda G. Stuntz) will also have reached a nine-year tenure.

The Board believes that Chad continues to be a very effective Chair. Although the Board will continue to assess his objectivity, the Board is confident that he continues to exercise objective judgment, despite his tenure approaching nine years. In fact, the Board finds the continuity of his corporate knowledge and experience essential to complement and support the new skills and experience of its Director appointments of the last two years, as well as those that we will need to make in the next two years.

Further, the Board finds that his deep understanding and knowledge of the Shell Group, coupled with the strong Shell relationships he has established, enable him to effectively challenge management as well as coach other Non-executive Directors on the intricacies and nuances of the business, thereby better equipping them to likewise effectively challenge management and enhance overall governance. The Board has also achieved near gender parity and increased diversity under Chad's leadership as Chair.

He is well placed to lead the Board through the next two years, which are critical to succession planning, and to continue the strengthening of diversity among the Board and Senior Management.

Note: The text relating to Chair tenure is provided by Gerard Kleisterlee, Senior Independent Director.

### STAKEHOLDER ENGAGEMENT

Shell recognises the important role it has to play in society and is deeply committed to public collaboration and stakeholder engagement. This commitment is at the heart of one of Shell's three strategic ambitions: to

sustain a strong societal licence to operate and contribute to society through our activities.

Shell places a high value on collaboration and has a long track record of working in partnerships with others, be it with investors, industry and trade groups, universities, governments or NGOs. We believe that our work with organisations around the world gives us greater insight into our business, and that sharing knowledge and experience with others contributes to developing better policies and practices.

Collaboration is particularly critical where society, including businesses, governments and consumers, faces issues as complex and challenging as climate change. Shell recognises that it has an important role to play in collaboration with its stakeholders.

In particular, Shell appreciates the long-term relationship it has with institutional investors and acknowledges the positive role that can be played by ongoing engagement and dialogue. In December 2018, Shell released a joint statement with a leadership group of institutional investors on behalf of the global investor initiative, Climate Action 100+. The announcement sets out key steps that Shell has decided to take to demonstrate alignment with the goals of the Paris Agreement on climate change: Shell announced that it will operationalise its Net Carbon Footprint (NCF) ambition by setting NCF-specific short-term targets, and that it will incorporate a link between the energy transition and the long-term remuneration of executives.

Shell further built on its Net Carbon Footprint ambition, taking a significant leadership position within the oil and gas sector with strong support from stakeholders. The statement is the result of long-term, ongoing engagement that has helped to inform and refine our strategy. What is clear from the joint statement is that there is strong support for this level of engagement with stakeholders and for our commitments as announced in the statement.

Shell also recognises the importance of its other stakeholders, including employees, customers and suppliers. For many years, the Board has recognised the importance of engaging with all our stakeholders, the need to understand and consider their views, and take account of these when making decisions.

This manifests itself through regular employee engagement in relation to all aspects of our work, community consultations for projects with potential social impacts, and Shell's strong focus on health and safety and environmental issues. In light of the New Code, the Board will be taking more concrete actions to assure the views of our stakeholders are considered in Board discussions and decision-making, as highlighted at the end of the Board evaluation section.

Shell also works closely with commercial third parties to deliver its strategic ambitions in mutually beneficial ways. For example, Shell created the Contractor Safety Leadership initiative to encourage Shell companies and their contractors to collaborate more effectively to improve safety and standardise procedures, yielding positive results. Shell is also present on the Steering Committee of the Permian Road Safety Coalition, an innovative collaboration of cross-industry efforts to improve road safety. These are just

a few examples of the ways in which Shell can leverage its position and share its experience to make a positive contribution to society.

Further insight on our engagement with stakeholders can be found within our Sustainability Report and our report on payments to governments, scheduled for publication in April 2019.

## INDUCTION AND TRAINING

Following appointment to the Board, Directors receive a comprehensive induction tailored to their individual needs. This includes site visits and meetings with senior management to enable them to build up a detailed understanding of Shell's business and strategy, and the key risks and issues which they face. For Ann Godbehere, who was appointed to the Board with effect from May 23, 2018, Director-specific briefing materials were provided and induction sessions were held with various businesses and functions. She also participated in separate site visits: she visited our operations in Qatar, where she met with the Minister of Energy and Industry and connected with Qatar Shell senior female employees and the senior leadership team. While in Qatar, Ann also visited Pearl GTL, the world's largest gas-to-liquids plant, and the Qatargas 4 gas liquefaction plant.

Throughout the year, regular updates on developments in legal matters, governance and accounting are provided to all Directors. The Board regards site visits as an integral part of ongoing Director training. During the year, Catherine Hughes visited the Shell Scotford Complex in Canada, which consists of a bitumen upgrader, oil refinery, chemicals plant and a carbon capture and storage (CCS) facility. She also visited Kitimat, the site of our project involving the planned construction of a new greenfield gas liquefaction plant. Our Audit Committee visited our Trading and Supply operations at our London offices and our Corporate Social Responsibility Committee (CSRC) visited the Moerdijk chemical complex and our operations in Nigeria. More information on these visits can be found on pages 101-102 for the CSRC and pages 113-114 for the Audit Committee. Additional training is available so that Directors can update their skills and knowledge as appropriate.

### ATTENDANCE AT BOARD AND BOARD COMMITTEE MEETINGS

Attendance during 2018 for all Board and Board committee meetings is given in the table below.

**Attendance at Board and Board committee meetings [A]**

	Board	Audit Committee	Corporate and Social Responsibility Committee	Nomination and Succession Committee	Remuneration Committee
Ben van Beurden	10/10				
Ann Godbehere	7/7	3/3			
Euleen Goh [B]	9/10	6/6			
Charles O. Holliday	10/10			7/7	
Catherine J. Hughes	10/10		6/6		5/5
Gerard Kleisterlee	10/10			5/5	5/5
Roberto Setubal	10/10	6/6			
Sir Nigel Sheinwald	10/10		6/6		5/5
Linda G. Stuntz	10/10	3/3	4/4	7/7	
Jessica Uhl	10/10				
Hans Wijers [C]	3/3		1/2	1/2	
Gerrit Zalm [D]	9/10	6/6			5/5

[A] The first figure represents attendance and the second figure the possible number of meetings. For example, [10/10] signifies attendance at [ten] out of [ten] possible meetings. Where a Director stood down from the Board or a Board committee during the year, or was appointed during the year, only meetings before standing down or after the date of appointment are shown.

[B] During 2018, an unscheduled Board meeting was held at short notice. Euleen Goh was unable to attend this meeting due to a clash with scheduled travel arrangements.

[C] Hans Wijers was unable to attend one Nomination Committee meeting held during the year due to a clash with a pre-agreed business commitment.

[D] Gerrit Zalm was asked not to attend an ad-hoc teleconference held in 2018 as the subject of the call was a matter where Gerrit Zalm was subject to certain conditions designed to avoid any actual or perceived conflicts of interest.

### BOARD EVALUATION

The 2018 Board evaluation was facilitated internally, led by the Nomination and Succession Committee and managed by the Company Secretary. The review was undertaken in three stages:

#### Board Evaluation



At each stage members of the Board completed surveys online using the Lintstock Review Service platform. Lintstock are a London-based corporate advisory firm with no other connection with the Company. Separately, and to obtain additional executive perspectives, the Executive Committee also completed surveys in Phases One and Three.

#### Phase One – Strategy day review

Phase One focused on the effectiveness of the Board's annual two-day, strategy-focused meeting, including the agenda and time management at the event, the quality of materials distributed in advance, and the role of the Board in determining the strategic plan and overseeing implementation. The review placed particular focus on the Board's understanding of the views and requirements of various stakeholder groups, in the context of Shell's strategic plan.

#### Phase Two – Skills and experience

Following feedback from investors seeking greater understanding of the skills and experience represented on the Board, the Board decided to enhance reporting in this area.

To support this enhanced disclosure, the Board undertook a refreshed Board skills and experience review, where their skills and experience, obtained outside of Shell over the duration of each Director's career, were updated and ranked against a list of criteria.

The outcome of this review is reflected in the biographical narratives on pages 82-87, and the enhanced diversity disclosure and skill-set reporting on page 88.

#### Phase Three – Board and Committees

Undertaken in November/December and ahead of the final Board meeting of 2018, the scope of Phase Three was broader, with greater focus on the effectiveness of the Board, the Chair and each of the Board committees. Surveys were built around the output of the previous year's review, and took into account the trends and themes that emerged from the Strategy Day Review conducted earlier in the year. The exercise also involved a review of the induction and ongoing training opportunities available to the Directors, as well as the individual contribution of each Director.

From the completed surveys, a report was prepared with concise narrative and supporting graphical data, including a series of key recommendations and one-page executive summary. The anonymity of all respondents was ensured throughout the process.

At its meeting in December, the performance of the Board as a whole and of the Board committees was discussed by the Nomination and Succession Committee and subsequently by the full Board. Observations by Executive Committee members on Board performance, which had been provided in a separate report, were also discussed. The discussions were led by the Chair and focussed on matters such as:

- Board composition, dynamics, expertise and support;
- the Board's understanding of the views and requirements of investors, employees, governments, customers and communities;
- the management and focus of meetings; and
- the capacity of the organisation to deliver Shell's strategy.

The top priorities for the Board over the coming year were discussed and it was agreed that they included:

- Board composition, Board and senior management succession;
- the Board's understanding of the views of all our stakeholders and, more explicitly, ensuring these are considered as relevant in the Board's discussions and decision-making; and
- strengthening the appropriate balance of the Board's focus on the energy transition and New Energies business, as well as current operational matters.

After the Chair recused himself from the meeting, the Deputy Chair discussed the evaluation report on the Chair's performance. He summarised the strength of the positive ratings on such items as the Chair's communication and relationship with the CEO and other Directors, dealing with specific Director-related matters, availability outside of Board meetings, management of Board meetings, and his relationship with major shareholders and other stakeholders. The CEO and CFO confirmed the positive feedback received from wider Shell staff on the Chair's engagement style as well as his clear respect for the boundary between executive and non-executive responsibilities. Upon re-joining the meeting, the Deputy Chair provided a summary of the overview to the Chair.

The 2019 Board evaluation will be externally facilitated.

## EXECUTIVE COMMITTEE

The Executive Committee operates under the direction of the CEO in support of his responsibility for the overall management of Shell's business. The CEO has final authority in all matters of management that are not within the duties and authorities of the Board or of the shareholders' general meeting. The current composition of the Executive Committee is as follows:

### Executive Committee

Ben van Beurden	CEO [A][B]
Jessica Uhl	CFO [A][B]
John Abbott	Downstream Director [B]
Harry Brekelmans	Projects & Technology Director [B]
Andrew Brown	Upstream Director [B][C]
Ronan Cassidy	Chief Human Resources & Corporate Officer [B]
Donny Ching	Legal Director [B]
Maarten Wetselaar	Integrated Gas and New Energies Director [B]

[A] Director of the Company.

[B] Designated an Executive Officer pursuant to US Exchange Act Rule 3b-7. Beneficially owns less than 1% of outstanding classes of securities.

[C] Wael Sawan will take up the role of Upstream Director and become a member of the Executive Committee from July 1, 2019, taking over from Andrew Brown. Andrew will remain available to Wael and the Executive Committee to assist with the transition until September 30, 2019. Note [B] above will apply to Wael from July 1, 2019.

## BOARD COMMITTEES

There are four standing Board committees made up of Non-executive Directors. These are the:

- Audit Committee;
- Corporate and Social Responsibility Committee;
- Nomination and Succession Committee; and
- Remuneration Committee.

Each of these Board committees has produced a report which has been approved by the relevant chair. A copy of each Committee's terms of reference is available from the Company Secretary and can be found at [www.shell.com/investor](http://www.shell.com/investor).

## AUDIT COMMITTEE

The Audit Committee Report, which sets out the composition and work of the Audit Committee during 2018, is on pages 113-118.

## CORPORATE AND SOCIAL RESPONSIBILITY COMMITTEE

The members of the Corporate and Social Responsibility Committee are Sir Nigel Sheinwald (Chair of the Committee with effect from May 23, 2018), Catherine J. Hughes and Linda Stuntz (appointed with effect from May 23, 2018). Hans Wijers stood down as Chair of the Committee on May 22, 2018. The Committee met six times during the year; the Committee members' attendances are shown on page 100.

The role of the CSRC is to review and advise the Board on Shell's strategy, policies and performance in the areas of safety, environment, ethics and reputation against the Shell General Business Principles, the Shell Code of Conduct, and the HSSE & SP Control Framework. Conclusions and recommendations made by the Committee are reported directly to the Executive Committee and Board.

The Committee fulfils its responsibilities by reviewing a wide range of areas, including the management of health, safety, security, environmental and social impacts of projects and operations. The Committee reviews detailed reports, papers and internal audits covering these areas, visits Shell operations around the world, and meets a wide range of staff and stakeholders. In addition, it provides input into the Shell Sustainability Report and reviews a draft of the report before publication, with the next Sustainability Report to be published in April 2019.

In 2018, the CSRC balanced its time between safety, environment, and ethics, all underpinned by a strong focus on corporate culture and conduct. The topics discussed in depth included personal and process safety, road safety, the energy transition and climate change, Shell's Net Carbon Footprint ambition, the Company's environmental and societal licence to operate, and its ethics programme. The CSRC also discussed Shell's operations and the challenges faced in Pakistan, Nigeria and the Netherlands. In 2018, the Committee held five meetings in person and one meeting by conference call.

The CSRC conducted two major site visits in 2018. In February, the Committee visited Nigeria, where over three days they met with Shell staff, government officials, and representatives from local non-governmental organisations to gain a deeper understanding of operations in the Niger Delta.

## **Corporate governance** Continued

In December, the Committee spent a day visiting our Moerdijk facility in the Netherlands, where they discussed process safety performance and local site challenges, including our relationship with the local community.

In 2019, the Committee's focus will include:

- safety, including process safety and road transport;
- the environment, including Shell's role in light of the Paris Agreement on climate change, providing advice to the Remuneration Committee on energy transition-related metrics, plastics, and operational environmental matters;
- ethics and compliance, including conduct and culture; and
- country focus, including Nigeria, Brazil, Canada (LNG Canada) and the Netherlands (Groningen). The Committee will visit Singapore in 2019.

### **NOMINATION AND SUCCESSION COMMITTEE**

The members of the Nomination and Succession Committee are Charles O. Holliday (Chair of the Committee), Linda G. Stuntz and Gerard Kleisterlee (appointed with effect from May 23, 2018). Hans Wijers stood down as a member of the Committee on May 22, 2018. The Committee met seven times during the year; the Committee members' attendances are shown on page 100.

The Committee continually reviews the leadership needs of the Company, based on the skills, experience, diversity and length of tenure on the Board as a whole, and identifies and nominates suitable candidates for the Board's approval to fill vacancies when they arise. In addition, it makes recommendations on who should be appointed Chair of the Audit Committee, the Corporate and Social Responsibility Committee and the Remuneration Committee and, in consultation with the relevant chair, recommends who should sit on each of the Board committees. It also makes recommendations on corporate governance guidelines, monitors compliance with corporate governance requirements and makes recommendations on disclosures connected with corporate governance of its appointment processes.

During 2018, the Committee dealt with the appointment of a new Non-executive Director, Ann Godbehere. As with all appointments to the Board, the appointment process involved the Committee agreeing on a candidate profile and, following an interview and benchmarking process, making a recommendation to the Board. The Board then sought shareholder approval for the appointment at the 2018 AGM held in May, proposing that the appointment be effective from May 23, 2018. The appointment was overwhelmingly endorsed by shareholders.

In addition to continuing its ongoing programme of succession planning for the Non-executive Directors and in particular for the Deputy Chair and Senior Independent Director, the Committee also considered the senior management talent pipeline and scheduled a series of meetings with prospective candidates with potential future senior leadership appointments in mind. It also considered any potential conflicts of interest and the independence of the Non-executive Directors and led the Board evaluation process.

In accordance with its terms of reference, the Committee monitored and reviewed corporate governance developments throughout the year. Such developments were numerous and included UK government proposals related to matters such as executive pay and the role of employees and other stakeholders, and a wide-ranging reform of the Code by the FRC. As referenced by the Chair, the New Code was published by the FRC in 2018, and the Committee continues to work with the Board to address the new requirements. The Committee continues to monitor and review these and other corporate governance developments, as well as considering whether and how current Company governance matters should be strengthened, and this is likely to keep the Committee engaged for the remainder of 2019 and beyond.

The Board continues to take the issue of boardroom diversity seriously and believes maintaining an appropriate level of diversity is key to its effective performance. Accordingly, the Committee's focus on diversity has resulted in strengthening the Board's composition by gender, nationality, skill set and industry experience over recent years. Reporting has been enhanced in this area, on pages 82-88. The New Code requires us to build on this work by overseeing the development of a diverse pipeline for succession more broadly. While the Committee continuously strives to improve diversity, as evidenced on the Board, we recognise that we have more work to do within senior management [A]. At the end of 2018, 12.5% of our Executive Committee, about 24% of our senior leadership staff and around half of Shell's graduate recruits are female. Additionally, in Shell's key countries more than 50% of leaders are local nationals. While we are proud of these achievements, we will continue to strive for more. How we oversee diversity, particularly with respect to succession pipelines, will be a focus for the Committee in the year ahead.

[A] More information on gender diversity is given in "Our people" on pages 79-80.

The Committee was assisted during the year by Russell Reynolds, external global search firms whose main role was to propose suitable candidates. Russell Reynolds do not have any connection with the Company other than that of search consultants.

### **REMUNERATION COMMITTEE**

The Directors' Remuneration Report, which sets out the composition and work of the Remuneration Committee, the Directors' remuneration for 2018 and the Directors' Remuneration Policy which was approved by shareholders at the 2017 AGM, is on pages 119-147.

### **SHAREHOLDER COMMUNICATIONS**

The Board recognises the importance of two-way communication with the Company's shareholders. The Chair, the Deputy Chair and Senior Independent Director, the CEO, the CFO and the Executive Vice President Investor Relations each meet regularly with major shareholders and report the views of such shareholders to the Board. As well as the Company giving a balanced report of results and progress at each AGM, all shareholders have an opportunity to ask questions in person. Shareholders are also free to contact the Company directly at any time of the year via dedicated shareholder email addresses or via dedicated shareholder telephone numbers as given on the inside back cover of this Report. Shell's website at [www.shell.com/investor](http://www.shell.com/investor) contains information for institutional and retail shareholders alike.

The Company's Registrar, Equiniti, operates an internet access facility for registered shareholders, providing details of their shareholdings at [www.shareview.co.uk](http://www.shareview.co.uk). Facilities are also provided for shareholders to lodge proxy appointments electronically. The Company's Corporate Nominee service, facilitated by Equiniti, provides a facility for investors to hold their shares in the Company in paperless form.

## RESULTS PRESENTATIONS AND ANALYSTS' MEETINGS

The planned dates of the quarterly, half-yearly and annual results presentations, as well as all major analysts' meetings, are announced in advance on the Shell website and through a regulatory release. Generally, presentations are broadcast live via webcast and teleconference. Other meetings with analysts or investors are not normally announced in advance, nor can they be followed remotely by webcast or any other means. Procedures are in place to ensure that discussions in such meetings are always limited to non-material information or information already in the public domain.

Results and meeting presentations can be found at [www.shell.com/investor](http://www.shell.com/investor). This is in line with the requirement to ensure that all shareholders and other parties in the financial market have equal and simultaneous access to information that may influence the price of the Company's securities.

## NOTIFICATION OF MAJOR SHAREHOLDINGS

Information concerning notifications of major shareholdings can be found on page 257.

## RESPONSIBILITY FOR PREPARING THE ANNUAL REPORT AND ACCOUNTS

Information concerning the responsibility for preparing the Annual Report and Accounts can be found on page 91.

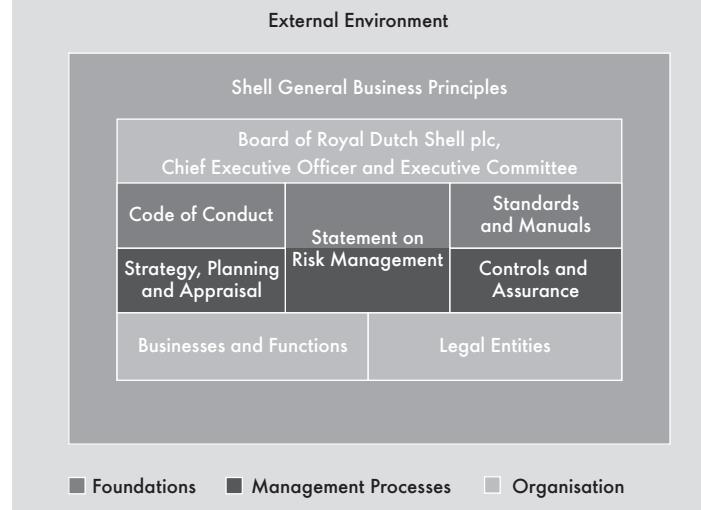
## CONTROLS AND PROCEDURES

The Board is responsible for maintaining a sound system of risk management and internal control, and for regularly reviewing its effectiveness. It has delegated authority to the Audit Committee to assist it in fulfilling its responsibilities in relation to internal control and financial reporting (see "Audit Committee Report" on pages 113-118).

A single overall control framework is in place for the Company and its subsidiaries that is designed to manage rather than eliminate the risk of failure to achieve business objectives. It therefore only provides a reasonable and not an absolute assurance against material misstatement or loss.

The diagram below illustrates the control framework's key components: "Foundations", "Management Processes" and "Organisation". "Foundations" comprises the objectives, principles and rules that underpin and establish boundaries for Shell's activities. "Management Processes" refers to the more significant management processes, including how strategy, planning and appraisal are used to improve performance and how risks are to be managed through effective controls and assurance. "Organisation" sets out how the various legal entities relate to each other and how their business activities are organised and managed, and how authority is delegated.

## Control framework



The system of risk management and internal control over financial reporting is an integral part of the control framework. Regular reviews are performed to identify the significant risks to financial reporting and the key controls designed to address them. These controls are documented, responsibility is assigned, and they are monitored for design and operating effectiveness. Controls found not to be effective are remediated. The principal risks faced by Shell are set out in "Risk factors" on pages 15-20.

The Board has conducted its annual review of the effectiveness of Shell's system of risk management and internal control, including financial, operational and compliance controls.

Shell has a variety of processes for obtaining assurance on the adequacy of risk management and internal control and implements a broad array of measures to manage its various risks which are set out in the relevant sections of this Report. There are also risks that Shell accepts or does not seek to fully mitigate. The Executive Committee and the Board regularly consider group-level risks and associated control mechanisms.

The Company has developed a risk appetite framework that reflects three distinct lenses: Strategic Risk Appetite, Operational Risk Appetite and Conduct Risk Appetite. These three lenses aim to capture the range and variety of risks that the Company will be exposed to, with specific risk appetite parameters identified and monitored for each lens.

The Strategic Risk Appetite lens is focused on current and future portfolio considerations, taking into account parameters such as country concentration or exposure to higher-risk countries. It also considers "long range" developments to monitor key assumptions or beliefs in relation to energy markets. The Operational Risk Appetite lens is focused on more material operational exposures and promotes both a more granular assessment of key risks that the organisation faces and the purposeful assessment of risk appetite. The Conduct Risk Appetite lens brings together a number of leading and lagging risk indicators, which help to provide a more holistic view of the culture of the organisation.

The financial framework sets certain boundary conditions in the consideration of risk appetite, as the financial resilience of the Company should logically inform the aggregate level of risk appetite that could be sustained.

Shell has a climate change risk management structure in place which is supported by standards, policies and controls (see "Risk factors" on page 16 and "Climate change and energy transition" on pages 71-78). Climate change and risks resulting from greenhouse gas emissions have been identified as significant risk factors for Shell and are managed in accordance with other significant risks through the Board and Executive Committee.

Many of our major projects and operations are conducted in joint arrangements or associates, which may reduce the degree of control and ability to identify and manage risks (see "Risk factors" on page 19). In each case, Shell appoints a representative to manage its interests who seeks to ensure that such projects operate under equivalent standards to Shell.

We operate in more than 70 countries that have differing degrees of political, legal and fiscal stability. This exposes us to a wide range of political developments that could result in changes to contractual terms, laws and regulations. In addition, we and our joint arrangements and associates face the risk of litigation and disputes worldwide (see "Risk factors" on page 17). We continuously monitor geopolitical developments and societal issues relevant to our interests. Employees who engage with government officials are subject to specific training programmes, procedures and regular communications, in addition to Shell General Business Principles and Shell Code of Conduct compliance. We are prepared to exit a country if we believe we can no longer operate in that country in accordance with our standards and applicable law, and we have done so in the past.

The Board confirms that there is a robust process for identifying, evaluating and managing the principal risks. Further, the Board carries out a robust assessment of the Company's emerging risks, the procedures in place to identify the emerging risks, and how the risks are being managed or mitigated to the achievement of Shell's objectives. This has been in place throughout 2018 and up to the date of this Report and is regularly reviewed by the Board and accords with the FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting.

### MANAGEMENT'S EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES OF SHELL

As indicated in the certifications in Exhibits 12.1 and 12.2 of this Report, Shell's CEO and CFO have evaluated the effectiveness of Shell's disclosure controls and procedures at December 31, 2018. Based on that evaluation, they concluded that Shell's disclosure controls and procedures are effective.

### MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING OF SHELL

Management, including the CEO and CFO, is responsible for establishing and maintaining adequate internal control over Shell's financial reporting and the preparation of the "Consolidated Financial Statements". It conducted an evaluation of the effectiveness of Shell's internal control over financial reporting and the preparation of the "Consolidated Financial Statements" based on the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the

Treadway Commission (COSO). On the basis of this evaluation, management concluded that, at December 31, 2018, the Company's internal control over financial reporting and the preparation of the "Consolidated Financial Statements" was effective.

Ernst & Young LLP, the independent registered public accounting firm that audited the "Consolidated Financial Statements", has issued an attestation report on the Company's internal control over financial reporting, as stated in its report on page 166.

### THE TRUSTEE'S AND MANAGEMENT'S EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES FOR THE ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST

The Trustee of the Royal Dutch Shell Dividend Access Trust (the Trustee) and Shell's CEO and CFO have evaluated the effectiveness of the disclosure controls and procedures in respect of the Dividend Access Trust (the Trust) at December 31, 2018. On the basis of this evaluation, these officers have concluded that the disclosure controls and procedures of the Trust are effective.

### THE TRUSTEE'S AND MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING OF THE ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST

The Trustee and the Company's management are responsible for establishing and maintaining adequate internal control over the Trust's financial reporting. The Trustee and the Company's management conducted an evaluation of the effectiveness of internal control over financial reporting based on the Internal Control - Integrated Framework (2013) issued by COSO. On the basis of this evaluation, the Trustee and management concluded that, at December 31, 2018, the Trust's internal control over financial reporting was effective.

Ernst & Young LLP, the independent registered public accounting firm that audited the Trust's financial statements, has issued an attestation report on the Trustee's and management's internal control over financial reporting, as stated in its report on page 249.

### CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There has not been any change in the internal control over financial reporting of Shell or the Trust that occurred during the period covered by this Report that has materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of Shell or the Trust. Material financial information of the Trust is included in the "Consolidated Financial Statements" and is therefore subject to the same disclosure controls and procedures as Shell. See the "Royal Dutch Shell Dividend Access Trust Financial Statements" on pages 251-255 for additional information.

### ARTICLES OF ASSOCIATION

The following summarises certain provisions of the Articles [A] and of the applicable corporate legislation, including the Act (the legislation). This summary is qualified in its entirety by reference to the Articles and the Act. The information provided under this section is applicable to the Articles, which were in effect during the 2018 financial year to which this Report relates. At the 2019 AGM, shareholders will be asked to consider, and if in agreement, approve the new Articles. An overview of the proposed changes will be published in the 2019 Notice of AGM.

A full comparison document highlighting all proposed modifications to the Articles will be made available at [www.shell.com/investor](http://www.shell.com/investor) and within the Annual General Meeting area.

[A] A copy of the Articles has been previously filed with the SEC and is incorporated by reference as an exhibit to this Report. It can be found at [www.shell.com](http://www.shell.com).

## MANAGEMENT AND DIRECTORS

The Company has a single-tier Board of Directors headed by a Chair, with management led by a CEO. See "Board structure and composition" on page 97.

### Number of Directors

The Articles provide that the Company must have a minimum of three and can have a maximum of 20 Directors (disregarding alternate directors), but these restrictions can be changed by the Board.

### Directors' shareholding qualification

The Directors are not required to hold any shares in the Company [A]. [A] While the Articles do not require Directors to hold shares in the Company, the Remuneration Committee believes that Executive Directors should align their interests with those of shareholders by holding shares in the Company. The CEO is expected to build up a shareholding of seven times his base salary over five years from appointment and other Executive Directors are expected to build up a shareholding of four times their base salary over the same period. Non-executive Directors are encouraged to hold shares with a value equivalent to 100% of their fixed annual fee and maintain that holding during their tenure. All Directors hold shares and such interests can be found in the "Directors' Remuneration Report" on pages 135-136.

### Appointment of Directors

The Company can, by passing an ordinary resolution, appoint any willing person to be a Director.

The Board can appoint any willing person to be a Director. Any Director appointed in this way must retire from office at the first AGM after his appointment. A Director who retires in this way is then eligible for reappointment.

At the general meeting at which a Director retires, shareholders can pass an ordinary resolution to reappoint the Director or to appoint some other eligible person in their place.

The only people who can be appointed as Directors at a general meeting are the following: (i) Directors retiring at the meeting; (ii) anyone recommended by a resolution of the Board; and (iii) anyone nominated by a shareholder (not being a person to be nominated), where the shareholder is entitled to vote at the meeting and delivers to the Company's registered office, not less than six but not more than 21 days before the day of the meeting, a letter stating that he intends to nominate another person for appointment as a Director and written confirmation from that person that he is willing to be appointed.

### Retirement of Directors

Under the Articles, at every AGM, the following Directors must retire from office: (i) any Director who has been appointed by the Board since the last AGM; (ii) any Director who held office at the time of the two preceding AGMs and who did not retire at either of them; and (iii) any Director who has been in office, other than as a Director holding an executive position, for a continuous period of nine years or more at the date of the meeting.

Notwithstanding the Articles, the Company complies with the Code which contains, among other matters, provisions regarding the composition of the

Board and re-election of the Directors. As a result, the Company's current policy is that Directors are subject to annual re-election by shareholders.

Any Director who retires at an AGM may offer themselves for reappointment by the shareholders.

### Removal of Directors

In addition to any power to remove Directors conferred by the legislation, the Company can pass a special resolution to remove a Director from office, even though his time in office has not ended, and can appoint a person to replace a Director who has been removed in this way by passing an ordinary resolution.

### Vacation of office by Directors

Any Director automatically stops being a Director if: (i) he gives the Company a written notice of resignation; (ii) he gives the Company a written notice in which he offers to resign and the Board decides to accept this offer; (iii) all of the other Directors (who must comprise at least three people) pass a resolution or sign a written notice requiring the Director to resign; (iv) he is or has been suffering from mental or physical ill-health and the Board passes a resolution removing the Director from office; (v) he has missed Directors' meetings (whether or not an alternate director appointed by him attends those meetings) for a continuous period of six months without permission from the Board and the Board passes a resolution removing the Director from office; (vi) a bankruptcy order is made against him or he makes any arrangement or composition with his creditors generally; (vii) he is prohibited from being a Director under the legislation; or (viii) he ceases to be a Director under the legislation or he is removed from office under the Articles. If a Director stops being a Director for any reason, he will also automatically cease to be a member of any committee or sub-committee of the Board.

### Alternate directors

Any Director can appoint any person (including another Director) to act in his place as an alternate director. That appointment requires the approval of the Board, unless previously approved by the Board or unless the appointee is another Director.

### Proceedings of the Board

Meetings of the Board will usually be held in the Netherlands but the Board may decide in each case when and where to have meetings and how they will be conducted. The Board can also adjourn its meetings. If no other quorum is fixed by the Board, two Directors are a quorum. A Directors' meeting at which a quorum is present can exercise all the powers and discretions of the Board.

All or any of the Directors can take part in a meeting of the Directors by way of a conference telephone or any communication equipment which allows everybody to take part in the meeting by being able to hear each of the other people at the meeting and by being able to speak to all of them at the same time. A person taking part in this way will be treated as being present at the meeting and will be entitled to vote and be counted in the quorum. Any such meeting will be deemed to take place where the largest group of Directors participating is assembled or, if there is no such group, where the Chair of the meeting then is located.

The Board can appoint any Director as Chair or as deputy Chair and can remove him from that office at any time. Matters to be decided at a

## **Corporate governance** Continued

Directors' meeting will be decided by a majority vote. If votes are equal, the Chair of the meeting has a second, casting vote.

The Board will manage the Company's business. It can use all the Company's powers, except where the Articles or the legislation say that powers can only be used by shareholders voting to do so at a general meeting. The Board is, however, subject to the provisions of the legislation, the requirements of the Articles and any regulations laid down by the shareholders by passing a special resolution at a general meeting.

The Board can exercise the Company's powers: (i) to borrow money; (ii) to guarantee; (iii) to indemnify; (iv) to mortgage or charge all or any of the Company's undertaking, property and assets (present and future) and uncalled capital; (v) to issue debentures and other securities; and (vi) to give security, either outright or as collateral security, for any debt, liability or obligation of the Company or of any third party. The Board must limit the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiary undertakings so as to ensure that no money is borrowed if the total amount of the group's borrowings (as defined in the Articles) then exceeds, or would as a result of such borrowing exceed, two times the Company's adjusted capital and reserves (as defined in the Articles). Shareholders may pass an ordinary resolution allowing borrowings to exceed such limit.

The Board can delegate any of its powers or discretions to committees of one or more persons. Any committee must comply with any regulations laid down by the Board. These regulations can require or allow people who are not Directors to be members of the committee, and can give voting rights to such people but there must be more Directors on a committee than persons who are not Directors and a resolution of the committee is only effective if a majority of the members of the committee present at the time of the resolution were Directors.

### **Fees**

The total fees paid to all of the Directors (excluding any payments made under any other provision of the Articles) must not exceed €4,000,000 a year or any higher sum decided on by an ordinary resolution at a general meeting. It is for the Board to decide how much to pay each Director by way of fees.

The Board, or any committee authorised by the Board, can award extra fees to any Director who, in its view, performs any special or extra services for the Company. The extra fees can take the form of salary, commission, profit-sharing or other benefits (and can be paid partly in one way and partly in another).

The Company can pay the reasonable travel, hotel and incidental expenses of each Director incurred in attending and returning from general meetings, meetings of the Board or committees of the Board or any other meetings which, as a Director, he is entitled to attend. The Company will pay all other expenses properly and reasonably incurred by each Director in connection with the Company's business or in the performance of his duties as a Director. The Company can also fund a Director's or former Director's expenditure and that of a Director or former Director of any holding company of the Company for the purposes permitted by the legislation and can do anything to enable a Director or former Director of the Company or any holding company of the Company to avoid incurring such expenditure all as provided in the legislation.

### **Pensions and gratuities**

The Board or any committee authorised by the Board can decide whether to provide pensions, annual payments or other benefits to any Director or former Director, or any relation or dependant of, or person connected to, such a person. The Board can also decide to contribute to a scheme or fund or to pay premiums to a third party for these purposes. The Company can only provide pensions and other benefits to people who are or were Directors but who have not been employed by or held an office or executive position in the Company or any of its subsidiary undertakings or former subsidiary undertakings or any predecessor in business of the Company or any such other company or to relations or dependants of, or persons connected to, these Directors or former Directors if the shareholders approve this by passing an ordinary resolution.

### **Directors' interests**

#### **Conflicts of interest requiring authorisation by Directors**

The Board may, subject to the relevant quorum and voting requirements, authorise any matter which would otherwise involve a Director breaching his duty under the legislation to avoid conflicts of interest. A Director seeking authorisation in respect of such a conflict of interest must tell the Board the nature and extent of his interest in the conflict of interest as soon as possible. The Director must give the Board sufficient details of the relevant matter to enable it to decide how to address the conflict of interest, together with any additional information which it may request.

Any Director (including the relevant Director) may propose that the relevant Director be authorised in relation to any matter which is the subject of such a conflict of interest. Such proposal and any authority given by the Board shall be effected in the same way as any other matter may be proposed to and resolved upon by the Board except that: (i) the relevant Director and any other Director with a similar interest will not count in the quorum and will not vote on a resolution giving such authority; and (ii) the conflicted Director and any other Director with a similar interest may, if the other members of the Board so decide, be excluded from any meeting of the Board while the conflict of interest is under consideration.

Where the Board gives authority in relation to a conflict of interest or where any of the situations described in (i) to (v) of "Other conflicts of interest" below applies in relation to a Director: (i) the Board may (whether at the relevant time or subsequently) (a) require that the relevant Director is excluded from the receipt of information, the participation in discussion and/or the making of decisions related to the conflict or the situation and (b) impose upon the relevant Director such other terms for the purpose of dealing with the conflict or situation as they think fit; (ii) the relevant Director will be obliged to conduct himself in accordance with any terms imposed by the Board in relation to the conflict or situation; (iii) the Board may also provide that, where the relevant Director obtains (other than through his position as a Director of the Company) information that is confidential to a third party, the Director will not be obliged to disclose that information to the Company, or to use or apply the information in relation to the Company's affairs, where to do so would amount to a breach of that confidence; (iv) the terms of the authority shall be recorded in writing (but the authority shall be effective whether or not the terms are so recorded); and (v) the Board may revoke or vary such authority at any time but this will not affect anything done by the relevant Director prior to such revocation in accordance with the terms of such authority.

### **Other conflicts of interest**

If a Director knows that he is in any way directly or indirectly interested in a proposed contract with the Company or a contract that has been entered into by the Company, he must tell the other Directors of the nature and extent of that interest in accordance with the legislation. If he has so disclosed the nature and extent of his interest, a Director can do one or more of the following: (i) have any kind of interest in a contract with or involving the Company or another company in which the Company has an interest; (ii) hold any other office or place of profit with the Company (except that of auditor) in conjunction with his office of Director for such period and upon such terms, including as to remuneration, as the Board may decide; (iii) alone, or through a firm with which he is associated, do paid professional work for the Company or another company in which the Company has an interest (other than as auditor); (iv) be or become a Director or other officer of, or employed by or otherwise be interested in, any holding company or subsidiary company of the Company or any other company in which the Company has an interest; and (v) be or become a Director of any other company in which the Company does not have an interest and which cannot reasonably be regarded as giving rise to a conflict of interest at the time of his appointment as a Director of that other company.

### **Benefits**

A Director does not have to hand over to the Company or its shareholders any benefit he receives or profit that he makes as a result of any matter which would otherwise involve a direct breach of his duty under the legislation to avoid conflicts of interest but which has been authorised or anything allowed under (i) to (v) of "Other conflicts of interest" above, nor is any type of contract so authorised or so allowed liable to be avoided.

### **Quorum and voting requirements**

Subject to certain exceptions, a Director cannot vote or be counted in the quorum on a resolution of the Board relating to appointing that Director to a position with the Company or a company in which the Company has an interest or the terms or the termination of the appointment and a Director cannot vote or be counted in the quorum on a resolution of the Board about a contract in which he has an interest and, if he does vote, his vote will not be counted.

The Company can, by ordinary resolution, suspend or relax the provisions of the relevant article in the Articles to any extent or ratify any contract which has not been properly authorised in accordance with that relevant article.

### **Directors' indemnities**

As far as the legislation allows this, the Company can indemnify any Director or former Director of the Company, of any associated company or of any affiliate against any liability and can purchase and maintain insurance against any liability for any Director or former Director of the Company, of any associated company or of any affiliate. A Director or former Director of the Company, of any associated company or of any affiliate will not be accountable to the Company or the shareholders for any benefit so provided. Anyone receiving such a benefit will not be disqualified from being or becoming a Director of the Company.

### **RIGHTS ATTACHING TO SHARES**

The Company can issue shares with any rights or restrictions attached to them as long as this is not restricted by any rights attached to existing

shares. These rights or restrictions can be decided either by an ordinary resolution passed by the shareholders or by the Board as long as there is no conflict with any resolution passed by the shareholders.

### **Dividends**

Currently, only A shares and B shares are entitled to a dividend.

Under the legislation, dividends are payable only out of profits available for distribution, as determined in accordance with the Act and under IFRS.

Subject to the Act, if the Directors consider that the Company's financial position justifies the payment of a dividend, the Company can pay a fixed or other dividend on any class of shares on the dates prescribed for the payments of those dividends and pay interim dividends on shares of any class of any amounts and on any dates and for any periods which it decides. Shareholders can declare dividends in accordance with the rights of shareholders by passing an ordinary resolution, although such dividends cannot exceed the amount recommended by the Board.

Dividends are payable to persons registered as the holder(s) of shares, or to anyone entitled in any other way, at a particular time on a particular day selected by the Board. All dividends will be declared and paid in proportions based on the amounts paid up on the relevant shares during any period for which that dividend is paid.

Any dividend or other money payable in cash relating to a share can be paid by sending a cheque, warrant or similar financial instrument payable to the shareholder entitled to the dividend by post to the shareholder's registered address. Alternatively, it can be made payable to someone else named in a written instruction from the shareholder (or all joint shareholders) and sent by post to the address specified in that instruction. A dividend can also be paid by inter-bank transfer or by other electronic means (including payment through CREST) directly to an account with a bank or other financial institution (or another organisation operating deposit accounts if allowed by the Company) named in a written instruction from the person entitled to receive the payment under the Articles. Such an account must be held at an institution based in the UK, unless the share on which the payment is to be made is held by Euroclear Nederland and is subject to the Dutch Securities Giro Act ("Wet giraal effectenverkeer"). Alternatively, a dividend can be paid in some other way if requested in writing by a shareholder (or all joint shareholders) and agreed with the Company. The Company will not be responsible for a payment which is lost or delayed. Unless the rights attached to any shares, the terms of any shares or the Articles say otherwise, a dividend or any other money payable in respect of a share can be declared and paid in whatever currency or currencies the Board decides using an exchange rate or exchange rates selected by the Board for any currency conversions required. The Board can also decide how any costs relating to the choice of currency will be met. The Board can offer shareholders the choice to receive dividends and other money payable in respect of their shares in alternative currencies on such terms and conditions as the Board may prescribe from time to time. Where any dividends or other amounts payable on a share have not been claimed, the Board can invest them or use them in any other way for the Company's benefit until they are claimed. The Company will not be a trustee of the money and will not be liable to pay interest on it. If a dividend or other money has not been claimed for 12 years after being declared or becoming due for payment, it will be forfeited and go back to the Company, unless the Board decides otherwise.

The Company expects that dividends in respect of B shares will be paid under the dividend access mechanism described below. Currently, the Articles provide that if any amount paid by way of dividend by a subsidiary of the Company is received by the dividend access trustee on behalf of any holder of B shares and paid by the dividend access trustee to such holder, the entitlement of such holder of B shares to be paid any dividend declared pursuant to the Articles will be reduced by the corresponding amount that has been paid by the dividend access trustee to such holder. If a dividend is declared pursuant to the Articles and the entitlement of any holder of B shares to be paid his pro rata share of such dividend is not fully extinguished on the relevant payment date by virtue of a payment made by the dividend access trustee, the Company has a full and unconditional obligation to make payment in respect of the outstanding part of such dividend entitlement immediately. Where amounts are paid by the dividend access trustee in one currency and a dividend is declared by the Company in another currency, the amounts so paid by the dividend access trustee will, for the purposes of the comparison required by the two immediately preceding sentences, be converted into the currency in which the Company has declared the dividend at such rate as the Board shall consider appropriate. For the purposes of the provisions referred to in this paragraph, the amount that the dividend access trustee has paid to any holder of B shares in respect of any particular dividend paid by a subsidiary of the Company (a "specified dividend") will be deemed to include: (i) any amount that the dividend access trustee may be compelled by law to withhold; (ii) a pro rata share of any tax that the subsidiary paying the specified dividend is obliged to withhold or to deduct from the same; and (iii) a pro rata share of any tax that is payable by the dividend access trustee in respect of the specified dividend.

The Board can offer shareholders of ordinary shares (excluding any shareholder holding shares as treasury shares) the right to choose to receive extra ordinary shares, which are credited as fully paid up, instead of some or all of their cash dividend. Before the Board can do this, shareholders must have passed an ordinary resolution authorising the Board to make this offer.

### Dividend access mechanism for B shares

#### General

A and B shares are identical, except for the dividend access mechanism, which will only apply to B shares. Dividends paid on A shares have a Dutch source for tax purposes and are subject to Dutch withholding tax.

It is the expectation and the intention, although there can be no certainty, that holders of B shares will receive dividends through the dividend access mechanism. Any dividends paid on the dividend access shares will have a UK source for UK and Dutch tax purposes. There will be no Dutch withholding tax on such dividends. For further details regarding the tax treatment of dividends paid on the A and B shares and American Depository Shares (ADSs), refer to "Shareholder information" on pages 260-261.

#### Description of dividend access mechanism

The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited (Shell Transport), and BG Group plc, now BG Group Limited (BG), have each issued a dividend access share to Computershare Trustees (Jersey) Limited as Trustee. Pursuant to a declaration of trust, the Trustee will hold any dividends paid in respect of the dividend access shares on trust for the holders of B shares and will arrange for prompt disbursement of such dividends to holders of B shares. Interest and other

income earned on unclaimed dividends will be for the account of Shell Transport and BG and any dividends which are unclaimed after 12 years will revert to Shell Transport and BG, as appropriate. Holders of B shares will not have any interest in either dividend access share and will not have any rights against Shell Transport and BG as issuers of the dividend access shares. The only assets held on trust for the benefit of the holders of B shares will be dividends paid to the Trustee in respect of the dividend access shares.

The declaration and payment of dividends on the dividend access shares will require board action by Shell Transport and BG (as applicable) and will be subject to any applicable limitations in law or in the Shell Transport or BG (as appropriate) articles of association in effect. In no event will the aggregate amount of the dividend paid by Shell Transport and BG under the dividend access mechanism for a particular period exceed the aggregate of the dividend announced by the Board of the Company on B shares in respect of the same period (after giving effect to currency conversions).

In particular, under their respective articles of association, Shell Transport and BG are each only able to pay a dividend on their respective dividend access share which represents a proportional amount of the aggregate of any dividend announced by the Company on the B shares in respect of the relevant period, where such proportions are calculated by reference to, in the case of Shell Transport, the number of B shares in existence prior to completion of the Company's acquisition of BG (the Acquisition) and, in the case of BG, the number of B shares issued as part of the Acquisition, in each case as against the total number of B shares in issue immediately following completion of the Acquisition.

#### Operation of the dividend access mechanism

If, in connection with the announcement of a dividend by the Company on B shares, the Board of Shell Transport and/or the Board of BG elects to declare and pay a dividend on their respective dividend access shares to the Trustee, the holders of B shares will be beneficially entitled to receive their share of those dividends pursuant to the declaration of trust (and arrangements will be made to ensure that the dividend is paid in the same currency in which they would have received a dividend from the Company).

If any amount is paid by Shell Transport or BG by way of a dividend on the dividend access shares and paid by the Trustee to any holder of B shares, the dividend which the Company would otherwise pay on B shares will be reduced by an amount equal to the amount paid to such holders of B shares by the Trustee.

The Company will have a full and unconditional obligation, in the event that the Trustee does not pay an amount to holders of B shares on a cash dividend payment date (even if that amount has been paid to the Trustee), to pay immediately the dividend announced on B shares. The right of holders of B shares to receive distributions from the Trustee will be reduced by an amount equal to the amount of any payment actually made by the Company on account of any dividend on B shares.

If for any reason no dividend is paid on the dividend access shares, holders of B shares will only receive dividends from the Company directly. Any payment by the Company will be subject to Dutch withholding tax (unless an exemption is obtained under Dutch law or under the provisions of an applicable tax treaty).

The Dutch tax treatment of dividends paid under the dividend access mechanism has been confirmed by the Dutch Revenue Service in an agreement ("vaststellingsovereenkomst") with the Company and N.V. Koninklijke Nederlandsche Petroleum Maatschappij (Royal Dutch Petroleum Company) dated October 26, 2004, as supplemented and amended by an agreement between the same parties dated April 25, 2005, and a final settlement agreement in connection with the Acquisition dated November 9, 2015. The agreements state, among other things, that dividend distributions on the dividend access shares by Shell Transport and/or BG will not be subject to Dutch withholding tax provided that the dividend access mechanism is structured and operated substantially as set out above.

The Company may not extend the dividend access mechanism to any future issuances of B shares without prior consultation with the Dutch Revenue Service.

Accordingly, the Company would not expect to issue additional B shares unless confirmation from the Dutch Revenue Service was obtained or the Company were to determine that the continued operation of the dividend access mechanism was unnecessary. Any further issue of B shares is subject to advance consultation with the Dutch Revenue Service.

The dividend access mechanism may be suspended or terminated at any time by the Company's Directors or the Directors of Shell Transport or BG, for any reason and without financial recompense. This might, for instance, occur in response to changes in relevant tax legislation.

The daily operations of the Trust are administered on behalf of the Company by the Trustee. Material financial information of the Trust is included in the "Consolidated Financial Statements" and is therefore subject to the same disclosure controls and procedures as Shell.

#### **Pre-emption rights**

Subject to the Act and the Listing Rules published by the UK's Financial Conduct Authority (FCA), any equity securities allotted by the Company for cash must first be offered to shareholders in proportion to their holdings. The Act and the Listing Rules allow for the disapplication of pre-emption rights which may be waived by a special resolution of the shareholders, either generally or specifically.

#### **Voting**

Currently, only the A and B shares have voting rights.

#### **Changing the rights attached to the shares**

The Act provides that the Articles can be amended by a special resolution.

The Articles provide that, if the legislation allows this, the rights attached to any class of shares can be changed if this is approved either in writing by shareholders holding at least three-quarters of the issued shares of that class by amount (excluding any shares of that class held as treasury shares) or by a special resolution passed at a separate meeting of the relevant shareholders. At each such separate meeting, all of the provisions of the Articles relating to proceedings at a general meeting apply, except that: (i) a quorum will be present if at least one shareholder who is entitled to vote is present in person or by proxy who owns at least one-third in amount of the issued shares of the relevant class; (ii) any shareholder who is present in person or by proxy and entitled to vote can demand a poll; and (iii) at an

adjourned meeting, one person entitled to vote and who holds shares of the class, or his proxy, will be a quorum. These provisions are not more restrictive than required by law in England.

If new shares are created or issued which rank equally with any other existing shares, the rights of the existing shares will not be regarded as changed or abrogated unless the terms of the existing shares expressly say otherwise.

#### **Redemption provisions**

The Company's shares are not subject to any redemption provisions.

#### **Rights attaching to the sterling deferred shares**

The sterling deferred shares are (unlike the A and B shares) not ordinary shares and, therefore, they have different rights and restrictions.

The sterling deferred shares have the following rights and restrictions: (i) on a distribution of assets of the Company among its shareholders on a winding-up, the holders of the sterling deferred shares will be entitled (such entitlement ranking in priority to the rights of holders of ordinary shares) to receive an amount equal to the aggregate of the capital paid up or credited as paid up on each sterling deferred share; (ii) save as provided in (i), the holders of the sterling deferred shares will not be entitled to any participation in the profits or assets of the Company; (iii) the holders of sterling deferred shares will not be entitled to receive notice of or to attend and/or speak or vote (whether on a show of hands or on a poll) at general meetings of the Company; (iv) the written consent of the holders of three-quarters in nominal value of the issued sterling deferred shares or the sanction of a special resolution passed at a separate general meeting of the holders of the sterling deferred shares is required if the special rights and privileges attaching to the sterling deferred shares are to be abrogated, or adversely varied or otherwise directly adversely affected in any way (the creation, allotment or issue of shares or securities which rank in priority to or equally with the sterling deferred shares, or of any right to call for the allotment or issue of such shares or securities, is for these purposes deemed not to be an abrogation or variation or to have an effect on the rights and privileges attaching to sterling deferred shares); (v) all provisions of the Articles relating to general meetings of the Company will apply, with necessary modifications, to every general meeting of the holders of the sterling deferred shares; (vi) subject to the legislation, the Company will have the right at any time to redeem any such sterling deferred shares (provided that it is credited as fully paid) at a price not exceeding £1 for all the sterling deferred shares redeemed at any one time (to be paid on such date as the Board shall select as the date of redemption to such one of the holders, if more than one, as may be selected by lot) without the requirement to give notice to the holder(s) of the sterling deferred shares; (vii) if any holder of a sterling deferred share to be redeemed fails or refuses to surrender the share certificate(s) or indemnity for such sterling deferred share or if the holder selected by lot to receive the redemption monies fails or refuses to accept the redemption monies payable in respect of it, such sterling deferred share will, notwithstanding the foregoing, be redeemed and cancelled by the Company and, in the event of a failure or refusal to accept the redemption monies, the Company will retain such money and hold it on trust for the selected holder without interest, and, in each case, the Company will have no further obligation whatsoever to the holder of such sterling deferred share; and (viii) no sterling deferred share will be redeemed otherwise than out of distributable profits or the proceeds of

a fresh issue of shares made for the purposes of the redemption or out of capital to the extent permitted by the legislation.

### Calls on shares

The Board can call on shareholders to pay any money which has not yet been paid to the Company for their shares. This includes the nominal value of the shares and any premium which may be payable on those shares. The Board can also make calls on people who are entitled to shares by law.

### Winding-up of the Company

If the Company is voluntarily wound up, the liquidator can distribute to shareholders any assets remaining after the liquidator's fees and expenses have been paid and all sums due to prior-ranking creditors (as defined under the laws of England) have been paid.

### Sinking fund provisions

The shares are not subject to any sinking fund provision under the Articles or as a matter of the laws of England.

### Discriminating provisions

There are no provisions in the Articles discriminating against a shareholder because of his ownership of a particular number of shares.

### Limitations on rights to own shares

There are no limitations imposed by the Articles or the legislation on the rights to own shares, including the right of non-residents or foreign persons to hold or vote shares, other than limitations that would generally apply to all shareholders.

### Transfer of shares

There are no significant restrictions on the transfer of shares.

Except as set out below, any shareholder can transfer some or all of his certificated shares to another person. A transfer of certificated shares must be made in writing and either in the usual standard form or in any other form approved by the Board.

Except as set out below, any shareholder can transfer some or all of his CREST shares to another person. A transfer of CREST shares must be made through CREST and must comply with the uncertificated securities rules.

The Board can refuse to register the transfer of any shares which are not fully paid. Further rights to decline registration are as follows:

### Certificated shares

A share transfer form cannot be used to transfer more than one class of share. Each class needs a separate form. Transfers cannot be in favour of more than four joint holders. The share transfer form must be properly stamped to show payment of any applicable stamp duty or certified or otherwise shown to the satisfaction of the Board to be exempt from stamp duty and must be delivered to the Company's registered office, or any other place decided on by the Board. The transfer form must be accompanied by the share certificate relating to the share being transferred, unless the transfer is being made by a person to whom the Company was not required to, and did not send, a certificate. The Board can also ask (acting reasonably) for any other evidence to show that the person wishing to transfer the share is entitled to do so and, if the share transfer form is signed

by another person on behalf of the person making the transfer, evidence of the authority of that person to do so.

### CREST shares

Registration of a transfer of CREST shares can be refused in the circumstances set out in the uncertificated securities rules. Transfers cannot be in favour of more than four joint holders.

Where a share has not yet been entered on the register, the Board can recognise a renunciation by that person of his right to the share in favour of some other person. Such renunciation will be treated as a transfer and the Board has the same powers of refusing to give effect to such a renunciation as if it were a transfer.

### Partly paid shares

The Articles provide that, if a shareholder fails to pay the Company any amount due on his partly paid shares, the Board can enforce the Company's lien by selling all or any of the partly paid shares in any way they decide (subject to certain conditions).

### Change of control

There are no provisions in the Articles that would delay, defer or prevent a change of control.

### Capital changes

The conditions imposed by the Articles for changes in capital are not more stringent than those required by the applicable laws of England.

Disputes between a shareholder or ADS holder and Royal Dutch Shell plc, any subsidiary, Director or professional service provider

The Articles generally require that, except as noted below, all disputes: (i) between a shareholder in such capacity and the Company and/or its Directors, arising out of or in connection with the Articles or otherwise; (ii) so far as permitted by law, between the Company and any of its Directors in their capacities as such or as the Company's employees, including all claims made by the Company or on behalf of the Company against any or all of its Directors; (iii) between a shareholder in such capacity and the Company's professional service providers (which could include the Company's auditors, legal counsel, bankers and ADS depositaries); and/or (iv) between the Company and its professional service providers arising in connection with any claim within the scope of (iii) above, shall be exclusively and finally resolved by arbitration under the Rules of Arbitration of the International Chamber of Commerce (ICC), as amended from time to time. This would include all disputes arising under UK, Dutch or US law (including securities laws), or under any other law, between parties covered by the arbitration provision. Accordingly, the ability of shareholders to obtain monetary or other relief, including in respect of securities law claims, may be determined in accordance with these provisions, and the ability of shareholders to obtain monetary or other relief may therefore be limited and their cost of seeking and obtaining recoveries in a dispute may be higher than otherwise would be the case.

The tribunal shall consist of three arbitrators to be appointed in accordance with the ICC rules. The chairman of the tribunal must have at least 20 years' experience as a lawyer qualified to practise in a common-law jurisdiction which is within the Commonwealth (as constituted on May 12, 2005) and each other arbitrator must have at least 20 years' experience as a qualified

lawyer. The place of arbitration must be The Hague, the Netherlands; and the language of the arbitration must be English.

Pursuant to the exclusive jurisdiction provision in the Articles, if a court or other competent authority in any jurisdiction determines that the arbitration requirement described above is invalid or unenforceable in relation to any particular dispute in that jurisdiction, then that dispute may only be brought in the courts of England and Wales, as is the case with any derivative claim brought under the Act. The governing law of the Articles is the substantive law of England.

Disputes relating to the Company's failure or alleged failure to pay all or part of a dividend which has been announced and which has fallen due for payment will not be subject to the arbitration and exclusive jurisdiction provisions of the Articles. Any derivative claim brought under the Act will not be subject to the arbitration provisions of the Articles.

Pursuant to the relevant depositary agreement, each holder of ADSs is bound by the arbitration and exclusive jurisdiction provisions of the Articles as described in this section as if that holder were a shareholder.

## GENERAL MEETINGS

Under the applicable laws of England, the Company is required in each year to hold an AGM of shareholders in addition to any other meeting of shareholders that may be held. Each AGM must be held in the period six months from the date following the Company's accounting reference date. Additionally, shareholders may submit resolutions in accordance with Section 338 of the Act.

Directors have the power to convene a general meeting of shareholders at any time. In addition, Directors are required to call a general meeting once requests to do so have been received by the Company from shareholders representing at least 5% of such paid-up capital of the Company as carries voting rights at general meetings of the Company (excluding any paid-up capital held as treasury shares) pursuant to Section 303 of the Act. A request for a general meeting must state the general nature of the business to be dealt with at the meeting and must be authenticated by the requesting shareholders. If Directors fail to call such a meeting within 21 days from receipt of such requests, and on a date not more than 28 days after the date of the notice convening the meeting, the shareholders that requested the general meeting, or any of them representing more than half of the total voting rights of all shareholders that requested the meeting, may themselves convene a general meeting which must be called for a date not more than three months after the date upon which the Directors became subject to the requirement to call a general meeting. Any such meeting must be convened in the same manner, as nearly as possible, as that in which meetings are required to be convened by the Directors of the Company.

Under the Act, the Company is required to give at least 21 clear days' notice of any AGM or, except where the conditions in Section 307A of the Act apply, any other general meeting of the Company. In addition, the Company complies with the Code which currently states that notices of AGMs should be sent to shareholders at least 20 working days before the meeting.

The Articles require that, in addition to any requirements under the legislation, the notice for any general meeting must state where the meeting is to be held (the principal meeting place) and the location of any satellite meeting place,

which shall be identified as such in the notice as well as details of any arrangements made for those persons not entitled to attend a general meeting to be able to view and hear the proceedings (making it clear that participation in those arrangements will not amount to attendance at the meeting to which the notice relates). At the same time that notice is given for any general meeting, an announcement of the date, time and place of that meeting will, if practical, be published in a national newspaper in the Netherlands.

A shareholder is entitled to appoint a proxy (who is not required to be another shareholder) to represent and vote on behalf of the shareholder at any general meeting of shareholders, including the AGM, if a duly completed form of proxy has been received by the Company within the relevant deadlines (in general, where a poll is not demanded, 48 hours (or such shorter time as the Board decides) before the meeting).

Before a general meeting starts to do business, there must be a quorum present. Save as in relation to adjourned meetings, a quorum for all purposes is two people who are entitled to vote. They can be shareholders who are personally present, proxies for shareholders, or a combination of both. If a quorum is not present, a chairman of the meeting can still be chosen and this will not be treated as part of the business of the meeting.

If a quorum is not present within five minutes of the time fixed for a general meeting to start or within any longer period not exceeding one hour which the chairman of the meeting can decide, or if a quorum ceases to be present during a general meeting: (i) if the meeting was called by shareholders, it will be cancelled; (ii) any other meeting will be adjourned to a day (being not less than 10 days later, excluding the day on which it is adjourned and the day for which it is reconvened) with the time and place decided upon by the chairman of the meeting; and (iii) one shareholder present in person or by proxy and entitled to vote will constitute a quorum at any such adjourned general meeting and any notice of such an adjourned meeting will say this.

Notice of cancellation of a proxy's right to vote must be received at the Company's registered office (or other place specified by the Company for receipt) not later than the last time at which a proxy form should have been received to be valid for use at the meeting or on the holding of the poll at which the vote was given or the poll taken.

## DEEMED DELIVERY OF DOCUMENTS

Under the Articles, if any notice, document or other information is given, sent or supplied by the Company by inland post, it is treated as being received the day after it was posted if first class post (or a service similar to first class post) was used, or 72 hours after it was posted if first class post (or a service similar to first class post) was not used. If a notice or document is sent by the Company by airmail, it is treated as being received 72 hours after it was posted. Any notice, document or other information left at a shareholder's registered address or a postal address notified to the Company in accordance with the Articles by a shareholder or a person entitled to a share by law is treated as being received on the day on which it was left.

## THRESHOLD FOR DISCLOSURE OF SHARE OWNERSHIP

The Disclosure Guidance and Transparency Rules of the FCA impose an obligation on persons [A] to notify the Company of the percentage of voting rights held as a shareholder, or through the direct or indirect holding of financial

instruments, if the percentage of voting rights held in the Company reaches, exceeds or falls below 3% or any 1% threshold above 3%.

[A] For this purpose "persons" includes companies, natural persons, legal persons and partnerships.

As noted in the Articles, Section 793 of the Act governs the Company's right to investigate who has an interest in its shares. Under that section, a public company may give notice to any person it knows or has reasonable cause to believe is, or was at any time in the preceding three years, interested in its shares in order to obtain certain information about that interest.

The Articles provide that, when a person receives a statutory notice, he has 14 days to comply with it. If he does not do so or if he makes a statement in response to the notice which is false or inadequate in some important way, the Company can decide to restrict the rights relating to the identified shares and send out a further notice to the shareholder, known as a restriction notice, which will take effect when delivered. The restriction notice will state that the identified shares no longer give the shareholder any right to attend or vote either personally or by proxy at a shareholders' meeting or to exercise any right in relation to shareholders' meetings. Where the identified shares make up 0.25% or more (in amount or in number) of the existing shares of a class at the date of delivery of the restriction notice, the restriction notice can also contain the following further restrictions: (i) the Board can withhold any dividend or part of a dividend (including scrip dividend) or other money which would otherwise be payable in respect of the identified shares without any liability to pay interest when such money is finally paid to the shareholder; and (ii) the Board can refuse to register a transfer of any of the identified shares which are certificated shares unless the Board is satisfied that they have been sold outright to an independent third party (as specified in the Articles). Once a restriction notice has been given, the Board is free to cancel it or exclude any shares from it at any time the Board thinks fit. In addition, the Board must cancel the restriction notice within seven days of being satisfied that all of the information requested in the statutory notice has been given. Also, where any of the identified shares are sold and the Board is satisfied that they were sold outright to an independent third party, it must cancel the restriction notice within seven days of receipt of notification of the sale. The Articles do not restrict in any way the provision of the legislation which applies to failures to comply with notices under the legislation.

The UK City Code on Takeovers and Mergers (the Takeover Code) imposes disclosure obligations on parties subject to the Takeover Code's disclosure regime. The Takeover Code requires that an opening position disclosure be made by: (i) an offeror company after the announcement that first identifies it as an offeror and after the announcement that first identifies a competing securities exchange offeror; and (ii) an offeree company after the commencement of an offer period and, if later, after the announcement that first identifies any securities exchange offeror. An opening position disclosure must be made by any person that is interested in 1% or more of any class of relevant securities of the offeree company or any securities exchange offeror. The Takeover Code also requires any person who is, or becomes, interested in 1% or more of any class of relevant securities of an offeree company or any securities exchange offeror to make a dealing disclosure if the person deals in any relevant securities of the offeree company or any securities exchange offeror during an offer period. Where two or more persons act together pursuant to an agreement or understanding, whether formal or informal, to acquire or control an interest in relevant securities, they will normally be

deemed to be a single person for the purpose of the relevant provisions of the Takeover Code.

Rule 13d-1 of the US Securities Exchange Act of 1934 requires that a person or group that acquires beneficial ownership of more than 5% of equity securities registered under the US Securities Exchange Act, and that is not eligible to file a short-form report, disclose such information to the SEC within 10 days after the acquisition.

### FURTHER INFORMATION

The following information can be found at [www.shell.com/investor](http://www.shell.com/investor):

- the terms of reference of the Audit Committee, Corporate and Social Responsibility Committee, Nomination and Succession Committee and Remuneration Committee (these documents explain the Committees' roles and the authority the Board delegates to them);
- the full list of matters reserved to the Board for decision;
- Shell General Business Principles;
- Shell Code of Conduct;
- Code of Ethics for Executive Directors and Senior Financial Officers; and
- Articles of Association.

Signed on behalf of the Board

/s/ Linda M. Szymanski

**Linda M. Szymanski**  
Company Secretary  
March 13, 2019

# Audit Committee Report

Dear Shareholders,

I am pleased to present our annual Audit Committee Report 2018. I trust that this report will provide you with an insight into our work, the matters handled and the focus of the Audit Committee's (AC) deliberations during 2018. The AC assists the Board in fulfilling its oversight responsibilities in areas such as the integrity of financial reporting, the effectiveness of the risk management and internal control system and related governance and compliance matters. We are also responsible for making a recommendation to the Board on the appointment or reappointment of the external auditor.

In 2018, we discussed a variety of standing matters and areas of special focus including: plans to implement the new accounting standard IFRS 16 *Leases*; the impact of the European Union General Data Protection Regulation (EU GDPR); Shell's insurance arrangements; and information risk management. The AC visited the trading and supply office in London, which was a valuable interactive opportunity enabling us to enhance our understanding of this area through an open and constructive dialogue with management in charge of the different functional responsibilities. We received briefings from the Chief Internal Auditor on the effectiveness of Shell's risk management and internal control system and on outcomes of significant audits and notable control weaknesses, including potential improvements and mitigating actions agreed with management. Specific attention was given to topics that we considered particularly significant, including issues and judgements relating to Shell's 2018 Consolidated Financial Statements, as discussed in more detail later in this report together with how we addressed them. The independence of the external auditor was monitored in line with Shell's independence policy regarding the provision of services by the external auditor.

Ann Godbehere and I were pleased to represent the AC at the Board Day held in December 2018, where we engaged with some of our major shareholders to discuss the responsibilities of the AC, its areas of focus in 2018 and 2019 and the coverage provided by internal and external audit.

We considered the appropriateness of the viability statement and supported the development of Shell's statement in line with best practice guidance issued by the UK Financial Reporting Council (FRC). The AC also noted and considered external commentaries suggesting that viability statements should be extended beyond a period of three years. We concluded that the three-year period selected by the Board for the review of Shell's prospects, in line with the operating plan, remained suitable. The factors which we further considered in support of the viability statement are discussed later in this report.

In May 2018, Linda Stuntz stood down from the AC. I thank Linda for her service to the AC and for the invaluable input and perspective she provided as a member. Also in May, we were delighted to welcome Ann Godbehere to the Board and to the AC.

**Euleen Goh**  
Chair of the Audit Committee  
March 13, 2019

## COMPOSITION OF THE AUDIT COMMITTEE

During 2018, the members of the AC were Euleen Goh (Chair of the AC), Roberto Setubal, Linda G. Stuntz (who stood down as a member on May 22, 2018), Gerrit Zalm and Ann Godbehere (appointed as a member with effect from May 23, 2018), all of whom are financially literate, independent Non-executive Directors. In respect of the year ended December 31, 2018, for the purposes of the UK Corporate Governance Code, Euleen Goh and Ann Godbehere each qualify as: a person with "recent and relevant financial experience" and competence in accounting; and, for the purposes of US securities laws, each is an "audit committee financial expert". The AC had six meetings during the year; the AC members' attendances are shown on page 100. The experience of the AC members outlined on pages 82-87 demonstrates that the AC as a whole has competence relevant to the sector in which Shell operates, as well as the necessary commercial, regulatory, financial and audit expertise required to fulfil its responsibilities. The AC members have gained further knowledge and experience of the sector as a result of their Board membership and through various site visits since their respective appointments.

## RESPONSIBILITIES

The key responsibilities of the AC are to assist the Board in fulfilling its oversight responsibilities in relation to: financial reporting; the effectiveness of the system of risk management and internal control; compliance with applicable legal and regulatory requirements; monitoring the qualifications, expertise, resources and independence of both the internal and external auditors; and assessing the internal and external auditors' performance and effectiveness each year. The AC keeps the Board informed of its activities and recommendations. Where the AC is not satisfied with, or if it considers that action or improvement is required concerning any aspect of financial reporting, risk management and internal control, compliance or audit-related activities, it promptly reports these concerns to the Board.

## ACTIVITIES

The AC covers a variety of topics in its meetings. These include both standing items that the AC considers as a matter of course, typically in relation to the quarterly unaudited financial statements, control issues, accounting policies and judgements and reporting matters, and a range of topics relevant to Shell's control framework. The AC invites the Chief Executive Officer, the Chief Financial Officer, the Legal Director, the Chief Internal Auditor, the Executive Vice President Controller, the Vice President Accounting and Reporting and the external auditor to attend each meeting. The Chair of the Board also regularly attends the meetings as an observer. Other members of management attend when requested. The AC regularly holds private sessions separately with the external auditor and the Chief Internal Auditor without members of management, except for the Legal Director, being present.

During 2018, the AC received comprehensive reports from management and the internal and external auditors on various topics. In particular, it discussed with the Chief Financial Officer, the Executive Vice President Controller, the Vice President Accounting and Reporting, the Chief Internal Auditor and the external auditor matters that arose on accounting policies, practices and reporting, and reviewed aggregated whistle-blowing reports, internal audit reports and analyses of financial reporting matters. The AC has access to these parties and any members of Shell's management, as necessary, to provide in-depth analysis on specific topics or on more detailed technical matters that may arise.

## Audit Committee Report Continued

In view of the rapidly changing business landscape, the regulatory environment and the introduction of new technologies and digital opportunities, the AC continued to focus on the robustness of Shell's information risk management, including considering: changes made to further strengthen access management controls during 2018; security improvement initiatives; Shell's cyber monitoring and defence capabilities; and information security generally. To inform its assessment, the AC and the Chief Information Officer reviewed the status of information risk management and determined that the levels of control, activities undertaken in 2018 and further focus areas are appropriate. The AC also reviewed assurances for: proved oil and gas reserves; Brent crude oil and Henry Hub long-term natural gas price assumptions; discount rates used for financial reporting, particularly with respect to impairment testing (see below in this report and Note 2 to the "Consolidated Financial Statements" on pages 172-181 for further information); and the effectiveness of financial controls. The AC discussed future tax-related risks for Shell with the Executive Vice President Taxation, particularly in relation to the external environment, for example, implementation of base erosion and profit-shifting measures, dividend withholding tax in the Netherlands and US tax reform. The AC discussed with the Chief Ethics and Compliance Officer her annual report on compliance matters, including regulatory developments and compliance risks. Following the coming into effect of the EU GDPR in May 2018, which required Shell companies to update systems, processes, notices and ensure its contracts contain the appropriate clauses to actively demonstrate compliance, the Chief Privacy Officer provided the AC with an update on EU GDPR implementation, compliance monitoring and assurance.

In addition to the items discussed under significant issues on pages 115-116, the AC also dedicated time to other matters that it deemed relevant and appropriate, for example: the impact of changes connected with the adoption of IFRS 9 (*Financial Instruments*) and IFRS 15 (*Revenue from Contracts with Customers*); the impact of the new lease accounting standard (IFRS 16); and Shell's insurance arrangements. The AC also discussed investigations of cases involving ethics and compliance concerns. The AC discussed management's findings in such cases to satisfy itself that a rigorous process had been followed, and, where appropriate, learnings embedded by management into the systems and controls of the organisation.

The AC was briefed on litigation matters (see "Corporate governance" on page 98 and Note 25 to the "Consolidated Financial Statements" on pages 211-213); impending regulatory requirements (such as the publication of the FRC's 2018 UK Corporate Governance Code and other corporate governance reporting requirements); and market studies into external audit (namely the UK Competition and Markets Authority's market study to consider whether the market for the provision of statutory audits is working as well as it should and the UK Business, Energy and Industrial Strategy Committee inquiry on the future of audit).

In May 2018, the AC spent a day at the trading and supply office in London to deepen its understanding of the challenges faced and opportunities created by the trading and supply function. The AC was provided with information on the external environment and the relevant regulations within which the function operates. The AC engaged with members of the trading and supply function in in-depth discussions on a variety of topics including market risk, credit risk, assurance and supervision and Brexit planning.

There was no contact during the year with the FRC Corporate Reporting Review team. Following the Company's responses to matters raised by the review team in 2017, as a result of the FRC's thematic review of companies' disclosures of significant accounting judgements and sources of estimation uncertainty, the Company made the following changes in the 2017 and 2018 Consolidated Financial Statements: disclosed Shell's Brent crude oil and Henry Hub long-term natural gas price assumptions; and made a distinction between key accounting judgements and estimates and other more generic judgements and estimates applicable to Shell. The AC discussed with management the Company's responses to matters raised by the US Securities and Exchange Commission staff in relation to clarifying aspects of the Proved Undeveloped reserves disclosure in the 2018 Annual Report and Form 20-F.

The AC discussed the Company's 2018 Annual Report and Form 20-F, half-year report and quarterly unaudited financial statements with management and the external auditor. As requested by the Board, the AC advised the Board of its view that the 2018 Annual Report and Form 20-F including the financial statements for the year ended December 31, 2018, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess Shell's position and performance, business model and strategy (see the "Directors' Report" on pages 91-92). To arrive at this conclusion, the AC critically assessed drafts of the 2018 Annual Report and Form 20-F including the financial statements and discussed with management the process undertaken to ensure that these requirements were met. This process included: verifying that the contents of the 2018 Annual Report and Form 20-F are consistent with the information shared with the Board and management during the year to support their assessment of Shell's position and performance; ensuring that consistent materiality thresholds are applied for favourable and unfavourable items; considering comments from the external auditor; and receiving assurance from the Executive Committee (EC). The AC further reviewed and considered the Directors' half-year and full-year statements with respect to the going concern basis of accounting. As noted in the viability statement, the Board also reviews the strategic plan which takes account of longer-term forecasts and a wide range of outlooks. Factors considered included: the impact of commodity prices; exchange rates; schedules of growth programmes; the financial framework; Shell's business portfolio developments; the project funnel to support future growth; and running models of the financial impact of certain of Shell's principal risks materialising using severe but possible scenarios. The AC analysed the mitigating measures and sensitivities management had applied to the modelling of such scenarios when considering the viability statement and supported its inclusion in the "Directors' Report" on page 92.

The AC considered and approved the internal audit function's annual audit plan. It also reviewed Deloitte LLP's independent external quality assessment of the effectiveness of the internal audit function. The AC assessed the performance of the internal audit function as effective. The AC also considered the annual external audit plan (including assessing whether the planned materiality levels and proposed resources to execute the audit plan were consistent with the audit scope) and approved related remuneration to ensure that the level of fees would allow an effective and high-quality audit to be conducted by the external auditor.

## **AC EVALUATION**

The AC undertakes an annual evaluation of its performance and effectiveness. As with the Board's annual performance evaluation for 2018, the AC's performance evaluation was facilitated by Lintstock Limited, a London-based corporate advisory firm. Each AC member responded to a confidential questionnaire related to the AC's performance covering questions relating to: the management of the AC in areas such as the annual cycle of work, agenda for meetings, and time and input in meetings; rating the quality of the information provided to the AC; the effectiveness of the AC's oversight in areas such as the work of internal and external audit, the Group's financial reporting, the system of internal controls and the risk management policies and practices; rating the AC's performance in reviewing and assessing significant accounting and reporting issues; and generally how to improve the AC's performance. The AC's discussion of the outcomes was assisted by a performance evaluation report produced by Lintstock, which included comparison of 2018 responses against the responses submitted by AC members in 2017.

The AC concluded that its performance in 2018 had been effective and that it fulfilled its role in accordance with its terms of reference, which can be found at [www.shell.com/investor](http://www.shell.com/investor). As part of the evaluation, the AC discussed the priorities, in addition to the standing items, for its 2019 agenda, including a visit to the finance operations centre in Chennai and further discussions on IFRS 16 implementation, regulatory developments, information risk management and new business models and ventures. When assessing progress against 2017, the AC concluded that 2018 priorities identified in the 2017 evaluation (including a visit to the trading and supply office in London and further discussions on Shell's insurance arrangements, IFRS 16 implementation, regulatory developments and information risk management) had all been undertaken by the AC in 2018.

## **SYSTEM OF RISK MANAGEMENT AND INTERNAL CONTROL**

The AC reviewed the regular reports on risks, controls and assurance, including the annual assessment of the system of risk management and internal control, in order to monitor the effectiveness of the procedures for internal control over financial reporting, compliance and operational matters. This included the Company's evaluation of the internal control over financial reporting as required under Section 404 of the Sarbanes-Oxley Act.

## **SIGNIFICANT ISSUES**

The AC assessed the following significant issues, including those related to Shell's 2018 Consolidated Financial Statements. The AC was satisfied with how each of the issues below was addressed. As part of this assessment, the AC received reports, requested and received clarification from management, and sought assurance and received input from the internal and external auditors.

## Audit Committee Report Continued

Significant issues		
Subject	Issue	How the AC addressed the issue
<b>DISPOSALS</b> See Notes 5 and 8 to the "Consolidated Financial Statements" on pages 184 and 186-188.	Shell has concluded its 2016-2018 divestment programme, as part of which several significant disposals were completed in 2018. Prior to disposal, judgement is required in determining whether a sale is highly probable. If it is, the asset should be classified as held for sale, which is a trigger for impairment testing.  Judgement may also be required when accounting for the disposal, for example in estimating the amount of any liabilities retained by Shell.	The AC scrutinised the application of the held for sale classification, as well as the accounting for any ensuing disposals, including the divestment of Integrated Gas assets in India and Oman, as well as Upstream assets in Iraq, Malaysia, Norway, Oman and the UK. Particular attention was given to the accounting for any retained obligations, the assumptions used in determining any resulting charges and the tax treatment.
<b>IMPAIRMENTS</b> See Notes 2 and 8 to the "Consolidated Financial Statements" on pages 172-181 and 186-188.	The carrying amount of an asset should be tested for impairment when there is a change in circumstances such as a reduction in performance, other than short term, or being classified as held for sale.  Despite oil prices that were higher, on average, in 2018 than in 2017, management decided not to change Shell's long-term price forecasts.	The oil and gas price outlook was reviewed against market developments and benchmarks, and the potential impact of certain price sensitivities were considered. The relevant discount rates utilised were also reviewed.  The AC satisfied itself with the impairment testing performed and the impairment charges or reversals recognised in relation to certain Integrated Gas and Upstream assets. These charges or reversals were mainly triggered by market changes, asset performance and project delays.
<b>TAXATION</b> See Notes 2 and 16 to the "Consolidated Financial Statements" on pages 172-181 and 194-197.	The determination of tax assets and liabilities requires the application of judgement as to the ultimate outcome, which can change over time depending on facts and circumstances. In particular, the recognition of deferred tax assets requires management to make assumptions regarding future profitability and is therefore inherently uncertain.	The AC conducted an in-depth review of management's assessments on certain tax matters. The AC considered tax exposures, including the recoverability of deferred tax assets, particularly those associated with 2018 disposals, and accepted the resulting assessments of the deferred tax positions.
<b>IMPLEMENTATION OF IFRS 16</b> See Note 3 to the "Consolidated Financial Statements" on page 181.	With effect from January 1, 2019, IFRS 16 <i>Leases</i> will replace IAS 17 <i>Leases</i> . Under the new standard, all lease contracts, with limited exceptions, are recognised in the financial statements by way of right-of-use assets and corresponding lease liabilities. Shell will apply the modified retrospective transition approach without restating comparative information.  The amount of operating lease commitments that will be recognised on the balance sheet at the date of application depends on many factors, including the outstanding lease contracts at that date, the remaining lease term and the discount rate applied upon transition.	The AC appraised and approved accounting policy changes resulting from the implementation of IFRS 16. The AC reviewed management's analysis of the adoption implications for Shell, including key judgements, and concurred with their recommendations.
<b>CHANGES TO PRESENTATION OF CONSOLIDATED STATEMENT OF CASH FLOWS</b>	Shell prepares its "Consolidated Statement of Cash Flows" using the "indirect method", whereby in determining cash flow from operating activities (CFFO), income for the period is adjusted for the effects of non-cash transactions. The presentation of these non-cash transactions is not prescribed by IFRS, necessitating professional judgement.  With effect from January 1, 2018, the reconciliation from income for the period to CFFO has been revised to provide better insights. The transparency of the CFFO excluding working capital measure has been improved and the working capital measure better correlates with the balance sheet.	The AC analysed the improvement initiative proposed by management and accepted that the implementation would deliver greater transparency for all users of Shell's "Consolidated Statement of Cash Flows".
<b>CYBER-SECURITY</b>	Information on the increasing importance of cyber-security and Shell's management of the associated risks was presented to the AC.	The AC discussed the measures in place to mitigate against these risks with the Chief Information Officer.

## **INTERNAL AUDITOR**

The internal audit function is an independent and objective assurance function which aims to improve Shell's overall control framework. The internal audit function assists in the maintenance of a systematic and disciplined approach to evaluate and improve the design and effectiveness of Shell's risk management, control and governance processes. The primary role of the internal audit function, through its assurance and investigation activities, is to safeguard value by protecting Shell's assets, reputation and sustainability in relation to the organisation's defined goals and objectives.

The AC defines the responsibility and scope of the internal audit function and approves its annual plan. The Chief Internal Auditor reports functionally to the Chair of the AC and administratively to the Chief Financial Officer. The Chair of the AC approves, in consultation with the Chief Financial Officer, all decisions regarding the performance evaluation, appointment or removal of the Chief Internal Auditor. A new Chief Internal Auditor was appointed with effect from September 2018.

The Chief Internal Auditor periodically assesses whether the purpose, authority, and responsibility of the internal audit function continue to enable it to accomplish its objectives. The result of this periodic assessment is communicated to the EC and AC. The Chief Internal Auditor maintains an internal quality assurance and improvement programme, covering all aspects of the internal audit activities, to evaluate the conformance of these activities with the Chartered Institute of Internal Auditors Standards (CIIA Standards). The programme also assesses the efficiency and effectiveness of the internal audit activities and identifies opportunities for improvement. The result of this annual assessment is communicated to the EC and AC and includes a reconfirmation to the AC of the continued validity of the charter of the internal audit function, or it proposes an update.

At least every five years, the effectiveness and quality of the internal audit function is assessed externally and the report shared with the AC. In 2018, Deloitte LLP carried out such an independent external assessment, the conclusions of which were discussed with the AC and enabled the AC to satisfy itself that the quality, experience and expertise of the function continue to be appropriate for the business. The CIIA's standard quality assessment rating scale has three levels: "generally conforms", "partially conforms", and "does not conform". Based on its assessment, Deloitte reported to the AC that the Shell internal audit function "generally conforms", which means that Deloitte appraised the function to be operating and performing in accordance with the CIIA Standards and commented on a number of leading practices including its established data analytics capability and the depth of business knowledge and expertise in the internal audit function. The overall assessment shows an improvement compared to the last independent external quality assessment in 2013.

Further, the AC reviewed and assessed management's response to significant findings by the internal audit function, including the implementation of agreed actions, and concluded that management's response properly supported the effective working of the internal audit function.

## **EXTERNAL AUDITOR**

The AC is responsible for considering whether, in order to ensure continuing auditor independence, there should be a rotation of the independent registered public accounting firm, including consideration of the advisability and potential impact of selecting a different independent public accounting

firm. The Company's current external auditor, Ernst & Young LLP (EY), was first appointed at the Annual General Meeting (AGM) in May 2016 following the conclusion of a competitive tender process. The Company has complied with The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014 for the 2018 financial year.

At the AGM in May 2018, a resolution to reappoint EY as external auditor until the conclusion of the next AGM was approved by shareholders. There are no current plans to retender the appointment. The current external audit partner is Allister Wilson, who has held this position since EY's initial appointment as external auditor in 2016.

During 2018, there was no review of any of EY's audits of Shell's Consolidated Financial Statements by the Audit Quality Review (AQR) team of the FRC. The AC evaluated the effectiveness of EY and the external audit process in its third year as auditor, taking into account the results of Shell management's internal survey relating to EY's performance over the financial year 2018 as well as views and recommendations from management and the Chief Internal Auditor and its own experiences with the external auditor. Key criteria of the evaluation included: professionalism in areas including competence, integrity and objectivity; efficiency, covering aspects such as service level, cost efficiency and innovation in the audit process; thought leadership and value added; and compliance with relevant legislative, regulatory and professional requirements. The AC concluded that EY had performed effectively.

Following due consideration, the AC will recommend to the Board to propose to the 2019 AGM that EY be reappointed as the external auditor of the Company for the year ending December 31, 2019. There are no contractual obligations that restrict the AC's ability to make such a recommendation.

As required under UK and US auditing standards, the AC received a letter from EY confirming its independence.

EY presented its views on the 2018 Annual Report and Form 20-F, including the financial statements and internal control over financial reporting for the year ended December 31, 2018, to the AC and to the Board.

## **NON-AUDIT SERVICES**

The AC updated its independence policy in respect of the provision of services by the external auditor with effect from January 1, 2017, to accommodate changes in related standard and regulatory requirements. This policy, designed to safeguard auditor objectivity and independence, includes rules relating to the provision of audit services, audit-related services and other non-audit services, and stipulates which services require specific prior approval by the AC.

The policy also defines prohibited services that are not to be provided by the auditor as these represent a risk to external auditor independence. Prohibited services are any that relate to management decision taking or any other service that would compromise auditor independence or the perception thereof. These prohibited services include all services listed as prohibited in the UK and US auditor independence rules.

## **Audit Committee Report** Continued

For certain services that are not prohibited, because of the knowledge and experience of the external auditor and/or for reasons of confidentiality, it can be more efficient or prudent to engage the external auditor rather than another party. This is particularly the case in relation to audit-related assurance services that are closely connected to the audit function where the external auditor has the benefit of knowledge gained from work already performed as part of the audit.

Under the policy, the AC will only approve services to be carried out by the external auditor or its affiliates where such services do not present a conflict of interest risk in fact or in appearance. The AC reviews quarterly reports from management on the audit and non-audit services reported in accordance with the policy or for which specific prior approval from the AC is being sought. To the extent that the fee value of an additional audit service contract does not individually exceed \$500,000, then no prior approval of the AC is required. All non-audit services where the fee for each individual contract exceeds \$50,000, including audit-related services, require individual prior approval by the AC. In each case where the audit or non-audit service contract does not exceed the relevant threshold, the matter is subsequently reported at the next quarterly AC meeting.

For UK reporting purposes, the scope of the non-audit services contracted with the external auditor in 2018 consisted mainly of interim reviews and other audit-related assurance services. The associated compensation for these audit-related services and other non-audit services amounted to 9% and 2%, respectively, of the external auditor's audit and audit-related remuneration.

### **FEES**

Note 28 to the "Consolidated Financial Statements" on page 214 provides a specification of the auditor's remuneration.

# Directors' Remuneration Report

The Directors' Remuneration Report for the year ended December 31, 2018 sets out the work of the Remuneration Committee (REMCO) in 2018 and how the policy that was approved by shareholders at the 2017 Annual General Meeting (AGM) has been implemented. The principles that underpinned REMCO's approach are set out on page 125.

## STATEMENT BY THE CHAIR OF THE REMUNERATION COMMITTEE

Dear Shareholders,

### INTRODUCTION

The year for REMCO started with a disappointing vote on the remuneration report for 2017, in spite of extensive and constructive engagement with a large number of our institutional investors. We have since spent considerable time with shareholders to understand this and learn how to change our approach for the future.

With respect to company performance we enjoyed a good year, rounding off a successful post BG acquisition period and delivering on our commitments. This is reflected in a high vesting percentage for our Long Term Incentive Plan (LTIP).

We also made good progress through our continued engagement with shareholders regarding the implementation of a measure for energy transition progress as part of our LTIP. Given the broad support for our direction of travel we have decided not to wait for the mandatory policy review of next year, but rather to start immediately by incorporating an energy transition metric into the 2019 LTIP. This is a first for our industry, and the design was strongly influenced by collaboration with some of our major shareholders.

In the sections below, I will cover the following:

Firstly, looking back at 2018 and its outcomes:

- 2018 Annual General Meeting - An overview of the voting outcome and the key learning from our subsequent shareholder engagements.
- Reflections on 2018 Performance - An overview of performance on key components of the 2018 annual bonus scorecard, in particular regarding safety, cash flow and operations. Insight into the Executive Directors' individual performance elements taken into account by REMCO and the resulting annual bonus award.
- Long-Term Incentive Plan - A reflection of REMCO's deliberations when determining the vesting of the 2016 LTIP award.
- CEO Remuneration - A summary of the factors considered by REMCO in its reflection on the 2018 Single Figure and an indication of several bonus structure changes that we have brought forward to implement in 2019, in advance of the 2020 policy vote.

Then looking forward at pay in the wider context and our remuneration approach in 2019 and beyond:

- Pay in the Wider Context - In the interests of transparency, we are publishing the CEO pay ratio in accordance with the new methodology a year earlier than required and this is summarised in this section together with information on how all our employees share in our success and our drive to be internally proportionate while externally competitive.
- Remuneration Policy - an update on our progress on the policy review in advance of the 2020 policy vote and details on the policy changes we have brought forward for early implementation.

## 2018 ANNUAL GENERAL MEETING

REMCO was disappointed with the level of the support (74.78%) received in favour of the Annual Report on Remuneration for the year ended December 31, 2017. Our engagements with shareholders and proxy voting agencies in 2018 helped us understand the voting outcome.

One of the most important points to emerge from these discussions was that we should have been clearer about why the tragic June 2017 incident in Pakistan involving a sub-contractor road tanker did not lead to a reduced bonus outcome. Based on advice from the Corporate and Social Responsibility Committee (CSRC), REMCO ensures that safety performance is appropriately considered in remuneration. We consider the wider safety performance of Shell, as well as the safety measures in the bonus scorecard. This assessment includes a consideration of what is within Shell's operational control. Although devastating, ultimately this tragedy was outside Shell's operational control. The Board discussed the Pakistan incident at length and with so much focus on the incident in our internal discussions, we did not realise that our decision regarding remuneration needed further clarification in order to be understood by our shareholders. Our extensive internal investigations are now complete and, while a Pakistani police investigation is ongoing, we do not have any new information that would change our remuneration decisions. Further information on our learnings from this road tanker incident can be found in the Safety section on page 67.

## 2018 PERFORMANCE

I would now like to turn to 2018 performance and, in particular, reflect on the metrics within the annual bonus scorecard.

Firstly, in respect of safety, we set a particularly challenging personal safety target for 2018. This is evidenced in the outcome, measured by Total Recordable Case Frequency (TRCF), of zero on the annual bonus scorecard. It is worth noting that had the target remained unchanged from 2017, our 2018 outcome would have been on target. Despite the TRCF score of zero, 2018 had the second lowest TRCF on record, after Shell's record low in 2017, and REMCO noted that the number of cases has halved since 2008. The tragic deaths of two contractors in Shell-operated ventures was included in the TRCF outcome. In reflecting on these deaths when determining the 2018 bonus outcome, REMCO decided that because personal safety was already at zero against a stretching target no further adjustment to the scorecard outcome was required.

Road transportation remains a challenging and complex area for our industry worldwide. We were deeply disappointed that, following the June 2017 incident, in October 2018, there was another roll-over incident in Pakistan involving a customer tanker, which resulted in the death of the relief driver and a spill. However, as this further incident was also outside the scope of Shell's operational control, REMCO has concluded that it will not be reflected in 2018 pay outcomes.

There was notable improvement in 2018 in operational process safety with a reduction in the number of Tier 1 and Tier 2 events by 27% compared to the prior year. It was also encouraging to see good delivery on the greenhouse gas (GHG) intensity measures with these all at, or better than target, with a notable reduction in flaring.

Although the macroeconomic environment remained uncertain in 2018, Shell produced very strong financial results, with cash flow from operations (CFFO) of \$53 billion. Our strong financial performance allowed Shell to service and reduce debt, cover the dividend, make capital investments and execute share buybacks. Our performance relative to our competitors (BP, Chevron, ExxonMobil and Total) has also been strong, for example, Shell has regularly outperformed competitors on CFFO since early 2017. Indeed, 2018 saw significant volatility in oil and gas prices, during which time the underlying competitiveness of Shell was a key strength. Finally, while that price volatility also impacts cash flow, it is worth reiterating that REMCO has long had a policy of not adjusting remuneration measures to take into account changes in oil and gas prices and currency fluctuations. In our engagements with our largest shareholders, many have appreciated the transparency this brings.

Shell's strong financial performance was supported by the operational performance of Shell's businesses. LNG liquefaction volumes were well above target, due to better reliability and better feedstock availability.

Project delivery was also strong with delivery ahead of planned budget, with significant life-cycle cost reductions, particularly driven by the Appomattox deep-water oil and gas project in the USA where costs were more than \$1 billion below budget, partially offset by delays in schedule of more than two months on nine out of the 36 projects we track. Refinery and chemical plant availability was near target. Production was below target, affected by new field delays as well as operational challenges including Enchilda/Salsa assets and Auger and its associated fields.

### ANNUAL BONUS

Taking into account the 2018 performance context, REMCO approved the annual bonus scorecard outcome of 1.31 and no discretion was applied. This brings our ten-year average scorecard outcome to 1.24. The detailed bonus scorecard breakdown is on page 133.

REMCO also approved an individual performance multiplier of 1.0 for both the CEO and CFO based on the following factors:

### Pay for performance

The following table summarises performance against the individual objectives for the CEO and CFO

KEY GOALS	BEN VAN BEURDEN	JESSICA UHL
<b>Deliver a world-class investment case</b>	<p><b>Performance multiplier = 1.0</b></p> <p>Under the CEO's leadership, Shell continues to transform, with a clear purpose and well-defined strategic intents that balance societal progress with performance, to deliver higher returns. A strong financial performance was delivered: CFFO was \$53 billion, FCF was \$39 billion, an all-cash dividend was paid, gearing was reduced to 20.3%, and the share buyback programme was started. The \$30 billion divestment programme was also completed and investments have been made in a disciplined manner.</p> <p>In terms of broader company performance, REMCO recognised the strategic clarity the CEO has provided around the purpose and direction of Shell. The CEO set out Shell's 2020 ambition following the BG acquisition, and the 2018 numbers across all strategic themes show that the strategy is delivering. Shell delivered on commitments to shareholders and is on track to achieve its 2020 targets.</p>	<p><b>Performance multiplier = 1.0</b></p> <p>The CFO demonstrated strong cost and capital discipline leadership. This was enabled by a consistent focus on the strategic management of Shell's Financial Framework during the year, which has been a key contribution to the health and success of Shell in 2018. Key milestones included: reduced gearing, the cancellation of the scrip dividend and start of the share buyback programme, sustained investment discipline, reduced costs and a strengthened balance sheet with AA equivalent credit metrics.</p> <p>In terms of broader company performance, REMCO recognised the strategic insight the CFO has provided in terms of effective capital allocation, portfolio and investment decisions that further Shell's world-class investment case.</p>
<b>Thrive in the energy transition</b>	<p>The CEO led the operationalisation of Shell's NCF ambition through driving internal plans and targets, integrating business and world-class investment decisions with thriving in the energy transition, and by preparing the organisation for changing investor and customer preferences as the transition unfolds.</p> <p>The CEO continues to lead the way in the energy transition debate externally, for example, through the first joint statement with institutional shareholders, encouraging other companies to adopt the NCF methodology, and shaping the debate on energy transition with recognised scenario outlooks (Sky).</p>	<p>The CFO further matured the internal management systems relating to carbon dioxide (CO<sub>2</sub>) in portfolio, planning and resource allocation decisions.</p> <p>The CFO led the publication of the Shell Energy Transition Report, which is aligned with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and sets out how Shell plans to be resilient to expected changes in the energy system and how its strategy helps it to thrive as the world transitions to lower-carbon energy.</p>
<b>Strengthen licence to operate</b>	<p>In terms of HSSE leadership, performance was mixed, which shows further improvement is required. The 2018 personal injury rate slightly worsened, following the lowest ever injury rate on record in 2017, however the long-term trend still shows improvement with an injury rate reduction of some 50% compared to 2008. There was notable improvement in 2018 in operational process safety with a reduction in the number of both Tier 1 and Tier 2 events.</p> <p>The CEO has also shown leadership and transparency in terms of Shell as a responsible company with a role to play in society.</p>	<p>The CFO maintained a strong financial disclosure, reporting and control framework.</p> <p>In terms of tax transparency, the CFO played a key role in Shell's endorsement of the responsible tax principles set out by the non-profit organisation, The B Team.</p>

The annual bonus award for the CEO was 131% of the target and 79% of the maximum opportunity. For the CFO, it was 130% of target and 65% of the maximum opportunity. REMCO sets the awards based on target and, as such, considered that the annual bonus outcomes were appropriate for 2018. Further commentary on this for the CEO is provided below in the section on Remuneration Policy.

The annual bonus for the Executive Directors is paid 50% in cash and 50% in shares subject to a three-year holding period, which applies beyond an Executive Director's tenure.

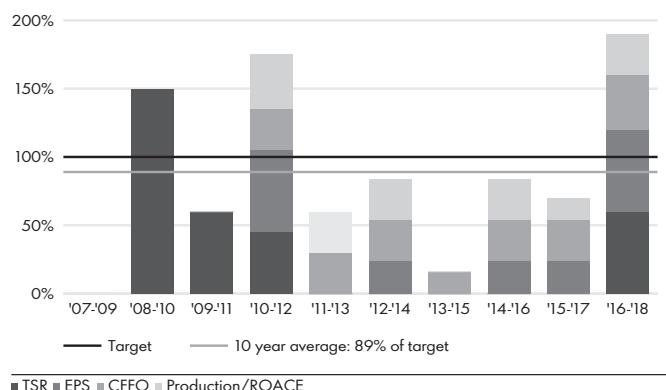
### LONG-TERM INCENTIVE PLAN

The outcome of the 2016 LTIP over the performance period (financial years 2016 to 2018) was 190%. In this section I would like to set out some context on our policy, the historical vesting position for the plan and also comment specifically on performance for the period and the resulting vesting outcome for the Executive Directors.

One of the features of our pay model is the high proportion of variable pay, which makes up around 80% of the CEO's target remuneration package and around 72% for the CFO. Accordingly, we expect that pay outcomes will fluctuate based on the performance of the Company over time. Prior to latest vesting, our 10-year average vesting level was 75%, notably below the target level of 100% and maximum level of 200%.

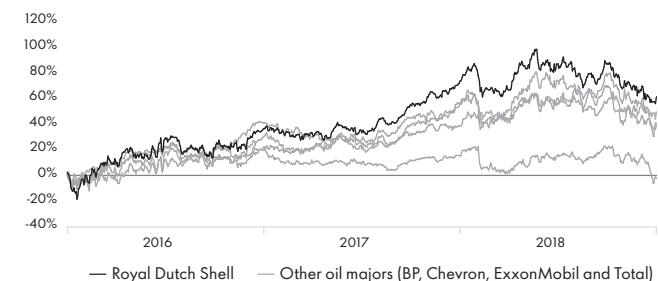
As you will see from the following chart, vesting during the last ten years has ranged from 0% to 175% and we saw a number of recent years of low LTIP vesting outcomes as Shell went through a transformation following the acquisition of BG, including the sale of non-core assets. As the benefits of this transformation start to be realised, we see strong competitive performance of Shell over the past three years relative to our competitors (BP, Chevron, ExxonMobil and Total). This will be only the third time since 2009 that the LTIP vesting has been above target (or higher than 50% of the maximum) and the 10-year average vesting outcome of the LTIP shifts to 89% of target (44.5% of maximum).

### LTIP vesting



For the 2016 LTIP, Shell's total shareholder return (TSR), earnings per share (EPS) and cashflow from operations (CFFO) were highest among our competitors, while return on average capital employed (ROACE) ranked second highest. The chart below illustrates this strong relative performance in terms of TSR:

### Total shareholder return 2016-2018



These outcomes reflect the success of Shell's strategy since 2016 and the progress made in building a world-class investment case. Over the 2016-2018 performance period, Shell has delivered on commitments to strengthen the financial framework; cancelling the Scrip Dividend Programme and starting the \$25 billion share buyback programme (\$4.5 billion completed as at January 28, 2019). As well as reshaping the portfolio with the \$30 billion divestment programme completed, \$10 billion of CFFO from new projects realised in 2018 while reducing underlying operating expenses (\$39 billion in 2018). Our operating expenses are lower than Shell's standalone costs in 2015, meaning we have fully absorbed the operating costs of BG and delivered even more cost savings, which demonstrates the success of the combination. The divestment programme was designed to high-grade and reshape our portfolio and strengthen our financial framework. When it started in 2016, the oil price was below \$40 a barrel and market conditions for executing a programme of this scale were challenging.

This performance is reflected in the LTIP performance measures, with CFFO measured on a rolling four-quarter basis the highest in absolute terms among our competitors from the third quarter of 2017. Shell's EPS (measured on a diluted current cost of supplies basis) has grown from \$0.60 per share in 2015 to \$2.85 in 2018. ROACE has improved as Shell has divested non-core assets and focused on capital discipline.

After considering the underlying performance of Shell relative to our competitors over the performance period, REMCO decided it was appropriate that the 2016 LTIP award vested in accordance with the set vesting schedule without adjustment.

The table below illustrates the total LTIP vesting that follows this strong performance of Shell over the past three years relative to our competitors, strong share price appreciation and the dividend yield.

In 2016, there was some fluctuation in the share price during the period that REMCO made its remuneration decisions. REMCO paid careful attention to the share price and determined it was appropriate to grant the 2016 LTIP award based on a three-month average share price, rather than a share price at the date of award, in order to moderate this volatility. This reduced the number of shares awarded.

This vesting takes the CEO's shareholding to more than 11 times base salary. The CEO's vested awards are subject to a two-year holding period, which he has voluntarily agreed to extend to three years. It is worth noting that while the CFO received a 2016 LTIP award, she was not an Executive Director at the time and therefore received a significantly smaller award.

### 2016 LTIP vesting outcome

#### BEN VAN BEURDEN

**Vesting outcome:** [A]  
 $236,302 \times 190\% =$   
 448,974 RDS A Shares  
 (€9,033,353)

**Increase in share price:** [B]  
 $448,974 \times €7.215$   
 (€3,239,346)

**Accrued dividends:** [C]  
 107,432 A Shares  
 (€2,936,659)

**Total LTIP Vesting:** [C][D]  
 556,406 RDS A Shares  
 (€15,209,358)

#### JESSICA UHL

**Vesting outcome:** [A]  
 $13,800 \times 190\% =$   
 26,220 RDS.A ADS  
 (\$1,190,388)

**Increase in share price:** [B]  
 $26,220 \times \$16.92$   
 (\$443,642)

**Accrued dividends:** [C]  
 6,281 RDS.A ADS  
 (\$391,432)

**Total LTIP Vesting:** [C]  
 32,501 RDS.A ADS  
 (\$2,025,462)

[A] Based on the share price at grant of €20.12 for Ben van Beurden and \$45.40 for Jessica Uhl.

[B] Calculated as the share price at vesting date minus the share price at the date of grant for Ben van Beurden €27.335 - €20.12 = €7.215 and for Jessica Uhl: \$62.32 - \$45.40 = \$16.92.

[C] Based on the share price at vesting date of €27.335 for Ben van Beurden and \$62.32 for Jessica Uhl.

[D] Vested shares are subject to a two year holding period.

#### CEO REMUNERATION

REMCO has acted carefully in managing pay over the course of Ben van Beurden's service as CEO. With respect to base salary, REMCO has reduced the starting base salary for the new CEO relative to his predecessor twice successively in recent history and adapted this annually in line with base salary movement of the wider Shell workforce, as indicated in the table on page 137. The variable pay opportunity has remained broadly unchanged for more than 10 years.

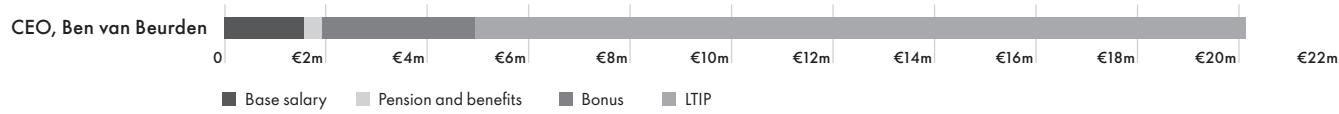
As a consequence of the LTIP vesting in particular, the single figure of remuneration for the CEO is significantly higher this year than in previous years. REMCO is sensitive to the wider societal discussions regarding the level of executive pay and spent a significant amount of time discussing the high single figure for the CEO in 2018. I want to share with you our reasons for supporting this outcome

The strength of Shell's financial performance in the performance period and in accordance with the measures under the LTIP is set out above.

In its broader deliberation on the single figure, REMCO also reflected on Shell's other achievements in the last three years and the personal leadership that Ben van Beurden has provided in this period namely:

- Completed the acquisition and integration of BG.
- Delivered a \$30 billion divestment programme, reshaping the portfolio.
- Overseen several major project investment decisions such as in the deep-water Gulf of Mexico and LNG Canada at very capital-efficient unit development costs.
- Created a New Energies business, taking Shell further into offshore wind projects (now also in the USA as well as Europe), electric vehicle charging, and domestic electricity and gas supply.
- Led the sector in framing a methodology for aligning with the Paris Agreement, including two industry firsts of a) incorporating our customers' emissions associated with the energy products we sell and b) linking nearer-term targets to remuneration.

#### CEO 2018 single figure of remuneration



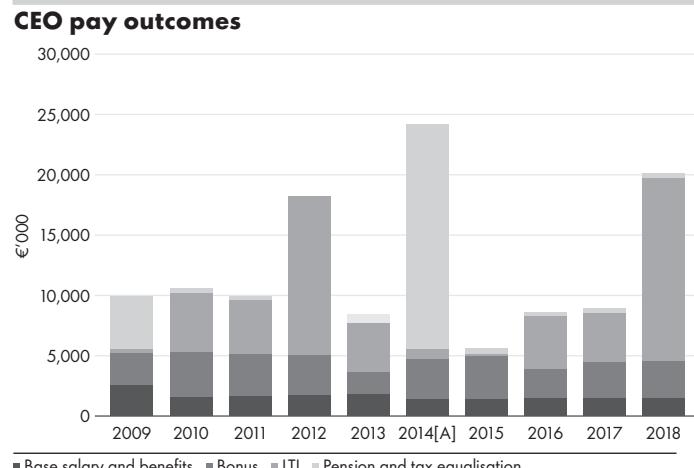
See single total figure of remuneration on page 131.

The CEO's leadership has been critical in building and delivering on a strategy that is enabling Shell to make such progress in becoming a world-class investment case.

In light of the above considerations, REMCO determined that not only was the vesting of the 2016 LTIP award appropriate on the basis of Shell's relative performance, but that this was underpinned by the broader performance of Shell and of the CEO in particular.

REMCO also considered the 2018 annual bonus outcome for the CEO and noted that while the bonus award of €3,000,000 is 131% of target, it is also 79% of the maximum opportunity. This is a result of the maximum being less than two times target. Further information on why this arose is set out in the section below on Remuneration Policy. REMCO sets the award based on target and, as such, REMCO determined that the annual bonus outcome was appropriate for 2018. Going forward, however, REMCO has decided to remove the asymmetry for the CEO by reducing the target bonus from 150% of salary to 125% of salary.

Overall, REMCO considered that taking into account the historical context and the volatility in the LTIP vesting, that the overall maximum pay opportunity for the CEO remains appropriate.



[A] Impacted by the increase in pension accrual (€10.7m) calculated under the UK reporting regulations and tax equalisation (€7.9m) as a result of his promotion and prior assignment to the UK.

### PAY IN THE WIDER SHELL CONTEXT

Being able to share in the success of Shell is important across the workforce. The Executive Directors, Executive Committee and most Shell employees have the same annual bonus scorecard. That helps drive a shared culture and alignment with Shell's purpose, strategy and values and allows employees to share in the same success as the most senior employees in Shell. In addition, around 20% of our employees are granted performance share awards on similar terms to the conditions that also apply to the Executive Directors through the LTIP. This means that many of our employees will have a significant variable pay outcome this year.

### CEO pay ratio and internal proportionality

We have sought to be transparent about our Executive Directors' pay and the wider context. In our 2017 Directors' Remuneration Report, we published an illustration of the CEO pay ratio calculated against our global workforce relative to pay ratios in FTSE 30 companies. We are building on that this year by voluntarily disclosing a pay ratio calculated in accordance with requirements introduced by the UK Companies (Miscellaneous Reporting) Regulations.

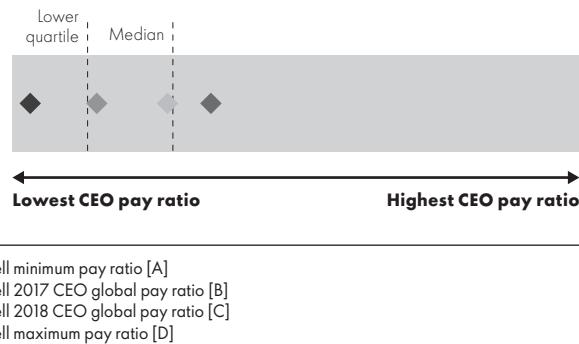
Using this new methodology, the UK CEO pay ratio when compared against the median employee is 143 (full details can be found on page 138). This is comparable to our global workforce ratio of 149. This global ratio has increased compared to the 2017 global ratio, largely because of the vesting level of the 2016 LTIP.

REMCO believes in reward packages that are externally competitive and internally proportionate, meaning the CEO is the employee with the highest proportion of variable pay as he has the highest level of responsibility. Accordingly, in years when that variable pay is high, such as 2018, the ratio will be high. In years when the variable pay is low, the ratio will follow.

We reviewed Shell's CEO pay ratio externally against the ratios that we see in other FTSE 30 companies, which we calculated based on their disclosed employee numbers and employee costs. We believe our ratio is consistent with those seen in other FTSE 30 companies, although it is challenging to draw a meaningful comparison given the different markets and industries in which they operate. REMCO looks forward to seeing how this disclosure develops as the new UK reporting requirements take hold.

### CEO: Pay ratio

2018 CEO single total figure against actual average global employee costs



[A] Based on CEO 'minimum' pay scenario as disclosed on page 143 compared to the average global employee cost in 2018.

[B] Based on the 2017 CEO single total figure compared to the average global employee cost in 2017.

[C] Based on the 2018 CEO single total figure compared to the average global employee cost in 2018.

[D] Based on CEO 'maximum' pay scenario as disclosed on page 143 compared to the average global employee cost in 2018. The 2018 single figure ratio exceeds this theoretical maximum as the theoretical maximum excludes share price appreciation and dividends.

### Gender Pay

Shell is committed to offering highly competitive reward packages and fair, non-discriminatory pay practices in every market where we employ people. We see diversity and inclusion as central to the ongoing success of the Company and are pleased to see a reduction in the mean gender pay gap for Shell companies in the UK in 2018, falling from 22.2% in the 2017 report to 18.6% in the 2018 report, published in accordance with the reporting required under the UK Equality Act 2010 (Gender Pay Gap Information) Regulations Act 2017.

This improvement reflects the work Shell is doing to encourage greater diversity. In the last 10 years, the proportion of women occupying senior leadership roles in the UK has increased from 17.7% in 2008 to 28.1% in 2018. Globally, women hold many senior positions including the role of CFO, and of Country Chair in the UK, USA and the Netherlands.

You will note, that the CFO's total remuneration for 2018 is significantly lower than the CEO's. This is principally because the LTIP grants that are now vesting were made in 2016, prior to her appointment as CFO and were accordingly lower in accordance with our principle of internally proportionate pay that increases with seniority.

As a company, we have more work to do. The pay gap will be influenced by changes to our business in the UK, as well as to our policies, so we do not expect progress to be linear. However, Shell aims to play a leading role in closing the gender gap in engineering and technology through the increased representation of women at all levels in our industry. REMCO has confidence in the policies Shell is putting in place to achieve that.

### REMUNERATION POLICY

REMCO believes that the Company's strategy should be determined first, and then a remuneration policy should be set that helps deliver that strategy. Shell has three strategic ambitions that position it well for the future: to be a world-class investment case while thriving in the energy transition and maintaining a strong societal licence to operate. These are inextricably connected. However, we know that our long-term success depends on our ability to anticipate and meet future energy needs as the world works to reduce carbon emissions. REMCO has therefore been working to strengthen our remuneration arrangements to support this longer-term outlook.

#### Energy Transition

To date, our Remuneration Policy has reflected Shell's ambition to thrive through the transition to lower-carbon energy in the following ways:

- The inclusion of GHG intensity measures in the bonus scorecard to measure performance on the direct and indirect emissions produced by our operations. These measures already cover around 90% of Shell's operated portfolio emissions and the scorecard applies to around 55,000 employees;
- The CEO's and CFO's personal performance goals based on successfully thriving in the transition to lower-carbon energy have been considered when determining the individual performance factor for their annual bonuses;
- A strong alignment to shareholder interests with a high shareholding requirement level of 700% for the CEO. In addition, 50% of annual bonus is delivered in shares to be held for three years, and the LTIP has a three-year vesting period followed by a three-year holding period.

In 2017, Shell was the first international oil and gas company to set the ambition to reduce the NCF of the energy products it sells (a carbon intensity measure that takes into account their full life-cycle emissions including customers' emissions associated with using them) in the period to 2050. We will do that in step with society's drive to meet the goals of the Paris Agreement on climate change.

In 2018, Shell took a major step forward in delivering our strategy by announcing plans to link nearer-term targets to reduce the NCF of the energy products we sell to executive remuneration. We made this announcement in a joint statement with institutional investors on behalf of Climate Action 100+, an initiative led by institutional shareholders.

The current shareholder approved Remuneration Policy provides REMCO with the ability to set performance conditions for LTIP awards. We have

been encouraged by the strong support we have received from shareholders and have accelerated our plans, on this and some other policy matters, by including an energy transition condition in the performance conditions for the 2019 LTIP grant. This condition will initially have a 10% weighting and our intention is to increase this over time.

We discussed our approach with our major shareholders and they have helped shape our decisions, including whether it should be incorporated to the LTIP or part of a separate plan. We decided to use the existing LTIP plan to ensure integrated thinking with our world-class investment case conditions and to avoid the complexity of multiple pay structures.

The energy transition condition will apply to the Executive Directors, Executive Committee members and around 150 of Shell's senior executives in 2019. From 2020, subject to any required staff consultation, we intend to incorporate the energy transition condition into the performance share awards made to around 16,000 employees globally.

The energy transition condition will include our first three-year target towards achieving our ambition to reduce the NCF of the energy products we sell. This target is set as a range aligned to the NCF reduction trajectory that we published in 2017. This approach will cover the total emissions associated with the consumption of the energy products Shell sells, across their full life cycle, extending the focus well beyond the GHG intensity measure included in the annual bonus scorecard. The energy transition condition will also include other measures that will help us achieve our strategic ambitions in the long term, related to the growth of Shell's power business, commercialising opportunities in advanced biofuel technology and the development of systems to capture and absorb carbon. The measures were chosen in conjunction with the CSRC and are intended to focus on those elements that will make the most impact in achieving our ambition. As ever, Shell will exercise prudence and any investment decisions will have stringent value creation requirements, as does any other investment. Further information is provided on page 129.

We expect that we will have much to learn about the transition to lower-carbon energy, as it evolves. There is no right or perfect answer, but it is important that we start this journey and we will learn more as we proceed. Accordingly, REMCO expects that the energy transition performance condition will evolve over time, and that we will use the measures and target as guidance, rather than applying a formulaic vesting outcome, when making our decisions.

### Other Policy Matters

As well as the work on the energy transition, REMCO has continued the remainder of its work on the new policy to be put to shareholder vote at the 2020 AGM. I want to update you on some of the areas we have discussed and decisions we have made.

We have heard concerns from some shareholders about the asymmetric annual bonus structure for the CEO, whereby more than half the maximum bonus (250% of base) can be earned for on-target performance (150% of base). This is a result of asymmetry in the bonus structure whereby the maximum award is less than two times the target award. This asymmetry was created in 2008, when REMCO increased the target to align to market pay but did not increase the maximum opportunity, given its desire to exercise restraint on the overall pay opportunity. Notwithstanding the reasons noted above why this asymmetry arose, REMCO has determined, having discussed the issue with shareholders, that the target bonus for the CEO will be reduced from 150% to 125% for the

2019 performance year onwards to reinstate symmetry in the bonus structure. REMCO considers that the total remuneration opportunity for the CEO remains competitive. As REMCO believes this is the appropriate decision, and this change can be made within the existing approved policy, REMCO decided not to wait until the next policy vote, but to accelerate implementation in the same way that it has for the energy transition condition in the LTIP.

Similarly, REMCO heard shareholder feedback that our annual bonus structure was too complex. Again, with effect from the 2019 performance year, REMCO has removed the individual performance multiplier currently used to reflect the CEO and CFO's individual performance, thus making Shell and Executive Director performance inextricably connected. This was discussed with major shareholders in my November investor roadshow.

In addition to introducing an energy transition performance condition, REMCO also reviewed the remainder of the performance measures under the LTIP. As a result of the new condition, the weighting of our other LTIP measures have been rebalanced. REMCO determined that it would retain the same vesting structure for the TSR, ROACE growth and CFFO growth measures in 2019. REMCO noted some shareholder concerns regarding the level of vesting for threshold performance. We believe that consistently beating two of the world's best companies, on a range of key financial metrics is a good outcome. Our LTIP is designed to be challenging, as evidenced by the 10-year historic vesting level noted above. We believe the view that the concept of threshold being a "minimum acceptable level" stems from plan designs with much wider comparator groups and often with single focus measures. Further details on Shell's LTIP can be found at pages 134 and 142-143.

REMCO considered whether the current approach to FCF in the LTIP, where we measure performance on an absolute basis, remained the correct measure. This measure was introduced in response to Shell's specific priorities to restructure its enlarged portfolio, complete \$30 billion of divestments and reduce debt following the BG deal. When REMCO introduced a FCF measure into the LTIP in 2017, shareholders advised this be measured on an absolute basis, in line with the realisation of the divestment programme to reduce gearing following the BG acquisition. As this is now complete, REMCO engaged shareholders about whether and how to retain the FCF measure. A number of shareholders agreed that absolute FCF is a key measure of the use of capital to drive shareholder value, and a good balance to relative CFFO, which captures operational outperformance. We therefore retained absolute FCF as a performance condition in the 2019 LTIP and will continue to review LTIP measures further for the 2020 policy.

REMCO has further work to do in preparing for the new policy to be put to shareholder vote at the 2020 AGM and this will continue during 2019. However, in implementing a set of key decisions in 2019, a year earlier than planned, REMCO is confident Executive Director pay is well-positioned to the market and well aligned with shareholder interests.

## LOOKING AHEAD

The year ahead promises to be a busy one, as we look to ensure that we take into account all the evolving UK corporate governance requirements and finalise our proposals for the 2020 policy review to be put to shareholders at the 2020 AGM. I look forward to an ongoing dialogue with our shareholders and will use our engagement sessions as an opportunity to gather your valuable feedback.

## THIS REPORT

This Directors' Remuneration Report for 2018 has been prepared in accordance with relevant UK corporate governance and legal requirements, in particular Schedule 8 of The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended). The Board has approved this report.

This report consists of two further sections:

- the Annual Report on Remuneration (describing 2018 remuneration as well as the planned implementation of the Directors' Remuneration Policy in 2019) which will be subject to an advisory vote at the 2019 AGM; and
- the Directors' Remuneration Policy which was approved by shareholders at the 2017 AGM and is included for reference.

### Gerard Kleisterlee

Chair of REMCO

March 13, 2019

# Annual Report on Remuneration

The Annual Report on Remuneration sets out:

- REMCO and its responsibilities and activities;
- an illustration of Shell's strategy and link to remuneration and a summary of remuneration policy implementation in 2018 and 2019;
- the statement of the planned implementation of policy in 2019; and
- Directors' remuneration for 2018.

The base currency in this Annual Report on Remuneration is the euro, as this is the currency of the base salary of the Executive Directors. Where amounts are shown in other currencies, an average exchange rate for the relevant year is used, unless a specific date is stated, in which case the average exchange rate for the specific date is used.

## REMUNERATION COMMITTEE

The following Directors were members of REMCO during 2018:

- Gerard Kleisterlee (Chair of REMCO);
- Catherine J. Hughes;
- Sir Nigel Sheinwald; and
- Gerrit Zalm.

Biographies of the current members are given on pages 82-87; REMCO meeting attendance is given on page 100.

REMCO's key responsibilities in respect of Executive Directors include:

- setting the remuneration policy;
- agreeing performance frameworks, setting targets and reviewing performance;
- determining actual remuneration and benefits; and
- determining contractual terms.

In addition, REMCO has the responsibility for determining the Chair of the Board's remuneration and for recommending and monitoring the level and structure of remuneration for Senior Management.

REMCO operates within its terms of reference, which are regularly reviewed. They were last updated on March 13, 2019 and are available at [www.shell.com](http://www.shell.com).

Advice from within Shell on various subjects, including the Executive Directors' annual bonus scorecard architecture and the remuneration of Senior Management, was provided by:

- Ben van Beurden, CEO;
- Ronan Cassidy, Chief Human Resources & Corporate Officer and Secretary to REMCO; and
- Stephanie Boyde, Executive Vice President Remuneration & HR Operations.

The Chair of the Board and the CEO were consulted on remuneration proposals affecting the CEO and the CFO, respectively.

Following a competitive tender process for a shortlist of advisors approved by REMCO, PwC was selected by management to provide external advice regarding developments in remuneration market practice and Shell's remuneration structures. This selection was on the basis of credentials for assessing the risk profile of policies and their knowledge of investors' expectations and international market practice in the oil industry and other long-term businesses. PwC is a member of the Remuneration Consultants Group and operates under the group's Code of Conduct when providing

consulting advice to clients. REMCO is satisfied that the advice provided was objective and independent. The total fees paid to PwC in relation to the advice were £60,965 (excluding value-added tax). PwC provided other consultancy and accountancy services to Shell during the year. However, REMCO is satisfied that this does not compromise the independence of the advice provided to REMCO on executive remuneration matters.

REMCO also met with Andrew Ninian from the Investment Association in July, for a discussion regarding shareholder views on executive director remuneration practices and developments. No fee was paid for this meeting.

During 2018, REMCO met five times and its activities included:

- setting annual bonus performance measures and targets;
- deciding on base salaries for the CEO and the CFO;
- determining the 2017 annual bonus outcomes;
- determining vesting of the 2015 LTIP award for the CEO and the CFO;
- approving the 2017 Directors' Remuneration Report;
- discussing outcome of 2018 AGM voting on remuneration and consulting with major shareholders;
- tracking external developments and assessing their impact on Shell's Remuneration Policy;
- considering the energy transition in the context of long-term remuneration; and
- reviewing and considering the Directors' Remuneration Policy in preparation for the 2020 AGM vote.

## PRINCIPLES

The principles underpinning the Remuneration Committee's approach to executive remuneration serve as the foundation for everything we do and are listed below.

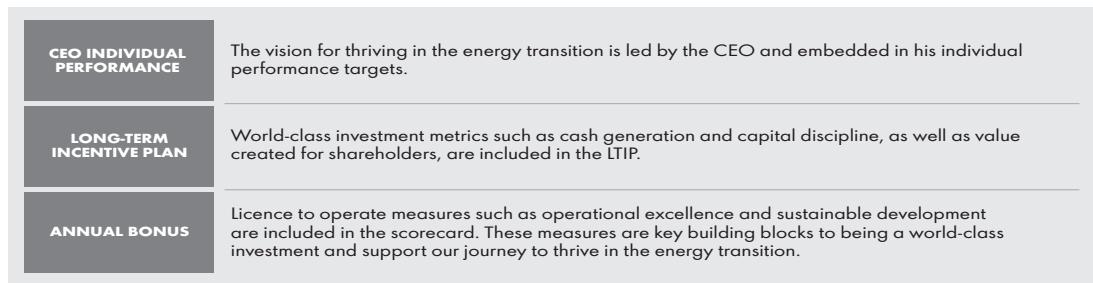
- Alignment with Shell's strategy: the Executive Directors' compensation package should be strongly linked to the achievement of stretching targets that are seen as indicators of the execution of Shell's strategy.
- Pay for performance: the majority of the Executive Directors' compensation (excluding benefits and pensions) should be linked directly to Shell's performance through variable pay instruments.
- Competitiveness: remuneration levels should be determined by reference internally against Shell's Senior Management and externally against companies of comparable size, complexity and global scope.
- Long-term creation of shareholder value: Executive Directors should align their interests with those of shareholders by holding shares in Royal Dutch Shell plc (the Company).
- Consistency: the remuneration structure for Executive Directors should generally be consistent with the remuneration structure for Shell's Senior Management. This consistency builds a culture of alignment with Shell's purpose and a common approach to sharing in Shell's success.
- Compliance: decisions should be made in the context of the Shell General Business Principles and Code of Conduct. Additionally, REMCO should ensure compliance with applicable laws and corporate governance requirements when designing and implementing policies and plans.
- Risk assessment: the remuneration structures and rewards should meet risk-assessment tests to ensure that shareholder interests are safeguarded and that inappropriate actions are avoided.

## Strategy and link to 2018 remuneration

### Strategy



### How the strategy links to the CEO's variable pay



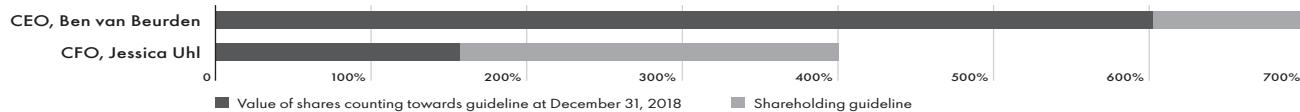
See "CEO pay scenarios" on page 143.

## Remuneration at a glance

	2018	2019	2020	2021	2022	2023
<b>FIXED PAY</b>	<b>Base salary:</b> CEO: €1,527,000 CFO: €95,000 <b>Benefits:</b> Typically include: car allowance, transport between home and office, and medical insurance. <b>Pension:</b> Retirement benefits maintained in base country pension arrangements.	<b>Base pay:</b> CEO: €1,557,000 (+2.0%) CFO: €1,015,000 (+2.0%) <b>Benefits:</b> No change <b>Pension:</b> No change				
<b>ANNUAL BONUS</b>	<b>Bonus opportunity as a percentage of salary:</b> Target: CEO: 150% CFO: 120% Maximum: CEO: 250% CFO: 240% Award: CEO: 196% CFO: 156% <b>Performance measures:</b> CFO – 30% Operational excellence – 50% Sustainable development – 20% <b>Subject to malus and clawback</b>	50% delivered in cash  50% delivered in shares	Target: CEO: 125% ( <b>reduced</b> ) CFO: 120% Maximum: CEO: 250% CFO: 240% <b>Performance measures:</b> No change  <b>Shares subject to three-year holding period which applies beyond an Executive Director's tenure</b>			
<b>LONG-TERM INCENTIVE PLAN</b>	<b>LTIP award as a percentage of salary:</b> Target: CEO: 340% CFO: 270% Maximum: CEO: 680% CFO: 540% <b>Performance measures:</b> Absolute FCF: 25% Relative TSR: 25% Relative ROACE growth: 25% Relative CFFO growth: 25% <b>Subject to malus and clawback</b>		<b>LTIP award as a percentage of salary:</b> No change <b>Performance measures:</b> Absolute FCF: 22.5% Relative TSR: 22.5% Relative ROACE growth: 22.5% Relative CFFO growth: 22.5% Absolute Energy transition: 10%		<b>Vested shares subject to three-year holding period which applies beyond an Executive Director's tenure</b>	

## Executive Directors' shareholding

% of base salary



■ Value of shares counting towards guideline at December 31, 2018 ■ Shareholding guideline

## 2016 LTIP vesting

	2016	2017	2018	2019	2020	2021
<b>Performance measures (all relative):</b> TSR: 30% EPS growth: 30% CFFO growth: 20% ROACE growth: 20% <b>Subject to malus and clawback</b>				<b>1 March 2019</b> Vesting 190% TSR: 1 <sup>st</sup> EPS growth: 1 <sup>st</sup> CFFO growth: 1 <sup>st</sup> ROACE growth: 2 <sup>nd</sup>		

**Three-year performance period followed by two-year holding period (voluntarily extended to three years)**

### STATEMENT OF 2019 PLANNED IMPLEMENTATION OF POLICY

The Directors' Remuneration Policy on pages 139-147 took effect from May 23, 2017 and will be effective until the 2020 AGM. This section describes elements that apply for 2019, some of which have changed compared with 2018 within the boundaries of the policy.

#### COMPARATOR GROUP

The 2019 benchmarking comparator group is unchanged from 2018 and consists of the other oil majors (BP, Chevron, ExxonMobil, and Total) as well as a selection of major Europe-based companies.

The comparator companies are reviewed by REMCO as part of the Remuneration Policy review every three years. The other oil majors are included in the comparator group as these represent our closest direct competitors operating in similar market conditions. The Europe-based companies are selected based on their size, complexity and global reach. REMCO uses benchmark data from these companies only as a guide to the competitiveness of the remuneration packages. We do not seek to position our remuneration at any defined point against the benchmarked positions.

#### 2019 European comparator group

Allianz	Daimler	Rio Tinto
AstraZeneca	Diageo	Roche
BAT	GlaxoSmithKline	Siemens
Bayer	Nestle	Unilever
BHP Billiton	Novartis	Vodafone

#### EXECUTIVE DIRECTORS

##### Salaries

Effective from January 1, 2019, the base salaries were set at €1,557,000 (+2.0%) for Ben van Beurden, CEO and at €1,015,000 (+2.0%) for Jessica Uhl, CFO.

When determining base salaries, REMCO mainly considered: the external market positioning of the Executive Directors' compensation packages; Senior Management salaries; the planned average increases for 2019 for other employees across three major countries (the Netherlands, the UK and the USA); the impact of the increase on other elements of the package; the current economic conditions; and Shell's own performance.

##### Annual bonus

There are no changes to the scorecard measures and weightings for 2019. The measures remain aligned with a number of our performance indicators set out on pages 27-28, and are comprised of cash flow from operating activities, operational excellence and sustainable development measures.

Annual bonus scorecard targets are not disclosed prospectively because to do so in a meaningful manner would require the disclosure of commercially sensitive information. As in previous years, scorecard targets will be disclosed in the subsequent Directors' Remuneration Report when they are no longer deemed to be commercially sensitive.

For the 2019 performance year, REMCO has removed the personal performance element of the annual bonus award for the Executive Directors.

This change was discussed with shareholders during 2018 and is intended to simplify the bonus award structure in response to shareholder feedback.

In addition, the target annual bonus for the CEO has been reduced from 150% to 125% of base salary. The maximum opportunity remains unchanged and is therefore now mathematically twice the target. This change is intended to eliminate the asymmetry that existed in the bonus award structure for the CEO and is discussed in the REMCO Chair's Statement on pages 124-125.

As in the prior year, 50% of the annual bonus awarded for the 2019 performance year will be delivered in cash and 50% will be delivered in shares subject to a three-year holding period which remains in force beyond an Executive Director's tenure.

##### Long-term Incentive Plan

On February 1, 2019, a conditional award of performance shares under the LTIP was made to the Executive Directors resulting in 194,625 Royal Dutch Shell plc A shares (A shares) being conditionally awarded to Ben van Beurden and 49,927 Royal Dutch Shell plc A American Depository Shares (A ADSs) to Jessica Uhl. The award had a face value of 340% (maximum vesting outcome 680%) of the base salary for the CEO and 270% (maximum vesting outcome 540%) of the base salary for the CFO, excluding potential share price appreciation and dividends. In making these awards, REMCO considered the Company's share price and determined that there was no significant share price volatility that would require an adjustment to the size of the awards.

For LTIP awards made in 2019, performance will be assessed over a three-year period based on four financial measures and a new energy transition condition. They are also subject to a TSR underpin such that if the TSR ranking is fourth or fifth, the level of the 2019 award that can vest on the basis of the other measures will be capped at 50% of the maximum.

Further information on the rationale for the new performance condition is set out in the REMCO Chair's statement on page 124 and the remaining financial measures were rebalanced accordingly. Vested LTIP shares are subject to a three-year holding period which remains in force beyond an Executive Director's tenure.

Relative performance measures:

- TSR, calculated in dollars using a 90-day averaging period around the start and end of the performance period (22.5%);
- ROACE growth (22.5%). For this purpose, in order to facilitate the comparison, the calculation of ROACE differs from that described in "Performance indicators" on page 27 as there is no adjustment for after-tax interest expense; and
- Cash flow from operating activities growth (22.5%).

The vesting schedule for the relative measures is unchanged from 2018.

Absolute performance measures:

- FCF (22.5%);
- Energy Transition (10%)

## FCF

The target for FCF, along with the ranges for threshold and outstanding performance, will be set by reference to Shell's annual operating plans, being the aggregate of our plan FCF targets over the three-year performance period. Given FCF is heavily influenced by the volatility of oil prices, the annual operating plans are updated each year to set an annual target to reflect a changing oil price premise. As a result, FCF targets are set annually for each annual operating plan and will only be disclosed in aggregate retrospectively after the three-year period. While consideration has been given to setting a three-year target at the outset, REMCO has determined that such an approach would result in adjustments for oil price premise and other matters at the end of the period, given the unpredictability and volatility in oil prices. REMCO has a long-standing 'no adjustments' policy and therefore believes a more appropriate target-setting approach is to set the target based on the aggregation of the annual operating plans.

20% of the maximum available under this measure will be payable for threshold performance, rising to full vesting of that measure for outstanding performance. A straight-line vesting schedule will apply for performance between threshold and outstanding.

## Energy transition

This is a new condition introduced for the 2019 award within the boundaries of the approved policy. The energy transition condition is focussed on Shell's strategic ambition to thrive in the energy transition and supports delivery of Shell's NCF ambition. The condition will consist of a mix of measures that set the foundations to contribute to Shell's strategic ambitions in the longer term:

- **Net Carbon Footprint:** a target for reducing the NCF of the energy products Shell sells (a carbon intensity measure that takes into account their full life-cycle emissions, including customers' emissions associated with using them). For the 2019 award, the target is a 2.3% reduction in NCF from the 2016 baseline NCF, which is disclosed in the 2018 Climate change section on page 77. This target is aligned with the trajectory of our NCF ambition set out in November 2017;
- **The growth of our power business:** Growth in the use of electricity and continuing decarbonisation of electricity by shifting to renewables and gas-fired power generation is recognised as a key lever in all decarbonisation scenarios. Our ambition to grow the power business is based on selective investments in generation, as well as in business models based on reselling power generated by others;
- **Advanced biofuels technology:** Biofuels are expected to play a valuable role in the changing energy mix and are likely to be the key decarbonisation levers for sectors that need to continue to use liquid fuels in the foreseeable future, such as some segments of transport and industry. For society and for Shell, commercialisation of advanced biofuel technology is one of the most important steps in energy transition;
- **The development of systems to capture and absorb carbon:** Carbon capture and storage (CCS) and carbon sinks, such as nature-based solutions are required as part of the global response to climate change.

Energy transition targets, with the exception of the NCF target, are considered to be commercially sensitive and will therefore be disclosed retrospectively. Annual updates on our progress in relation to the measures will be provided.

The vesting outcome for the part of the award weighted to the energy transition condition will range from 0% to 200% and will be determined by REMCO in its

sole discretion, after taking advice from the CSRC. In doing so, REMCO will take into account, in relation to each element, progress over the Performance Period relative to nearer-term aims in pursuit of the long-term ambition announced by Shell to reduce the NCF of energy products sold by around half by 2050, and by around 20% by 2035, in step with society's drive to meet the goals of the Paris Agreement. However, it is important to note that performance against these elements will serve simply as a starting point for REMCO who will also take into account any other considerations they deem appropriate, including (without limitation) the relative importance of these elements in meeting the long-term ambition announced by Shell. For example, REMCO may decide to allocate a greater emphasis to overall performance in relation to the NCF than the other three elements.

## Adjustment (malus) and recovery (clawback)

Variable pay elements are subject to adjustment (malus) and recovery (clawback) provisions, which may apply in case of direct responsibility or supervisory accountability.

REMCO may adjust an award, for example by lapsing part or all of it, reducing the number of shares which would otherwise vest, by imposing additional conditions on it, or imposing a new holding period. Award adjustments may be made as a result of: Shell restating the relevant year(s) financial statements due to material non-compliance with any financial reporting requirement; an individual's misconduct or misconduct through the individual's direction or non-direction, which influenced the measures and outcomes used in determining the individual's annual bonus or LTIP outcome; any material breach of health and safety or environment regulations; serious reputational damage to Shell; material failure of risk management; and other exceptional events at the discretion of REMCO.

Adjustment may also apply after employment ends if the individual: (a) breaches any provision of his/her employment contract which applies after cessation of employment or any provision of an agreement entered into on termination of employment; (b) is found to have committed fraud or dishonesty with respect to Shell; (c) wilfully damaged the assets of or engaged in misconduct which, in any material respect, is or was injurious to Shell; (d) wrongfully disclosed or used any proprietary or confidential information which is related to the business, properties or affairs of Shell and the release of which is detrimental, in any material respect, to the competitive position or goodwill of Shell; (e) engaged in any activity which, in any material respect, reasonably constituted a conflict with the interests of Shell; or (f) breached any business principle or a term of any code of conduct applicable to employees or former employees of Shell.

Clawback applies in case of restatement of financial statements due to material non-compliance with any financial reporting requirement or as a result of the individual's misconduct or misconduct through the individual's direction or non-direction, which influenced the measures and outcomes used in determining his/her annual bonus or LTIP outcome.

## Pension

Ben van Beurden's pension arrangements comprise a defined benefit plan for which the maximum pensionable salary has increased to €96,729 and a net pay defined contribution pension plan with an employer contribution of 27% of salary in excess of €96,729. This is the standard contribution percentage applicable to all of the Company's participating Netherlands employees in Ben van Beurden's age bracket. There are no changes to the pension plans in which Jessica Uhl participates.

### NON-EXECUTIVE DIRECTORS' FEES

#### Non-executive Directors' fees 2018

	€	Other fees
Chair of the Board	850,000	Non-executive
Non-executive Director	135,000	Directors
Senior Independent Director	55,000	receive an additional fee
Audit Committee		
Chair [A]	60,000	of €5,000 for
Member	25,000	any Board meeting involving intercontinental travel – except for one meeting a year held in a location other than The Hague.
Corporate and Social Responsibility Committee		
Chair [A]	35,000	
Member	17,250	
Nomination and Succession Committee		
Chair [A]	25,000	meeting
Member	12,000	a year held in a location other
Remuneration Committee		
Chair [A]	40,000	than The Hague.
Member	17,250	

[A] The chair of a committee does not receive an additional fee for membership of that committee

The Chair's fee is determined by REMCO and the annual fee for Charles O. Holliday was set at €850,000 upon appointment in 2015 and will remain unchanged for 2019. The Chair of the Board does not receive any additional fee for chairing the Nomination and Succession Committee or attending any other Board committee meeting.

The other Non-executive Directors receive a basic fee. There are additional fees for the Senior Independent Director, a Board committee chair or a Board committee membership for each committee. Non-executive Directors receive an additional fee of €5,000 for any Board meeting involving intercontinental travel, except for one meeting a year held in a location other than The Hague. Business expenses (including transport between home and office and occasional business-required spouse travel) and associated tax are paid or reimbursed by the Company. The Chair has use of Company-provided accommodation in The Hague.

The Board reviews Non-executive Directors' fees periodically to ensure that they are aligned with those of other major listed companies using the FTSE 30 and the Europe Comparator group as the primary points of reference. The last review was carried out in 2018 and fees will remain unchanged for 2019.

## DIRECTORS' REMUNERATION FOR 2018

### NON-EXECUTIVE DIRECTORS' REMUNERATION FOR 2018

	Single total figure of remuneration for Non-executive Directors (audited)				€ thousand	
	Fees		Taxable benefits[A]		2018	2017
	2018	2017	2018	2017	2018	2017
Ann Godbehere [B]	97	N/A	–	N/A	97	N/A
Euleen Goh	220	225	–	–	220	225
Charles O. Holliday	850	850	75[C]	83	925	933
Catherine J. Hughes [D]	199	99	7	–	206	99
Gerard Kleisterlee	216	196	7	–	223	196
Roberto Setubal [E]	190	50	–	3	190	53
Sir Nigel Sheinwald	180	163	6	6	186	169
Linda G. Stuntz	197	202	13	–	210	202
Hans Wijers	93	237	1	7	94	244
Gerrit Zalm [F]	177	117	–	–	177	117

[A] UK regulations require the inclusion of benefits where these would be taxable in the UK, on the assumption that Directors are tax residents in the UK. On this premise, the taxable benefits include the cost of Non-executive Director's occasional business-required spouse travel. The Company also pays for travel between home and the head office in The Hague, where Board and committee meetings are typically held, as well as related hotel and subsistence costs. For consistency, these business expenses are not reported as taxable benefits as for most Non-executive Directors this is international travel and hence would not be taxable in the UK.

[B] Appointed as a Director with effect from May 23, 2018.

[C] Including the use of an apartment (2018: €70,015; 2017: €68,612).

[D] Appointed as a Director with effect from June 1, 2017.

[E] Appointed as a Director with effect from October 1, 2017.

[F] As a result of arrangements related to Gerrit Zalm's attendance at Board and committee meetings detailed in "Corporate governance" on page 79 of the 2017 Annual Report, his fees for 2017 have been pro-rated and exclude the period July 1, 2017 to October 24, 2017.

## EXECUTIVE DIRECTORS' REMUNERATION FOR 2018

	Single total figure of remuneration for Executive Directors (audited)				€ thousand	
			Ben van Beurden		Jessica Uhl	
			2018	2017	2018	2017
Salaries		1,527	1,490	995	796	
Taxable benefits		32	30	49	44	
Total fixed remuneration		1,559	1,520	1,044	840	
Annual bonus [A]		3,000	3,000	1,550	1,050	
LTIP [B]		15,209	4,021	1,783	623	
Total variable remuneration		18,209	7,021	3,333	1,673	
<b>Total direct remuneration</b>		19,768	8,541	4,376	2,513	
Pension [C]		369	368	196	287	
Tax equalisation [D]		–	–	289	194	
<b>Total remuneration including pension and tax equalisation</b>		20,138	8,909	4,862	2,994	
in dollars		23,790	10,067	5,744	3,383	
in sterling		17,817	7,811	4,302	2,625	

[A] The full value of the bonus, comprising both the 50% delivered in cash and 50% bonus delivered in shares. For 2018, the market price of A shares on February 21, 2019 (€27,745), was used to determine the number of shares delivered, resulting in 28,045 A shares for Ben van Beurden and 14,490 A shares for Jessica Uhl. For 2017, 50% of the bonus was delivered in shares and the market price of A shares on February 22, 2018 (€25,75), was used to determine the number of shares delivered, resulting in 30,102 A shares for Ben van Beurden and 10,536 A shares for Jessica Uhl.

[B] Remuneration for performance periods of more than one year, comprising the value of released LTIP awards. The amounts reported for 2018 relate to the 2016 LTIP award, which vested on March 1, 2019, at the market price of €27,335 and \$62.32 for A shares and A ADSs respectively. The value in respect of the LTIP is calculated as the product of: the number of shares of the original award multiplied by the vesting percentage; plus accrued dividend shares; and the market price of A shares or A ADSs at the vesting date. The market price of A ADSs is converted into euros using the exchange rate on the respective date. Ben van Beurden also received a release of 107,791 RDS A shares under the 2016 Deferred Bonus Plan (DBP) on March 1, 2019. The original deferred bonus share awards, which are those represented by the deferred bonus and dividend shares accrued on these shares are not considered as long-term remuneration as they relate to the 2015 short-term annual bonus value.

[C] For Ben van Beurden, the amount reported for pension consists of a net pay defined contribution amount of €369,400. The amount to be reported for his defined benefit pension accrual is zero, calculated in accordance with UK reporting requirements. For Jessica Uhl, the amount reported for pension consists of a defined contribution amount of €94,050 and a defined benefit pension accrual €102,436.

[D] Includes tax equalisation of pension contributions to foreign pension plan(s), when they are taxable above a certain pensionable salary threshold or once a double tax treaty exemption ceases, under Dutch law. Tax equalisation is applied for the loss of pension relief for members of a foreign pension plan(s) in their host country.

### **NOTES TO THE SINGLE TOTAL FIGURE OF REMUNERATION FOR EXECUTIVE DIRECTORS TABLE (AUDITED)**

#### **Salaries**

As disclosed in the 2017 Directors' Remuneration Report, REMCO set Ben van Beurden's base salary for 2018 at €1,527,000 (+2.5% compared with 2017) effective from January 1, 2018, and Jessica Uhl's base salary at €995,000 (+1.5% compared with 2017) effective from January 1, 2018.

#### **Taxable benefits**

Executive Directors received car allowances or lease cars, transport between home and office, occasional business-required spouse travel, as well as employer contributions to life and medical insurance plans.

#### **Annual bonus**

The scorecard measures are grouped into three sections: financial, operational excellence and sustainable development. At the beginning of the year, REMCO sets a target range and weighting for each measure. The actual outcome for each measure results in a score of between zero and two, with a score of one representing "on target". These scores are multiplied by the respective weighting of each measure and aggregated, resulting in a mathematical scorecard outcome of between zero and two. REMCO may then make an adjustment to the overall scorecard outcome in view of the wider business performance for the year.

For 2018, the Executive Director's individual performance was also considered in determining their annual bonus through the application of a multiplier between zero and 1.2.

50% of the annual bonus is delivered in shares subject to a three-year holding period which extends beyond the Executive Directors tenure.

#### **Determination of the 2018 annual bonus**

The mathematical scorecard outcome for 2018 was 1.31 and REMCO approved this outcome without exercising discretion. REMCO's considerations in determining this outcome are outlined in the REMCO Chair's statement on page 120.

REMCO determined an individual performance factor of 1.0 for the CEO and a final bonus outcome of €3,000,000 which is 131% of target and 79% of maximum. REMCO considered that it was comfortable with the outcome for 2018 in the context of business performance and noted that the higher percentage of maximum relative to the percentage of target is a consequence of having capped the maximum bonus opportunity at less than 50% of the target award. This asymmetry between target and maximum was created in 2008, when REMCO increased the target to align to market pay but did not increase the maximum opportunity given its exercise of restraint on the overall pay opportunity. For 2019, the target has been reduced to eliminate this asymmetry. Further commentary is provided in the REMCO Chair's statement on pages 124-125.

REMCO determined an individual performance factor of 1.0 for the CFO and determined a final bonus outcome of €1,550,000 which is 130% of target and 65% of maximum.

The table below summarises the 2018 annual bonus scorecard measures including their weightings, targets and outcomes. Charts illustrating the calculation of the final 2018 bonus payable to the CEO and CFO are also provided.

## 2018 annual bonus outcome (audited)

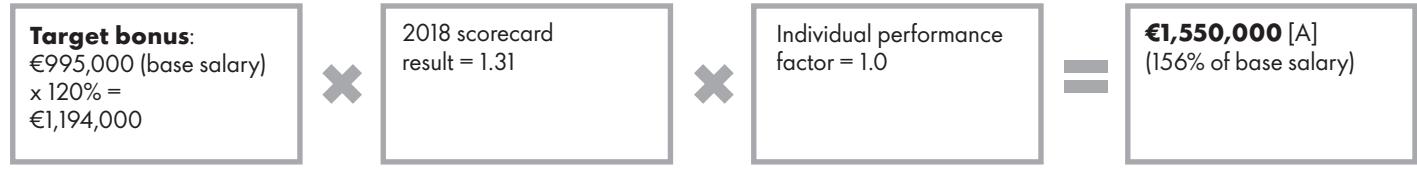
Measures	Weight (% of scorecard)	Threshold	Target set	Outstanding	Result achieved	Score (0-2)
<b>Cash flow from operating activities (\$ billion)</b>	30%	36	42	48	53	2.00
<b>Operational excellence</b>	50%					1.04
Production (kboe/d)	12.5%	3,638	3,750	3,863	3,666	0.25
LNG liquefaction volumes (mtpa)	12.5%	32.5	33.5	34.5	34.3	1.82
Refinery and chemical plant availability (%)	12.5%	90.1	92.1	94.1	91.9	0.90
Project delivery on schedule (%)	6.25%	60	80	100	75	0.75
Project delivery on budget (%)	6.25%	105	100	95	97	1.65
<b>Sustainable development</b>	20%					0.95
Total recordable case frequency (injuries/million hours)	5%	0.9	0.7	0.5	0.9	0.00
Operational Tier 1 and 2 process safety events (number)	5%	155	125	95	121	1.13
Upstream and Integrated Gas GHG intensity (tonnes of CO <sub>2</sub> equivalent/tonne of hydrocarbon production available for sale)	4%	0.172	0.164	0.156	0.158	1.75
Refining GHG intensity (tonnes CO <sub>2</sub> equivalent per Solomon's Utilized Equivalent Distillation Capacity (UEDC™))	4%	1.10	1.05	1.00	1.05	1.00
Chemicals GHG intensity (tonnes CO <sub>2</sub> equivalent/tonne of petrochemicals production)	2%	1.02	0.97	0.92	0.96	1.20
	100%					
<b>Mathematical scorecard outcome</b>						1.31

## 2018 bonus outcome calculation

### BEN VAN BEURDEN



### JESSICA UHL



[A] Rounded downwards to the nearest €50,000, and half was delivered in shares subject to a three-year holding period which extends beyond the Executive Director's tenure.

### LTIP vesting

In 2016, Ben van Beurden and Jessica Uhl were each granted a conditional award of performance shares under the LTIP, with a maximum vesting of two times the original award, excluding share price appreciation and dividends.

For Ben van Beurden, this award was based on 340% of his base salary, giving a maximum vesting of 680%, excluding share price appreciation and dividends. Given volatility in the share price in the decision-making period leading up to the 2016 award, REMCO decided that the share price used to determine the number of shares awarded should be based on a three-month average rather than its usual practice of the share price at the date of award. Ultimately by the time of award, the volatility had diminished with the difference between the three-month average used and the spot rate being less than 4%.

Jessica Uhl was granted an award of 13,800 A ADSs prior to her appointment as an Executive Director.

The LTIP vesting outcome at the end of the performance period (January 1, 2016, to December 31, 2018) is illustrated in the following LTIP vesting outcome table. REMCO also considered the underlying performance of Shell and decided to vest 190% of shares under the LTIP, using no discretion, resulting in 556,406 A shares for Ben van Beurden and 32,501 A ADSs for Jessica Uhl. At vesting, these shares (including accrued dividend shares) had a value of €15,209,358 and \$2,025,462 respectively. In making their decision, REMCO noted the high value of the vesting, including share price appreciation and determined that the vesting was warranted as it reflected Shell's outstanding performance in the period. It also considered the impact of share buybacks in 2018 on the vesting outcome of EPS measure. REMCO noted that the share buybacks had no impact on the rank order of Shell against the comparator group (BP, Chevron, ExxonMobil and Total) and determined that it was appropriate for the EPS measure to vest without adjustment. Further information on REMCO's considerations is provided in the REMCO Chair's statement on pages 121-122.

The CEO's vested awards are subject to a further two-year holding period. However, he has voluntarily agreed to hold these shares for three years in accordance with the holding policy introduced with the 2017 remuneration policy.

### LTIP vesting outcome

Measures	Weighting	Rank versus peers	Vesting
TSR	30%	12345	60%
EPS growth [A]	30%	12345	60%
ROACE growth	20%	12345	30%
Cash flow from operating activities growth	20%	12345	40%
<b>Total</b>			<b>190%</b>

[A] Diluted EPS growth on a current cost of supplies basis.

### Pension

Ben van Beurden's pension arrangements comprise a defined benefit plan with a maximum pensionable salary of €94,446, and a net pay defined contribution pension plan with a 2018 employer contribution of 24% of salary in excess of €94,446 up to April 30, 2018 and 27% from May 1, 2018, when he entered the next age bracket for contribution levels, with the option to take cash as an alternative to pension contributions (in either case subject to income tax). The CEO has elected to take his benefit in the form of contributions throughout 2018. The employer contribution levels are in line with those applicable to other Netherlands-based employees.

Jessica Uhl is a member of the Shell US retirement benefit arrangements, which include the Shell Pension Plan, a defined benefit plan, and a defined contribution plan with an employer contribution of 10% of salary. As for all other pre-2013 members of the Shell Pension Plan, she has an annual choice of two accrual formulas with different forms of benefits, one in the form of a lifetime annuity and the other allows for a lump-sum payment. She elected to accrue benefits for 2018 under the latter. She also has a deferred Dutch defined benefit pension plan, as a result of a prior Shell assignment on local Dutch terms and conditions. The employer contribution levels are lower than those applicable to other US employees and Jessica Uhl's bonus is not pensionable as an Executive Director.

See further details on pension arrangements on pages 137-138.

### Scheme interests awarded to Executive Directors in 2018 (audited)

Scheme interest type	Type of interest awarded	End of performance period	Target award[A]	€	
				Potential amount vesting	
LTIP	Performance shares	December 31, 2020	Ben van Beurden: 190,001 A shares, equivalent to 3.4 x base salary or €5,191,800. Jessica Uhl: 49,857 A ADS shares, equivalent to 2.7 x base salary or €2,686,500.	0%	Maximum number of shares vesting is 200% of the shares awarded, before dividends, equivalent to €10,383,600 for Ben van Beurden and €5,373,000 for Jessica Uhl.

[A] The award for Ben van Beurden was based on the closing market price on February 2, 2018, for A shares of €27.325. The award for Jessica Uhl was based on the closing market price on February 2, 2018, for A ADSs of \$67.300.

[B] Minimum performance relates to the lowest level of achievement, for which no reward is given.

[C] The equivalent values exclude share price movements and accrued dividend shares.

The measures and weightings applying to LTIP awards made in 2018 were: FCF (25%); TSR (25%); ROACE growth (25%) and cash flow from operating activities growth (25%).

The LTIP will vest on the basis of the absolute performance of FCF and the ranking of the three relative performance measures, as indicated in the table below.

### **2018 LTIP measures and vesting schedule**

PERFORMANCE MEASURE AND WEIGHTING	LINK TO STRATEGY	VESTING SCHEDULE (% OF INITIAL LTIP AWARD)
<b>Free cash flow (25%)</b>	Recognition of the importance of generating cash after net capital expenditure to service and reduce debt, pay dividends, buy back shares and make future capital investments.	Maximum – 200% Target – 100% Threshold – 40% Below threshold – 0%
<b>TSR (25%)</b>	Assessment of actual wealth created for shareholders.	1st – 200% 2nd – 150% 3rd – 80% 4th or 5th – nil
<b>ROACE growth (25%)</b>	Indicator of capital discipline.	
<b>Cash flow from operating activities growth (25%)</b>	Source of capital expenditure commitments which support sustainable growth based on portfolio and cost management.	

If the TSR ranking is fourth or fifth, the level of the award that can vest on the basis of the three other measures will be capped at 50% of the maximum.

#### **FCF progress**

As the FCF target is set based on the cumulative total of the FCF targets for the operating plans of the relevant performance periods these targets are not disclosed at award. Disclosure of the target and progress towards it will be made public at the end of each year in the performance period.

#### **FCF progress to date on outstanding 2017 LTIP award**

At December 31, 2018, FCF performance is above target, at more than \$27 billion for 2017 (target \$21 billion) and \$39 billion for 2018 (target \$29 billion). As one year of FCF performance remains, and 75% of the award is subject to relative performance conditions, this does not reflect the potential vesting of the award.

#### **FCF progress to date on outstanding 2018 LTIP award**

At December 31, 2018, FCF performance, at more than \$39 billion for 2018, is above target (\$29 billion). As two years of FCF performance remain, and 75% of the award is subject to relative performance conditions, this does not reflect the potential vesting of the award.

To deliver the shares under the LTIP, market-purchased shares are used rather than the issuing of new shares. This approach does not have a dilutive impact on shareholders.

### **STATEMENT OF DIRECTORS' SHAREHOLDING AND SHARE INTERESTS (AUDITED)**

#### **SHAREHOLDING GUIDELINES**

REMCO believes that Executive Directors should align their interests with those of shareholders by holding shares in the Company. The CEO is expected to build a shareholding with a value of 700% of base salary, and other Executive Directors 400% of base salary. Only unfettered shares count. Unvested shares held under DBP and any shares delivered but subject to holding requirements, also count towards the guidelines. As at March 4, 2019, Ben van Beurden held shares worth 1,177% of his base salary. At March 4, 2019, Jessica Uhl held 311% of her base salary and has until March 2022 to meet her shareholding target. Non-executive Directors are encouraged to hold shares with a value equivalent to 100% of their fixed annual fee and maintain that holding during their tenure.

#### **Executive Directors' shareholding (audited)**

Shareholding guideline (% of base salary)	Value of shares counting towards guideline (% of base salary at December 31, 2018)[A]	
	A	B
Ben van Beurden	700%	602%
Jessica Uhl	400%	157%

[A] Representing the value of share interests and the estimated after-tax value of DBP shares (not subject to performance conditions).

#### **DIRECTORS' SHARE INTERESTS**

The interests (in shares of the Company or calculated equivalents) of the Directors in office during 2018, including any interests of their connected persons, are set out in the table below.

#### **Directors' share interests [A] (audited)**

	January 1, 2018		December 31, 2018	
	A shares	B shares	A shares	B shares
Ben van Beurden	132,979	–	281,524	–
Ann Godbehere	–	4,700[B]	–	4,700[B]
Euleen Goh	–	12,895	–	12,895
Charles O. Holliday	–	50,000[C]	–	50,000[C]
Catherine J. Hughes	4,080	46,904	4,080	46,904
Gerard Kleisterlee	5,254	–	5,254	–
Roberto Setubal	15,400[D]	–	15,400[D]	–
Sir Nigel Sheinwald	–	1,124	–	1,124
Linda G. Stuntz	–	12,400[E]	–	12,400[E]
Jessica Uhl	35,460[F]	–	61,097[G]	–
Hans Wijers	5,251	–	5,251	–
Gerrit Zalm	2,026	–	2,026	–

[A] Includes vested LTIP awards subject to holding conditions. Excludes unvested interests in shares awarded under the LTIP and DBP.

[B] Interests at May 23, 2018, when she was appointed as a Director. Held as 2,350 ADSs (RDS.B ADS). Each RDS.B represents two B shares.

[C] Held as 25,000 ADSs (RDS.B ADS). Each RDS.B represents two B shares.

[D] Held as 7,700 ADSs (RDS.A ADS). Each RDS.A represents two A shares.

[E] Held as 6,200 ADSs (RDS.B ADS). Each RDS.B represents two B shares.

[F] Held as 17,730 ADS (RDS.A ADS). Each RDS.A represents two A shares.

[G] Held as 10,941 RDS A shares and 25,078 ADS (RDS.A ADS). Each RDS.A represents two A shares.

The changes in Directors' share interests during the period from December 31, 2018, to March 13, 2019, were that Ben van Beurden's interests increased by 363,171 A shares, as 50% of his 2018 annual bonus was delivered in shares on February 22, 2019, and the 2016 LTIP and DBP

awards vested on March 1, 2019. Jessica Uhl's interests increased by 14,490 A shares, as 50% of her 2018 annual bonus was delivered in shares on February 22, 2019, and by 19,711 A ADSs as the 2016 LTIP award vested on March 1, 2019. The value of shares counting towards the shareholding guideline (as a % of base salary) for the CEO and CFO, were 1,177% and 311%, respectively, at March 4, 2019.

At March 13, 2019, the Directors and Senior Management (pages 82-90) of the Company beneficially owned, individually and in aggregate (including shares under option), less than 1% of the total shares of each class of the Company shares outstanding.

### Directors' scheme interests (audited)

	Share plan interests[A]					
	LTIP/PSP subject to performance conditions[B]		DBP not subject to performance conditions[C]		Total	
	2018	2017	2018	2017	2018	2017
Ben van Beurden	715,591	707,727	159,617	226,196	875,208	933,923
Jessica Uhl	130,180	89,901	—	—	130,180	89,901

[A] Includes unvested long-term incentive awards and notional dividend shares accrued at December 31. Interests are shown on the basis of the original awards. The shares subject to performance conditions can vest at between 0% and 200%. Dividend shares accumulate each year on an assumed notional LTIP/DBP award. Such dividend shares are disclosed and recorded on the basis of the number of shares conditionally awarded but, when an award vests, dividend shares will be awarded only in relation to vested shares as if the vested shares were held from the award date. Shares released during the year are included in the "Directors' share interests" table.

[B] Total number of unvested LTIP shares at December 31, including dividend shares accrued on the original LTIP award.

[C] The number of shares deferred from the bonus (original DBP award) and the dividend shares accrued on these at December 31. Delivery of the original DBP award and the related accrued dividend shares is not subject to performance conditions.

### DILUTION

In any 10-year period, no more than 5% of the issued ordinary share capital of the Company may be issued or issuable under executive (discretionary) share plans adopted by the Company, or 10% when aggregated with awards under any other employee share plan operated by the Company. To date, no shareholder dilution has resulted from these plans, although it is permitted under the rules of the plans subject to these limits.

### PAYMENTS TO PAST DIRECTORS (AUDITED)

Simon Henry left the Company on June 30, 2017. On March 1, 2019, Simon Henry's 2016 LTIP award vested at 190%. The award vested on a pro-rata basis for the period of employment during the performance period. The value at vesting of the LTIP shares was £3,920,034.

In addition, on March 1, 2019, Simon Henry's 2016 DBP award vested and he received a total of 63,399 RDS B shares, with a value at vesting of £1,499,069. While the original award of 51,393 RDS B shares was reported in the 2016 Directors' Remuneration Report, it is included again here in the interest of transparency. The remaining 12,006 RDS B shares represent accrued dividends paid in accordance with the plan and the value of these at vesting was £238,882.

Payments below €5,000 are not reported as they are considered de minimis.

### TSR PERFORMANCE AND CEO PAY

#### PERFORMANCE GRAPHS

The graphs compare the TSR performance of the Company over the past nine financial years with that of the companies comprising the Euronext 100 and the FTSE 100 share indices. The Board regards these indices as appropriate broad market equity indices for comparison, as they are the leading market indices in the Company's home markets.

### DIRECTORS' SCHEME INTERESTS

The table below shows the aggregate position for Directors' interests under share schemes at December 31. These are A shares for Ben van Beurden, and A ADSs for Jessica Uhl. During the period from December 31, 2018, to March 13, 2019, scheme interests have changed as a result of the vesting of the 2016 LTIP and DBP awards on March 1, 2019, and the 2019 LTIP awards made on February 1, 2019, as described on pages 135-136 and 128 respectively.

	Share plan interests[A]					
	LTIP/PSP subject to performance conditions[B]		DBP not subject to performance conditions[C]		Total	
	2018	2017	2018	2017	2018	2017
Ben van Beurden	715,591	707,727	159,617	226,196	875,208	933,923
Jessica Uhl	130,180	89,901	—	—	130,180	89,901

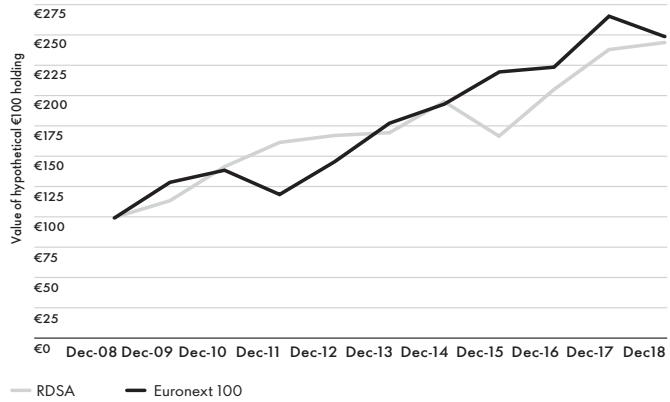
[A] Includes unvested long-term incentive awards and notional dividend shares accrued at December 31. Interests are shown on the basis of the original awards. The shares subject to performance conditions can vest at between 0% and 200%. Dividend shares accumulate each year on an assumed notional LTIP/DBP award. Such dividend shares are disclosed and recorded on the basis of the number of shares conditionally awarded but, when an award vests, dividend shares will be awarded only in relation to vested shares as if the vested shares were held from the award date. Shares released during the year are included in the "Directors' share interests" table.

[B] Total number of unvested LTIP shares at December 31, including dividend shares accrued on the original LTIP award.

[C] The number of shares deferred from the bonus (original DBP award) and the dividend shares accrued on these at December 31. Delivery of the original DBP award and the related accrued dividend shares is not subject to performance conditions.

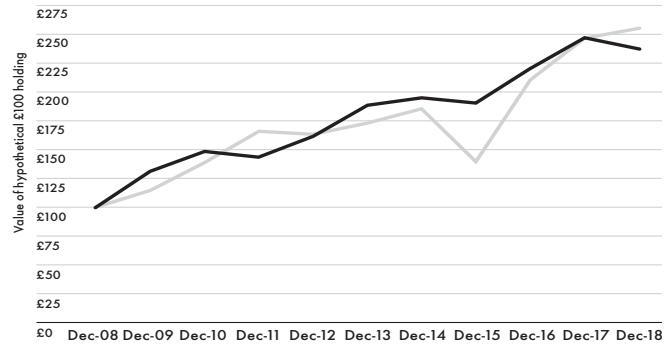
### Historical TSR performance (RDSA)

Growth in the value of a hypothetical €100 holding over nine years  
Euronext 100 comparison based on 30 trading day average values



### Historical TSR performance (RDSB)

Growth in the value of a hypothetical £100 holding over nine years  
FTSE 100 comparison based on 30 trading day average values



## CEO PAY OUTCOMES

The following table sets out the single total figure of remuneration, and the annual bonus payout and long-term incentive (LTI) vesting rates compared with the respective maximum opportunity, for the CEO for the last ten years.

### CEO pay outcomes

Year	CEO	Single total figure of remuneration (\$'000)	Annual bonus		
			payout maximum opportunity	LTI vesting rates against maximum opportunity	
2018	Ben van Beurden	20,138	79%	95%	
2017	Ben van Beurden	8,909	81%	35%	
2016	Ben van Beurden	8,593	66%	42%	
2015	Ben van Beurden	5,576	98%	8%	
2014	Ben van Beurden	24,198	94%	49%	
2013	Peter Voser	8,456	44%	30%	
2012	Peter Voser	18,246	83%	88%	
2011	Peter Voser	9,941	90%	30%	
2010	Peter Voser	10,611	100%	75%	
2009	Peter Voser	6,228	50%	0%	
2009	Jeroen van der Veer	3,748	66%	0%	

Peter Voser stood down on December 31, 2013 and was succeeded by Ben van Beurden. Ben van Beurden's single figure for 2014 was impacted by the increase in pension accrual (€10.695 million) calculated under the UK reporting regulations and tax equalisation (€7.905 million) as a result of his promotion and prior assignment to the UK. Jeroen van der Veer stood down on July 1, 2009, and Peter Voser took over from that date. Only remuneration relating to their position as CEO is included.

### CHANGE IN REMUNERATION OF CEO AND EMPLOYEES FROM 2017 TO 2018

The CEO data compares the remuneration of Ben van Beurden for 2018 with 2017. The comparator group consists of local employees in the Netherlands, the UK and the USA. This is considered to be a suitable employee comparator group because: these are countries with a significant Shell employee base; a large proportion of senior managers come from these countries; and REMCO considers remuneration levels in these countries when setting base salaries for Executive Directors.

Taxable benefits are those that align with the definition of taxable benefits applying in the respective country. In line with the "Single total figure of remuneration for Executive Directors" table, the annual bonus is included in the year in which it was earned.

### Change in remuneration of CEO and employees

	CEO	Employees
Salaries	2.5%	2.3%
Taxable benefits [A]	8.2%	24.9%
Annual bonus	0.0%	18.5%

[A] The increase in taxable benefits is principally due to the buyout of a medical insurance allowance paid to Netherlands employees who received a one-off payment of €4,935 in 2018.

## RELATIVE IMPORTANCE OF SPEND ON PAY

Distributions to shareholders by way of dividends and share buybacks and remuneration paid to or receivable by employees for the last five years are set out below, together with annual percentage changes.

### Relative importance of spend on pay

Year	Dividends and share buybacks[A]		Spend on pay (all employees)[B]	
	\$ billion	Annual change	\$ billion	Annual change
2018	20.2	29%	13.4	-6%
2017	15.6	4%	14.3	-9%
2016	15.0	25%	15.7	-8%
2015	12.0	-18%	17.1	5%
2014	14.6	-14%	16.4	0%

[A] Dividends paid, which includes the dividends settled in shares via our Scrip Dividend Programme, and repurchases of shares as reported in the "Consolidated Statement of Changes in Equity".

[B] Employee costs, excluding redundancy costs, as reported in Note 26 to the "Consolidated Financial Statements".

Spend on pay can be compared with the major costs associated with generating income by referring to the "Consolidated Statement of Income". Over the last five years, the average spend on pay was 5% of the major costs of generating income. These costs are considered to be the sum of: purchases; production and manufacturing expenses; selling, distribution and administrative expenses; research and development; exploration; and depreciation, depletion and amortisation.

## TOTAL PENSION ENTITLEMENTS (AUDITED)

During 2018, Ben van Beurden and Jessica Uhl accrued retirement benefits under defined benefit plans. The pension accrued under these plans at December 31, 2018, is set out below. The exchange rates used for conversion into euros and dollars are at December 31, 2018.

### Accrued pension (audited)

	Local	€	\$
Ben van Beurden [A]	€1,271	€1,271	\$1,453
Jessica Uhl [B]	\$1,231	€1,077	\$1,231

[A] The accrued retirement benefits are disclosed on a per annum basis. The normal retirement age for Ben van Beurden's defined benefit pension scheme increased from age 67 to age 68, effective January 1, 2018, due to changes in Dutch pension regulations. In accordance with all other Dutch employees similarly affected, his previously accrued pension benefits were adjusted on actuarial neutral terms to take account of the increase in retirement age. His accrued pension was €1,256,450 at December 31, 2017, after adjustment to take account of the increase in retirement age.

[B] Jessica Uhl has an annual choice of two accrual formulas with different forms of benefits, one in the form of a lifetime annuity and the other allows for a lump-sum payment. She elected to accrue benefits for 2018 under the latter and the eventual lump sum benefit is shown. She also has a deferred Dutch defined benefit pension plan, as a result of a prior Shell assignment on local Dutch terms and conditions. The age at which Jessica Uhl can receive any pension benefit without an actuarial reduction under this plan is 60. The value of the deferred pension benefit is €3,252 per annum.

The age at which Ben van Beurden can receive any pension benefit without actuarial reduction is 68 and for Jessica Uhl this is age 65 (in the US retirement plans). Any pension benefits on early retirement are reduced using actuarial factors to reflect early payment. No payments were made in 2018 regarding early retirement or in lieu of retirement benefits.

## Annual Report on Remuneration Continued

### BEN VAN BEURDEN

Ben van Beurden is a member of the "Stichting Shell Pensioenfonds", the pension plan for Shell employees in the Netherlands who joined before July 2013 that provides benefits in defined benefit form. Ben van Beurden is also a member of the Shell net pay defined contribution pension plan in the Netherlands with effect from January 1, 2015. The contribution rates for Ben van Beurden are the same as those applicable to other employees in the Netherlands in his age bracket.

### JESSICA UHL

Jessica Uhl is a member of the Shell US retirement benefit arrangements, which include the Shell Pension Plan, a defined benefit plan, and the Shell Provident Fund, a defined contribution plan. The contribution rates for Jessica Uhl are the same as those applicable to other US employees, however, unlike other US participants, Jessica Uhl's pensionable compensation does not include the annual bonus. She also has a deferred Dutch defined benefit pension plan, as a result of a prior Shell assignment on local Dutch terms and conditions.

### EXTERNAL APPOINTMENTS

The Board considers external appointments to be valuable in broadening Executive Directors' knowledge and experience. The number of outside directorships is generally limited to one. Exceptions to this are considered in the final year of employment. The Board must explicitly approve such appointments. Executive Directors are allowed to retain any cash or share-based compensation they receive from such external board directorships.

### STATEMENT OF VOTING AT 2018 AGM

The Company's 2018 AGM was held on May 22, 2018, in the Netherlands. The result of the poll in respect of Directors' remuneration was as follows:

#### Approval of Directors' Remuneration Report

Votes	Number	Percentage
For	3,886,764,832	74.78%
Against	1,311,138,457	25.22%
Total cast	5,197,903,289[A]	100.00%
Withheld [B]	41,918,978	

[A] Representing 62.31% of issued share capital.

[B] A vote "withheld" is not a vote under English law and is not counted in the calculation of the proportion of the votes "for" and "against" a resolution.

The result of the poll in respect of the Directors' Remuneration Policy approved at the 2017 AGM was as follows:

#### Approval of Directors' Remuneration Policy

Votes	Number	Percentage
For	4,064,279,529	92.34%
Against	337,361,835	7.66%
Total cast	4,401,641,364[A]	100.00%
Withheld [B]	37,303,341	

[A] Representing 53.53% of issued share capital.

[B] A vote "withheld" is not a vote under English law and is not counted in the calculation of the proportion of the votes "for" and "against" a resolution.

At our May 2018 Annual General Meeting, we received shareholder support of 74.78% for the Directors' Remuneration Report for the year ended December 31, 2017, which followed a vote of 92% support for our Remuneration Policy the prior year.

REMCO was deeply disappointed with this voting outcome and during 2018 engaged with shareholders to understand the reason for the outcome. Having analysed our voting results, we believe that more than 90% of our largest shareholders supported the Remuneration Report and this was reinforced in our engagement with them. No further specific action in relation to our largest shareholders in relation to this outcome was taken and we continue to engage with them on a regular basis.

A number of our smaller shareholders voted against the 2017 report and we met face to face with some of them in our recent shareholder engagement roadshow. It was clear that when we engage with shareholders, it helps to create a better understanding of our decisions and we are keen to reach deeper into our share register to engage with more shareholders on remuneration matters. For example, the REMCO Chair released a video, which can be found on the Shell investor relations website, in February 2019 to provide an explanation of some of the work done and decisions made by REMCO in the year. We will continue to work on ways to achieve this.

We also had a helpful and constructive meeting with the proxy agency that made an Against recommendation. We appreciate their desire for improved disclosures and the evolution of their views on our policy structure.

One of the most important points to emerge from these discussions was that we should have been clearer about why the tragic June 2017 incident in Pakistan involving a sub-contractor road tanker did not lead to a reduced bonus outcome. Further comments about this are in the REMCO Chair's statement.

### DIRECTORS' EMPLOYMENT ARRANGEMENTS AND LETTERS OF APPOINTMENT

Executive Directors are employed for an indefinite period. Non-executive Directors, including the Chair, have letters of appointment. Details of Executive Directors' employment arrangements can be found in the Directors' Remuneration Policy on page 145. Further details of Non-executive Directors' terms of appointment can be found in the "Directors' Report" on page 93 and the "Corporate governance" report on page 97.

### COMPENSATION OF DIRECTORS AND SENIOR MANAGEMENT

During the year ended December 31, 2018, Shell paid and/or accrued compensation totalling \$43 million (2017: \$46 million) to Directors and Senior Management for services in all capacities while serving as a Director or member of Senior Management, including \$3 million (2017: \$3 million) accrued to provide pension, retirement and similar benefits. The amounts stated are those recognised in Shell's income on an IFRS basis. See Note 27 to the "Consolidated Financial Statements". Personal loans or guarantees were not provided to Directors or Senior Management.

### CEO PAY RATIO

The UK Companies (Miscellaneous Reporting) Regulations 2018 introduces a requirement for certain UK listed companies to publish the ratio of CEO pay to UK staff pay. Although not required to be published until reporting on the 2019 financial year, REMCO believes in transparency on remuneration matters and has chosen to start disclosing from this year:

Year	Option [A]	25 <sup>th</sup> Percentile pay ratio	Median pay ratio	75 <sup>th</sup> pay ratio
2018	A	202:1	143:1	92:1

[A] The calculation methodology used is Option A as defined in the Regulations. Under this approach, the full-time equivalent total remuneration for all UK employees for the relevant financial year is determined. Using this data, companies will rank the data and identify employees whose remuneration places them at median, 25th and 75th percentile. Three pay ratios are then calculated against CEO 'single figure' total remuneration.

# Directors' Remuneration Policy

This section describes the Directors' Remuneration Policy (Policy) as published in the 2016 Directors' Remuneration Report which, following shareholder approval at the 2017 Annual General Meeting (AGM), came into effect from May 23, 2017, and will be effective until the 2020 AGM, unless a further policy is proposed by the Company and approved by shareholders in the meantime.

The Policy has evolved over time, to align with: Shell's strategy, market practice and shareholders' views. A consistent and competitive structure, which applies across the workforce, is also a core principle. This consistency allows for a culture of shared purpose and performance.

## EXECUTIVE DIRECTORS

### Executive Directors' remuneration policy table

Element	Purpose and link to strategy	Maximum opportunity	Operation and performance measurement
<b>Base salary and pensionable base salary</b>	Provides a fixed level of earnings to attract and retain Executive Directors.	We have retained a maximum of €2,000,000, for both base salary and pensionable base salary, in the context of current peer group base salary levels.	Base salary and pensionable base salary (where different) are reviewed annually with salary adjustments effective from January 1 each year.  In making salary determinations, the Remuneration Committee (REMCO) will consider: <ul style="list-style-type: none"><li>▪ the market positioning of the Executive Directors' compensation packages;</li><li>▪ comparison with Senior Management salaries;</li><li>▪ the employee context, and planned average salary increase for other employees across three major countries – the Netherlands, the UK and the USA;</li><li>▪ the experience, skills and performance of the Executive Director, or any change in the scope and responsibility of their role;</li><li>▪ general economic conditions, Shell's financial performance, and governance trends; and</li><li>▪ the impact of salary increases on pension benefits and other elements of the package.</li></ul> For Executive Directors employed outside their base country, euro base salaries are translated into their home currencies for pension plan purposes. Pensionable base salaries are maintained in line with euro base salaries taking into account exchange rate fluctuations and other factors as determined by REMCO.
<b>Benefits</b>	Provides benefits, in line with those applicable to the wider workforce, in order to attract and retain Executive Directors.	The maximum opportunity is the cost to the Company of providing the relevant benefit as specified in Shell's standard policies. These costs can vary.	Benefits that Executive Directors typically receive include car allowances and transport to and from home and office, risk benefits (for example ill-health, disability or death-in-service), as well as employer contributions to insurance plans (such as medical). Precise benefits will depend on the Executive Director's specific circumstances such as nationality, country of residence, length of service, and family status. Post-retirement benefits such as healthcare may be applicable under their country-specific policies. Shell's mobility policies may apply, such as for relocation and tax return preparation support, as may tax equalisation related to expatriate employment prior to Board appointment, or in other limited circumstances to offset double taxation. REMCO may adjust the range and scope of the benefits offered in the context of developments for other employees in relevant countries. Personal loans or guarantees are not provided to Executive Directors.  In relation to the maximum opportunity, and by way of example, maximum relocation and tax equalisation settlement benefits will be the grossed-up cost of meeting the specific Executive Director's costs incurred as a result of appointment and any associated relocation (in line with Shell's policy), and will depend on a variety of factors such as length of service, salary increase on appointment and the tax regime in place at the time.

The Executive Directors' remuneration structure is made up of a fixed element of basic pay and the majority of the package is tied to two variable elements: the annual bonus (50% delivered in shares) and the Long-term Incentive Plan (LTIP). Variable pay outcomes are conditional on the successful execution of the operating plan in the short term and financial outperformance over the longer term. Furthermore, the award of shares under the bonus and LTIP, along with significant shareholding requirements, is intended to ensure executives build up a sizeable shareholding stake in Royal Dutch Shell plc (the Company) and experience the same outcomes as shareholders.

## Directors' Remuneration Policy Continued

### Executive Directors' remuneration policy table (continued)

Element	Purpose and link to strategy	Maximum opportunity	Operation and performance measurement
<b>Annual bonus</b>	Rewards the delivery of short-term operational targets as derived from Shell's operating plan as well as individual contribution to Shell.  To reinforce alignment with shareholder interests, 50% is delivered in cash and 50% is delivered in shares. Shares are subject to a three-year holding period, which applies beyond an Executive Director's tenure.	Maximum bonus (as a percentage of base salary): <ul style="list-style-type: none"><li>▪ Chief Executive Officer (CEO): 250%</li><li>▪ Other Executive Directors: 240%</li></ul> Target levels (as a percentage of base salary): <ul style="list-style-type: none"><li>▪ CEO: 150%</li><li>▪ Other Executive Directors: 120%</li></ul>	<ul style="list-style-type: none"> <li>▪ The bonus is determined by reference to performance from January 1 to December 31 each year.</li> <li>▪ Annual bonus = base salary x target bonus % x scorecard result (0–2); adjusted for individual performance with a 0–1.2 multiplier.</li> <li>▪ Taking the Shell operating plan into consideration, REMCO sets stretching scorecard targets and weightings which support the delivery of the strategy. Measures are related to financial performance, operational excellence and sustainable development. Indicative weightings are 30%, 50% and 20% respectively. This balance ensures that the achievement of short-term financial performance does not undermine future shareholder value creation. Stretching individual targets are also set.</li> <li>▪ Scorecard targets will be disclosed in a subsequent Directors' Remuneration Report when they are no longer deemed to be commercially sensitive.</li> <li>▪ Individual performance is reflected by adjusting the bonus outcome. Upward adjustment is capped at 20% and subject to the overall maximum bonus cap. The CEO's maximum bonus is asymmetrically capped at 250%. There is no limit to downward adjustment.</li> <li>▪ There are no prescribed thresholds or minimum levels of performance that equate to a prescribed payment under the Policy and this structure can result in no bonus being awarded.</li> <li>▪ The annual bonus is subject to malus provisions before it is delivered and to clawback provisions thereafter.</li> <li>▪ REMCO retains the ability to adjust performance measure targets and weightings year by year within the overall target and maximum payouts approved in the Policy.</li> </ul>
<b>LTIP</b>	Rewards longer-term value creation linked to Shell's strategy. The measures predominantly focus on financial growth and increases in value compared with the other oil majors.  To reinforce alignment with shareholder interests, shares delivered from vested LTIP awards are subject to a three-year holding period, which applies beyond an Executive Director's tenure.	Awards may be made up to a value of 400% of base salary.  2017 Award levels: <ul style="list-style-type: none"><li>▪ CEO: 340%</li><li>▪ Other Executive Directors: 270%</li></ul> Awards may vest at up to 200% of the shares originally awarded, plus dividends.	<ul style="list-style-type: none"> <li>▪ Award levels are determined annually by REMCO and are set within the maximum approved in the Policy.</li> <li>▪ Awards may vest between 0% and 200% of the initial award level depending on Shell's performance on either an absolute basis, or on a relative basis against the other oil majors.</li> <li>▪ For 2017, performance is assessed over a three-year period based on absolute free cash flow (FCF), which is the sum of cash flow from operating activities and cash flow from investing activities (25%), and the following relative performance measures: total shareholder return (TSR) (25%), return on average capital employed (ROACE) growth (25%) and cash flow from operating activities growth (25%). Each measure can vest independently, but if the TSR measure does not result in vesting, then the total vesting level will be capped at 50% of the maximum payout.</li> <li>▪ Although it is possible for no LTIP shares to vest, on current measures and weightings, 5% of the maximum LTIP award would vest if there was a threshold vesting outcome in respect of FCF and no vesting on the other measures.</li> <li>▪ Additional shares are released representing the value of dividends payable on the vested shares, as if these had been owned from the award date.</li> <li>▪ Following payment of taxes, delivered shares from LTIP awards must be held for a further three years to align with Shell's longer-term time horizon and strategy.</li> <li>▪ The LTIP award is subject to malus provisions before it is delivered and to clawback provisions thereafter.</li> <li>▪ REMCO may adjust or change the LTIP measures, targets and weightings to ensure continued alignment with Shell's strategy.</li> </ul>

## Executive Directors' remuneration policy table (continued)

Element	Purpose and link to strategy	Maximum opportunity	Operation and performance measurement
<b>Pension</b>	Provides a competitive retirement provision in line with the individual's base country benefits policy, to attract and retain Executive Directors.	By reference to pensionable base salary, pension accrual and contribution rates and other pensionable elements, as determined by the rules of the base country pension plan of which the Executive Director is a member.	Executive Directors' retirement benefits are maintained in line with those of the wider workforce in their base country. Only base salary is pensionable, unless country plan regulations specify otherwise. The rules of the relevant plans detail the pension benefits which members can receive on retirement (including on ill-health), death or leaving service. REMCO retains the right to amend the form of any Executive Director's pension arrangements where appropriate, for example in response to changes in legislation to ensure the original objective of this element of remuneration is preserved.
<b>Shareholding</b>	Aligns interests of Executive Directors with those of shareholders by creating a connection between individual wealth and Shell's long-term performance.	Shareholding (% of base salary): <ul style="list-style-type: none"> <li>▪ CEO: 700%</li> <li>▪ Other Executive Directors: 400%</li> </ul>	Executive Directors are expected to build up their shareholding to the required level over a period of five years from appointment and, once reached, to maintain this level for the full period of their appointment. The intention is for the shareholding guideline to be reached through retention of vested shares from share plans. REMCO will monitor individual progress and retains the ability to adjust the guideline in special circumstances on an individual basis.

## NOTES TO THE EXECUTIVE DIRECTORS' REMUNERATION POLICY TABLE

### Benefits

Benefits for Executive Directors deemed taxable in the UK are included as taxable benefits in the single total figure of remuneration table. These elements may include transport to and from home and office, the provision of home security, and occasional business-required spouse travel, which are generally considered legitimate business expenses rather than components of remuneration.

### Annual bonus

For the 2017 performance year, the scorecard framework will consist of cash flow from operating activities (30% weight), operational excellence (50% weight) and sustainable development (20% weight). REMCO believes it is important for annual variable pay to remain balanced, with operational and environmental components, complementing the LTIP's focus on longer-term financial outcomes. The same annual bonus scorecard approach applies to Senior Management and other senior executives, supporting consistency of remuneration and alignment of objectives.

For future years, the specific measures and weightings for the annual bonus scorecard will be reviewed annually by REMCO and adjusted accordingly to evolve with Shell's strategy and circumstances. The annual review will also consider the scorecard target and outcome history over a decade to ensure that the targets set remain stretching but realistic. REMCO retains the right to exercise its judgement to adjust the mathematical bonus scorecard outcome to ensure that the bonus scorecard outcome for Executive Directors reflects other aspects of Shell's performance which REMCO deems appropriate for the reported year. REMCO is aware that the simple application of arithmetic performance targets may lead to anomalies between business performance and shareholder experience and therefore careful consideration is given to formulaic outcomes. REMCO has a track record of using its discretion to make downward adjustments where appropriate.

## 2017 annual bonus scorecard measures and weightings

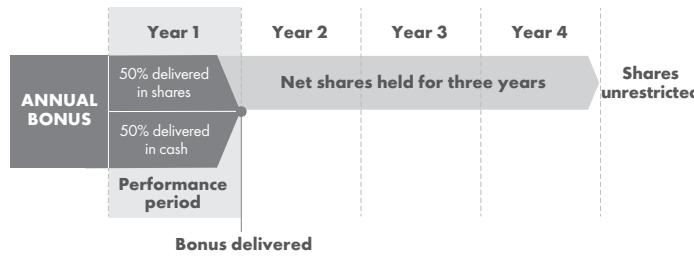
PERFORMANCE MEASURE AND WEIGHTING	LINK TO OPERATING PLAN
<b>Cash flow from operating activities (30%)</b>	This reflects our business performance.
<b>Operational excellence (50%)</b>	Project delivery: Indicator of our ability to deliver projects, on time, and on budget.  Operations: Maximising oil and gas production, LNG liquefaction volumes, and the availability of refineries and chemical plants are indicators of the full and effective use of our resources; which in turn generate cash flow.
<b>Sustainable development (20%)</b>	Safety and environmental performance are both core to how we operate.  Safety: Is implicit in all our activities. A safe work environment has been, and will always be, an important indicator of Shell's commitment to its employees and contractor staff.  Environmental performance: We are managing Shell's carbon intensity as part of the long-term transition to a lower carbon energy system. Therefore greenhouse gas measures are now included.

REMCO strengthens the Executive Directors' individual accountability by increasing or decreasing their annual bonuses to take account of how well they have delivered against their individual performance targets. Shell operates this approach for most of its employees. These individual targets typically relate to qualitative differentiators not already covered by the scorecard. Examples for the Executive Directors have included management of transformative portfolio changes, portfolio development, and organisational and financial leadership. This individual performance element preserves consistency with the wider workforce and reinforces and drives a company-wide culture of performance and behaviour.

## Directors' Remuneration Policy Continued

At the end of the one-year performance period, 50% of the annual bonus is delivered in cash and 50% is delivered in shares. Shares are subject to a three-year holding period, which remains in force beyond an Executive Director's tenure.

### Bonus time horizon



### Long-term Incentive Plan

The LTIP rewards longer-term performance linked to Shell's strategy, which includes cash generation and capital discipline, as well as value created for shareholders.

The LTIP measures are predominantly based on relative outperformance compared with the other oil majors, in line with our strategic intent to be a leader in the oil and gas industry. For 2017, the measures will consist of absolute FCF and relative growth compared with our peers based on the following: TSR, ROACE and cash flow from operating activities. REMCO will regularly review the measures, weightings and comparator group, and retains the right to adjust these to ensure that the LTIP continues to serve its intended purpose and level of challenge.

FCF performance is measured by aggregating annual absolute FCF performance over the three-year performance period and then comparing the outcome to the aggregate of our plan FCF targets over three years. The outstanding (maximum), target and threshold (minimum) levels are declared at the end of the performance period and will be the aggregate respective annual outstanding, target and threshold levels for each year of the performance period. A straight-line vesting schedule will apply for performance between threshold and outstanding. The target, along with the ranges for threshold and outstanding performance, is set by reference to our operating plan and is in line with our cash flow priorities, namely: to service and reduce debt, pay dividends, buy back shares and make future capital investments.

For relative measures, we measure and rank growth based on the data points at the end of the performance period compared with those at the beginning of the period, using publicly reported data. When comparing performance against the other oil majors, the relative performance ranking is as indicated in the table below.

### 2017 LTIP measures and vesting schedule

PERFORMANCE MEASURE AND WEIGHTING	LINK TO STRATEGY	VESTING SCHEDULE (% OF INITIAL LTIP AWARD)
<b>Free cash flow (25%)</b>	Recognition of the importance of generating cash after net capital expenditure to service and reduce debt, pay dividends, buy back shares and make future capital investments.	Maximum – 200% Target – 100% Threshold – 40% Below threshold – 0%
<b>TSR (25%)</b>	Assessment of actual wealth created for shareholders.	1st – 200% 2nd – 150% 3rd – 80% 4th or 5th – nil
<b>ROACE growth (25%)</b>	Indicator of capital discipline.	
<b>Cash flow from operating activities growth (25%)</b>	Source of capital expenditure commitments which support sustainable growth based on portfolio and cost management.	

### TSR underpin

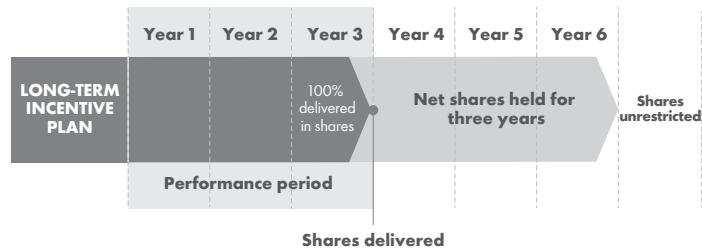
If the TSR ranking is fourth or fifth, the level of the award that can vest on the basis of the three other measures will be capped at 50% of the maximum payout for the LTIP.

### Performance outcomes

REMCO retains discretion to adjust the mathematical outcome if it believes that this is distorted by circumstances which are unrelated to performance, for example, reporting changes, ranking clustering, or corporate events in the comparator group. Upward adjustment would only be considered after consultation with major shareholders. An explanation of any such adjustment would be set out in the relevant Directors' Remuneration Report.

LTIP performance is assessed over a three-year period. Vested shares from the LTIP are subject to a further three-year holding period post vesting, which remains in force beyond an Executive Director's tenure. This time horizon has been extended and is deemed to be suitable for incentive purposes, but is recognised as short relative to some of Shell's operations. However, REMCO believes that it provides for broad alignment with shareholder interests when coupled with significant shareholding requirements

### LTIP time horizon



### Treatment of outstanding awards

Awards granted prior to the approval and implementation of this Policy and/or prior to an individual becoming an Executive Director will continue to vest and be delivered in accordance with the terms of the original award even if this is not consistent with the terms of this Policy.

As at March 7, 2017, this applies to Executive Directors Ben van Beurden and Simon Henry who each have outstanding awards under the LTIP and DBP. Jessica Uhl, who is appointed an Executive Director with effect from March 9, 2017, has outstanding awards under the LTIP.

### Shareholding

REMCO believes significant shareholding by Executive Directors is an important way of ensuring that shareholders and Executive Directors share the same priorities. Shareholding is one of Shell's core remuneration principles as it creates a balanced connection between individual wealth and Shell's long-term performance. This will support effective governance and an ownership mindset. Significant shareholding requirements reflect the performance timescales of Shell and are aligned with absolute shareholder return.

The CEO is expected to build up a shareholding of seven times their base salary over five years from appointment. Other Executive Directors are expected to build up a shareholding of four times their base salary over the same period. In the event of an increase to the guideline multiple of salary, for every additional multiple of salary required, the director will have one extra year to reach the increased guideline, subject to a maximum of five years from the date of the change.

The holding periods for LTIP vested shares and shares delivered as part of the annual bonus continue to apply after Executive Directors leave employment. This is to ensure departing executives continue to have their interests aligned with those of shareholders.

### DIFFERENCES FOR EXECUTIVE DIRECTORS FROM OTHER EMPLOYEES

The remuneration structure and approach to setting remuneration levels are consistent across Shell, with consideration given to location, seniority and responsibilities. However, a higher proportion of total remuneration is tied to variable pay for Executive Directors and members of Senior Management.

The salary for each Executive Director is determined based on the indicators in the "Executive Directors' remuneration policy table", which reflect the international nature of the Executive Directors' labour market. The salary for other employees is normally set on a country basis.

Executive Directors are eligible to receive the standard benefits and allowances provided to other staff. The provisions that are not generally available for other employees are described in "Benefits".

The methodology used for determining the annual bonus for Executive Directors is broadly consistent with the approach for Shell employees generally. However, the individual performance factor for Executive Directors is capped at 1.2 and the scorecard used for the majority of Shell staff may differ in the make-up and weighting of the metrics used. Like Executive Directors, members of Senior Management receive 50% of their annual bonus in shares.

Executive Directors are not eligible to receive new awards under employee share plans other than the LTIP, although awards previously granted will continue to vest in accordance with the terms of the original award.

Selected employees participate in the Performance Share Plan (PSP). The operation of the PSP is similar to the LTIP, but currently differs, for example, in some performance measures and their relative weightings. As at March 2017, around 55,000 employees participate in one or more of Shell's global share plans and/or incentive plans, further supporting alignment with shareholder interests.

Executive Directors' retirement benefits are maintained in line with those of the wider workforce in their base country. There are no special pension arrangements exclusive to Executive Directors.

### ILLUSTRATION OF POTENTIAL REMUNERATION OUTCOMES

The charts below represent estimates under three performance scenarios ("Minimum", "On-target", and "Maximum") of the potential remuneration outcomes for each Executive Director resulting from the application of 2017 base salaries to awards expected to be made in 2017 in accordance with the Policy.

#### Performance scenarios

SCENARIO	OUTCOME	CEO	CFO
<b>Minimum</b>	Fixed remuneration includes 2017 base salaries, 2016 benefits (as reported in the single total figure of remuneration table), with an estimate for the incoming CFO, and a projection of 2017 pension for the CEO and incoming CFO. There is no annual bonus or vesting of the LTIP award.		
<b>On-target</b>	Reflects fixed remuneration, plus on-target 2017 annual bonus and vesting of LTIP award, as percentages of base salary, as follows:		
	<b>Annual incentive</b>	150%	120%
	<b>Long-term incentive</b>	340%	270%
<b>Maximum</b>	Reflects fixed remuneration, plus maximum pay-out of 2017 annual bonus and vesting of 200% of original LTIP award, as percentages of base salary, as follows:		
	<b>Annual incentive</b>	250%	240%
	<b>Long-term incentive</b>	680%	540%

The majority of Executive Directors' remuneration is delivered through variable pay elements, which are conditional on the achievement of stretching targets.

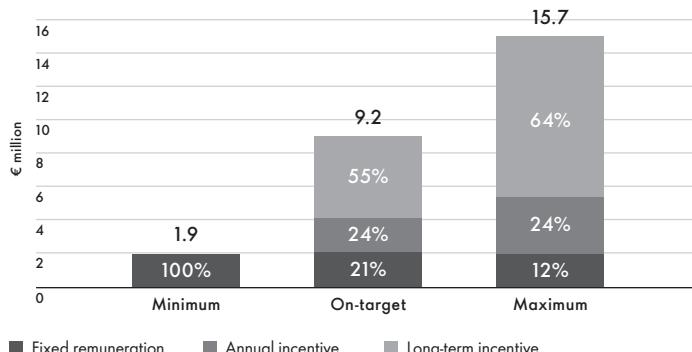
The scenario charts are based on future Policy award levels and are combined with projected single total figures of remuneration. The pay scenarios are forward-looking and only serve to illustrate the future Policy.

## Directors' Remuneration Policy Continued

For simplicity, the scenarios assume no share price movement and exclude dividend accrual, for the portion of the bonus paid in shares and the LTIP, although dividend accrual during the performance and holding period

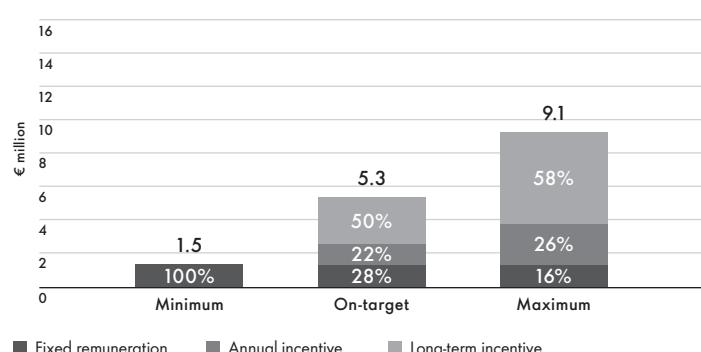
applies. The scenarios are based on the current CEO (Ben van Beurden) and incoming CFO (Jessica Uhl) roles.

### CEO pay scenarios



■ Fixed remuneration ■ Annual incentive ■ Long-term incentive

### CFO pay scenarios



■ Fixed remuneration ■ Annual incentive ■ Long-term incentive

## NON-EXECUTIVE DIRECTORS

### Non-executive Directors' remuneration policy table

Fee structure	Approach to setting fees	Other remuneration
Non-executive Directors (NEDs) receive a fixed annual fee for their directorship. The size of the fee will differ based on the position on the Board: Chair of the Board fee or standard Non-executive Director fee.	The Chair's fee is determined by REMCO. The Board determines the fees payable to NEDs. The maximum aggregate annual fees will be within the limit specified by the Articles of Association and in accordance with the NEDs' responsibilities and time commitments.	Business expenses incurred in respect of the performance of their duties as a NED will be paid or reimbursed by Shell. Such expenses could include transport between home and office and occasional business-required spouse travel. Where required, the Chair is offered Shell-provided accommodation in The Hague. REMCO has the discretion to offer other benefits to the Chair as appropriate to their circumstances. Where business expenses or benefits create a personal tax liability to the director, Shell may cover the associated tax.
Additional annual fee(s) are payable to any director who serves as Senior Independent Director, a Board committee chair, or a Board committee member.	The Board reviews NED fees periodically to ensure that they are aligned with those of other major listed companies.	The Chair and the other NEDs cannot receive awards under any incentive or performance-based remuneration plans, and personal loans or guarantees are not granted to them.
A NED receives either a chair or member fee for each committee. This means that a chair of a committee does not receive both fees.		NEDs do not accrue any retirement benefits as a result of their non-executive directorships with Shell.
NEDs receive an additional fee for any Board meeting involving intercontinental travel – except for one meeting a year held in a location other than The Hague.		NEDs are encouraged to hold shares with a value equivalent to 100% of their fixed annual fee and maintain that holding during their tenure.

### MALUS AND CLAWBACK

Variable pay awards may be made subject to adjustment events. At the discretion of REMCO, such an award may be adjusted before delivery (malus) or reclaimed after delivery (clawback) if an adjustment event occurs. Adjustment events will be specified in award documentation and it is intended that they will, for example, relate to restatement of financial results due to: non-compliance with a financial reporting requirement; or misconduct by an Executive Director or misconduct through their direction or non-direction. REMCO retains the right to alter the list of adjustment events in respect of future awards.

In addition, REMCO will retain discretion in assuring itself that there is satisfactory underlying performance before releasing any variable pay to Executive Directors and may withhold all or some of the bonus or shares awarded if it considers that the underlying performance (financial, environmental, safety or other) of Shell is inadequate.

## **RECRUITMENT**

### **EXECUTIVE DIRECTORS**

REMCO determines the remuneration package for new Executive Director appointments. These appointments may involve external or internal recruitment or reflect a change in role of a current Executive Director.

When determining remuneration packages for new Executive Directors, REMCO will seek a balanced outcome which allows Shell to:

- attract and motivate candidates of the right quality;

- take into account the individual's current remuneration package and other contractual entitlements;
- seek a competitive pay position relative to our comparator group, without overpaying;
- encourage relocation if required; and
- honour entitlements (for example, variable remuneration) of internal candidates before their promotion to the Board.
- REMCO will follow the approach set out in the table below when determining the remuneration package for a new Executive Director.

### **Remuneration package**

Component	Approach	Maximum
<b>Ongoing remuneration</b>	The salary, benefits, annual bonus, long-term incentives and pension benefits will be positioned and delivered within the framework of the Executive Directors' remuneration policy.	As stated in the "Executive Directors' remuneration policy table".
<b>Compensation for the forfeiture of any awards under variable remuneration arrangements</b>	To facilitate external recruitment, one-off compensation in consideration for forfeited awards under variable remuneration arrangements entered into with a previous employer may be required. REMCO will use its judgement to determine the appropriate level of compensation by matching the value of any lost awards under variable remuneration arrangements with the candidate's previous employer. This compensation may take the form of a one-off cash payment or an additional award under the LTIP. The compensation can alternatively be based on a newly created long-term incentive plan arrangement where the only participant is the new director.	An amount equal to the value of the forfeited variable remuneration awards, as assessed by REMCO. Consideration will be given to appropriate performance conditions, performance periods and clawback arrangements.
<b>Replacement of forfeited entitlements other than any awards under variable remuneration arrangements</b>	There may also be a need to compensate a new Executive Director in respect of forfeited entitlements other than any awards under variable remuneration arrangements. This could include, for example, pension or contractual entitlements, or other benefits. On recruitment, these entitlements may be replicated within the Executive Directors' remuneration policy or valued by REMCO and compensated in cash.	An amount equal to the value of the forfeited entitlements, as assessed by REMCO.
	In cases of internal promotion to the Board, any commitments made which cannot be effectively replaced within the Executive Directors' remuneration policy may, at REMCO's discretion, continue to be honoured.	
<b>Exceptional recruitment incentive</b>	Apart from the ongoing annual remuneration package and any compensation in respect of the replacement of forfeited entitlements, there may be circumstances in which REMCO needs to offer a one-off recruitment incentive in the form of cash or shares to ensure the right external candidate is attracted. REMCO recognises the importance of internal succession planning but it must also have the ability to compete for talent with other global companies. The necessity and level of this incentive will depend on the individual's circumstances.	One times the LTIP award level, subject to the limits set out in the "Executive Directors' remuneration policy table".

### **NON-EXECUTIVE DIRECTORS**

REMCO's approach to setting the remuneration package for NEDs is to offer fee levels and specific benefits (where appropriate) in line with the "Non-executive Directors' remuneration policy table" and subject to the Articles of Association. NEDs are not offered variable remuneration or retention awards.

When determining the benefits for a new Chair, the individual circumstances of the future Chair will be taken into account.

### **DIRECTORS' EMPLOYMENT ARRANGEMENTS AND LETTERS OF APPOINTMENT**

Executive Directors are employed for an indefinite period. Executive Directors with the Netherlands as their base country will be employed on the basis of a contract of employment governed by Dutch employment law. For Executive Directors with a base country other than the Netherlands, REMCO will determine their employment arrangements based on a number of considerations, including Dutch immigration requirements and base country retirement benefits. NEDs, including the Chair, have letters of appointment. Executive Directors' employment arrangements and NEDs' letters of appointment are available for inspection at the AGM or on request. For further details on appointment and re-appointment of Directors, see the "Directors' Report" on page 93.

## Directors' Remuneration Policy Continued

### END OF EMPLOYMENT

#### EXECUTIVE DIRECTORS

##### Notice period

Employment arrangements of Executive Directors can generally end by either the employee or the employer providing one month's notice, or the applicable statutory notice period. For example, under Dutch law, the statutory notice period for the employer will vary in line with the length of service, with the maximum being four months' notice. Under Dutch law, termination payments are not linked to the contract's notice period.

The Netherlands statutory end-of-employment compensation  
With effect from July 1, 2015, new employment legislation in the Netherlands introduced statutory end-of-employment compensation. Under this legislation, every termination (other than following retirement or for cause) of a Dutch employment contract that has continued for a minimum of two years will give rise to an obligation to pay the departing employee transition compensation ("transitievergoeding"). The statutory compensation is capped at one times the annual salary, which is deemed to include

variable pay such as the annual bonus. Executive Directors are expected not to claim transition compensation or any other applicable statutory compensation over and above the agreed compensation for loss of office as set out in the "End of employment" table below.

##### Outstanding entitlements

In cases of resignation or dismissal for cause, fixed remuneration (base salary, benefits, and employer pension contributions) will cease on the last day of employment; variable remuneration elements will generally lapse and the Executive Director is not eligible for compensation for loss of office.

The information below generally applies to termination of employment by Shell giving notice, by mutual agreement, or in situations where the employment terminates because of retirement with Shell consent at a date other than the normal retirement date, redundancy or in other similar circumstances at REMCO's discretion.

#### End of employment

Provision	Policy
Compensation for loss of office	<p>For Executive Directors appointed prior to 2011, REMCO may offer a termination payment of up to one times annual pay (base salary plus target bonus).</p> <p>For Executive Directors appointed between January 1, 2011 and December 31, 2016, employment contracts include a cap on termination payments of one times annual pay (base salary plus target bonus). Delivery of compensation is mitigated by a contractual obligation for the Executive Director to seek alternative employment and the Company's ability to implement phased payment terms.</p> <p>For Executive Directors appointed on or after January 1, 2017, REMCO may offer a termination payment of up to one times base salary (target bonus will not be included). However, REMCO may be obligated to pay statutory compensation over and above the compensation for loss of office to a departing Executive Director who asserts a statutory claim thereto. Delivery of compensation is mitigated by a contractual obligation for the Executive Director to seek alternative employment and the Company's ability to implement phased payment terms.</p> <p>The reimbursement of standard end-of-employment benefits such as repatriation costs and outplacement support may also be included, as deemed reasonable by REMCO.</p> <p>REMCO may adjust the termination payment for any situation where a full payment is inappropriate, taking into consideration applicable law, corporate governance provisions and the best interests of the Company and shareholders as a whole.</p>
Annual bonus	<p>Any annual bonus in the year of departure is prorated based on service. Depending on the timing of the departure, REMCO may consider the latest scorecard position or defer payment until the full-year scorecard result is known.</p> <p>DBP shares and bonus delivered in shares represent the bonus which a participant has already earned and carry no further performance conditions; therefore, these shares will be unrestricted at the conclusion of the normal deferral or holding period respectively and no proration will apply.</p>
LTIP	<p>Outstanding awards are prorated on a monthly basis, by reference to the Executive Director's service within the performance period. They will generally survive the end of employment and will remain subject to the same vesting performance conditions, and malus and clawback provisions, as if the Executive Director had remained in employment. The three-year holding period will also remain in force for any awards made on or after January 1, 2017. If the participant dies before the end of the performance period, the award will vest at the target level on the date of death. In case of death after the end of the performance period, the award will vest as described in this Policy.</p>

## **NON-EXECUTIVE DIRECTORS**

No payments for loss of office will be made to NEDs.

## **CONSIDERATION OF OVERALL PAY AND EMPLOYMENT CONDITIONS**

When setting the Policy, no specific employee groups were consulted. However, Shell seeks to promote and maintain good relations with employee representative bodies as part of its employee engagement strategy, and consults on matters affecting employees and business performance as required.

When determining Executive Directors' remuneration structure and outcomes, REMCO reviews a set of information, including relevant reference points and trends, which includes internal data on employee remuneration (for example, employee relations matters in respect of remuneration and average salary increases applying in the Netherlands, UK and the USA). During the Policy review, pay and employment conditions of the wider Shell employee population were taken into account by adhering to the same performance, rewards and benefits philosophy for the Executive Directors, as well as overall benchmarking principles. Furthermore, any potential differences from other employees (see "Differences for Executive Directors from other employees") were taken into account when providing REMCO with advice in the formation of this Policy.

Dialogue between management and staff is important, with the annual Shell People Survey being one of the principal means of gathering employee views on a range of matters. The Shell People Survey includes questions inviting employees' views on their pay and benefit arrangements. The Company also encourages share ownership among employees, and many are shareholders who are able to participate in the vote on the Policy at the AGM.

REMCO is kept informed by the CEO, the Chief Human Resources & Corporate Officer and the Executive Vice President Remuneration, Benefits & Services on the bonus scorecard and any relevant remuneration matters affecting Senior Management and other senior executives, extending to multiple levels below the Board.

## **CONSIDERATION OF SHAREHOLDER VIEWS**

REMCO engages with major shareholders on a regular basis throughout the year and this allows it to hear views on Shell's remuneration approach and test proposals when developing or evolving the Policy. Recent examples of REMCO responding to shareholder views include introducing greenhouse gas management to variable pay and setting FCF as an absolute measure in the LTIP performance conditions.

REMCO will review the Policy regularly to ensure it continues to reinforce Shell's long-term strategy and remains closely aligned with shareholders' interests.

## **ADDITIONAL POLICY STATEMENT**

REMCO reserves the right to make payments outside the Policy in limited exceptional circumstances, such as for regulatory, tax or administrative purposes or to take account of a change in legislation or exchange controls, and only where REMCO considers such payments are necessary to give effect to the intent of the Policy.

Signed on behalf of the Board

/s/ Linda M. Szymanski

**Linda M. Szymanski**

Company Secretary

March 13, 2019

# **Financial Statements and Supplements**

## **Independent Auditor's Report to the members of Royal Dutch Shell plc**

### **REPORT ON THE FINANCIAL STATEMENTS**

#### **1. OUR OPINIONS AND CONCLUSIONS ARISING FROM OUR AUDIT**

##### **1.1 Our opinion on the financial statements**

In our opinion, the financial statements of Royal Dutch Shell plc (the Parent Company) and its subsidiaries (collectively, Shell):

- give a true and fair view of the state of Shell's and of the Parent Company's affairs as at December 31, 2018, and of Shell's and the Parent Company's income for the year then ended;
- have been properly prepared both in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and IFRS as issued by the International Accounting Standards Board (IASB); and
- have been prepared in accordance with the requirements of the Companies Act 2006, and, as regards Shell's financial statements, Article 4 of the IAS Regulation.

##### **1.2 Our opinion on other matters prescribed by the Companies Act 2006**

In our opinion:

- the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and
- based on the work undertaken in the course of our audit:
  - the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
  - the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

##### **1.3 Matters on which we are required to report by exception**

Our confirmations that we have nothing to report by exception, in relation to those matters where we are required so to report, are set out in sections 8 and 9 below.

##### **1.4 What we have audited**

We have audited Royal Dutch Shell plc's financial statements for the year ended December 31, 2018, which are included in the Annual Report and Form 20-F (the Annual Report) and comprise:

<b>Shell</b>	<b>Parent Company</b>
Consolidated Balance Sheet as at December 31, 2018	Balance Sheet as at December 31, 2018
Consolidated Statement of Income for the year then ended	Statement of Income for the year then ended
Consolidated Statement of Comprehensive Income for the year then ended	Statement of Comprehensive Income for the year then ended
Consolidated Statement of Changes in Equity for the year then ended	Statement of Changes in Equity for the year then ended
Consolidated Statement of Cash Flows for the year then ended	Statement of Cash Flows for the year then ended
Related Notes 1 to 28 to the Consolidated Financial Statements, including a summary of significant accounting policies	Related Notes 1 to 14 to the Parent Company Financial Statements

The financial reporting framework that has been applied in the preparation of the financial statements is applicable law and both IFRS as adopted by the EU and IFRS as issued by the IASB.

## **2. BASIS FOR OUR OPINION**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISA (UK)) and applicable law. Our responsibilities under those standards are further described in the 'Auditor's responsibilities for the audit of the financial statements' section of our report below. We are independent of Shell and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained during the planning, execution and conclusion of our audit is sufficient and appropriate to provide a suitable basis for our opinion.

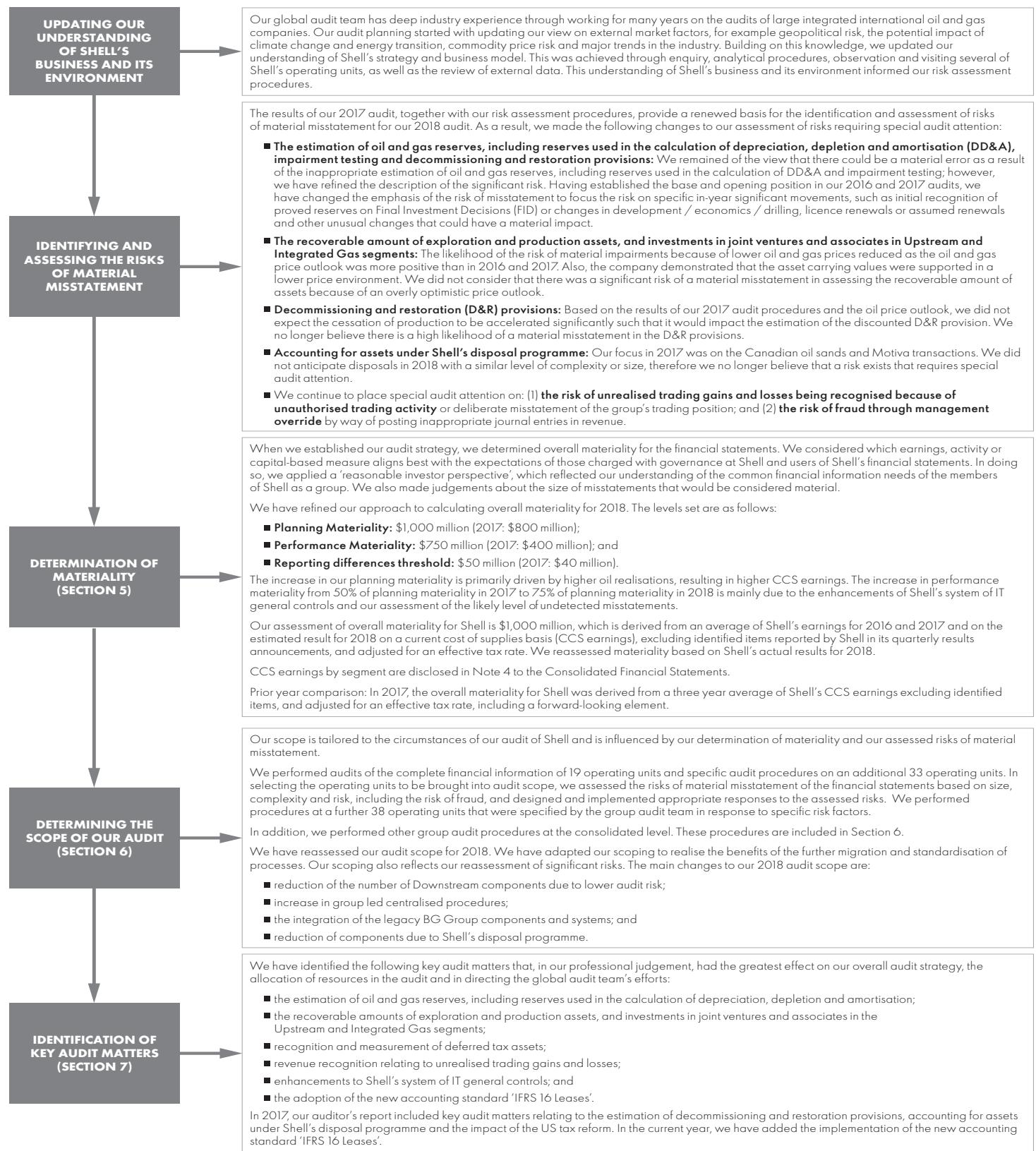
## **3. OUR CONCLUSIONS RELATING TO PRINCIPAL RISKS, GOING CONCERN AND VIABILITY STATEMENT**

We have nothing to report in respect of the following information in the Annual Report, in relation to which ISA (UK) requires us to report to you whether we have anything material to add or draw attention to:

- the disclosures in the Annual Report set out on pages 15 to 20 that describe the principal risks and cross refer to where there are explanations of how the risks are being managed or mitigated;
- the Directors' confirmation set out on page 104 in the Annual Report that they have carried out a robust assessment of the principal risks facing the entity, including those that would threaten its business model, future performance, solvency or liquidity;
- the Directors' statement set out on pages 91 to 94 in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the entity's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- whether the Directors' statement in relation to going concern required under the Listing Rules in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit; or
- the Directors' explanation set out on pages 91 to 94 in the Annual Report as to how they have assessed the prospects of the entity, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the entity will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

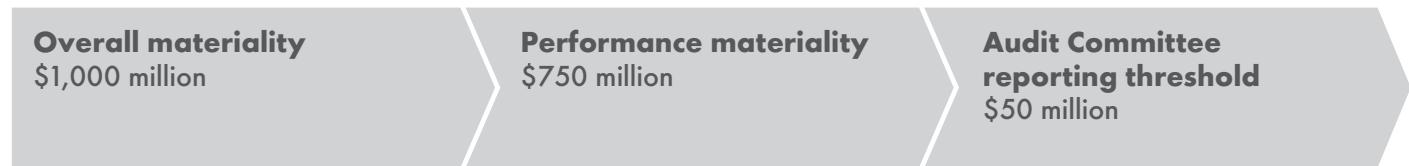
# Independent Auditor's Report to the members of Royal Dutch Shell plc Continued

## 4. OVERVIEW OF OUR AUDIT APPROACH



## 5. OUR APPLICATION OF MATERIALITY

The scope of our work is influenced by our view of materiality. As we develop our audit strategy, we determine materiality at the overall level and at the individual account level (referred to as our 'performance materiality' (see below)).



### Overall materiality

#### What we mean

We apply the concept of materiality both in planning and performing our audit, as well as in evaluating the effect of identified misstatements (including omissions) on our audit and in forming our audit opinion. For the purposes of determining whether or not Shell's financial statements are free from material misstatement (whether due to fraud or error), we define materiality as the magnitude of misstatements that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of these financial statements. We are required to establish a materiality level for the financial statements as a whole that is appropriate in the light of Shell's particular circumstances.

Our overall materiality provides a basis for identifying and assessing the risk of material misstatement and determining the nature and extent of audit procedures. Our evaluation of materiality requires professional judgement and necessarily takes into account qualitative as well as quantitative considerations. It also considers our assessment of the expectations of those charged with governance at Shell and users of Shell's financial statements. As required by auditing standards, we reassess materiality throughout the duration of the audit.

#### Level set

#### Group materiality

We set our preliminary overall materiality for Shell's Consolidated Financial Statements at \$1,000 million (2017: \$800 million). We kept this under review throughout the year and reassessed the appropriateness of our original assessment in the light of Shell's results and external market conditions. Based on this review, we did not find it necessary to revise our level of overall materiality.

#### Parent Company materiality

We determined materiality for the Parent Company to be \$2.6 billion (2017: \$2.5 billion), which is 1% (2017: 1%) of equity. Equity is an appropriate basis to determine materiality for an investment holding company and 1% is a typical percentage of equity to use to determine materiality. Any balances in the parent company financial statements that were relevant to our audit of the consolidated group were audited using an allocation of group performance materiality.

#### Our basis for determining materiality for 2018

Our assessment of overall materiality is \$1,000 million. This is derived from an average of Shell's earnings for 2016 and 2017 and on the estimated result for 2018 on a current cost of supplies basis (CCS earnings), excluding identified items reported by Shell in its quarterly results announcements, and adjusted for an effective tax rate. The \$1,000 million was determined by applying a percentage to the calculated average CCS earnings. When using an earnings-related measure to determine overall materiality, the norm is to apply a benchmark percentage of 5% of the pre-tax measure. In setting overall materiality, we applied a more prudent rate that was below the 5% benchmark. Our overall materiality is less than 3% of the 2018 income before taxation.

In determining materiality, auditing standards require us to use benchmark measures, such as pre-tax income, gross profit and total revenue. Nevertheless, we have to exercise considerable judgement, including which earnings, activity or capital based measure aligns best with the expectations of users of Shell's financial statements and the Audit Committee. In determining the most appropriate benchmark on which to base our materiality assessment, we have applied a 'reasonable investor perspective'. This reflects our understanding of the common financial information needs of Shell's investors as a group, which we believe is CCS earnings, excluding identified items. Shell's quarterly results announcements feature CCS earnings excluding identified items as the primary measure for earnings.

CCS earnings excluding identified items removes both the effects of changes in oil price on inventory carrying amounts and items disclosed as identified items that can significantly distort Shell's results in any one particular year. In our view, the use of CCS earnings excluding identified items allows investors to understand how management has performed despite the commodity price environment, as opposed to because of it. Furthermore, analyst forecasts predominantly feature CCS earnings, excluding identified items, as the basis for earnings. The analyst consensus data supports our judgement that CCS earnings, excluding identified items, is the key indicator of performance from a reasonable investor perspective.

The identified items, reported by Shell in its quarterly results announcements, were: net divestment gains (\$3.3 billion), net impairments (\$1.0 billion charge), fair value accounting of commodity derivatives and certain gas contracts (\$1.1 billion gain), redundancy and restructuring (\$0.2 billion charge), and the aggregate of other individually small items (net \$0.1 billion charge).

The identified items excluded in 2017 were: net divestment gains (\$1.6 billion), impairments (\$3.0 billion charge), fair value accounting of commodity derivatives and certain gas contracts (\$0.3 billion loss), redundancy and restructuring (\$0.4 billion charge), impact of exchange rate movements on tax balances (\$0.6 billion gain), impact arising from the US tax reform legislation (\$2.0 billion charge) and the aggregate of other individually small items (net \$0.2 billion charge). On the basis of our analysis of these factors, we concluded that we should focus on Shell's CCS earnings, excluding identified items reported by Shell in its quarterly results announcements, and adjusted for an effective tax rate. In 2017, we included a forward-looking element in the calculation of average earnings due to the low oil price environment. In the current year, however, we have not used a forward-looking view, as the oil price environment is more stable.

# Independent Auditor's Report to the members of Royal Dutch Shell plc Continued

## Performance materiality

<b>What we mean</b>	Having established overall materiality, we determined 'performance materiality', which represents our tolerance for misstatement in an individual account. It is calculated as a percentage of overall materiality in order to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality of \$1,000 million for Shell's financial statements as a whole.  Once we determined our audit scope, we then assigned performance materiality to our various in-scope operating units. Our in-scope operating unit audit teams used this assigned performance materiality in performing their group audit procedures. The performance materiality allocation is dependent on the size of the operating unit, measured by its contribution of earnings to Shell, or other appropriate metric, and the risk associated with the operating unit.
<b>Level set</b>	On the basis of our risk assessment, our judgement was that performance materiality should be 75% (2017: 50%) of our overall materiality, namely \$750 million (2017: \$400 million). In assessing the appropriate level, we consider the nature, the number and impact of the audit differences identified in 2017 as well as the overall control environment. The increase in performance materiality is mainly due to the enhancements of Shell's system of IT general controls and our assessment of the likely level of undetected misstatements.  In 2018, the range of performance materiality allocated to operating units was \$113 million to \$375 million (2017: \$40 million to \$260 million). This is set out in more detail in section 6 below.

## Audit difference reporting threshold

<b>What we mean</b>	This is the amount below which identified misstatements are considered to be clearly trivial.  The threshold is the level above which we collate and report audit differences to the Audit Committee. We also report differences below that threshold that, in our view, warrant reporting on qualitative grounds. We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in the light of other relevant qualitative considerations in forming our opinion.
<b>Level set</b>	We agreed with the Audit Committee that we would report to the Committee all audit differences more than \$50 million (2017: \$40 million), as well as differences below that threshold that, in our view, warrant reporting on qualitative grounds.

## 6. OUR SCOPE OF THE AUDIT OF SHELL'S FINANCIAL STATEMENTS

<b>What we mean</b>	We are required to establish an overall audit strategy that sets the scope, timing and direction of our audit, and that guides the development of our audit plan. Audit scope comprises the physical locations, operating units, activities and processes to be audited that, in aggregate, are expected to provide sufficient coverage of the financial statements for us to express an audit opinion.
<b>Criteria for determining our audit scope</b>	Our assessment of audit risk and our evaluation of materiality determined our audit scope for each operating unit within Shell which, when taken together, enabled us to form an opinion on the financial statements under ISA (UK). Our audit effort was focused towards higher risk areas, such as management judgements and on operating units that are considered significant based upon size, complexity or risk.  The factors that we considered when assessing the scope of the Shell audit, and the level of work to be performed at the operating units that are in scope for group reporting purposes, included the following: <ul style="list-style-type: none"><li>▪ the financial significance of an operating unit to Shell's earnings, total assets or total liabilities, including consideration of the financial significance of specific account balances or transactions;</li><li>▪ the significance of specific risks relating to an operating unit: history of unusual or complex transactions, identification of significant audit issues or the potential for, or a history of, material misstatements;</li><li>▪ the effectiveness of the control environment and monitoring activities, including entity-level controls;</li><li>▪ our assessment of locations that carry a higher than normal audit risk in relation to fraud, bribery or corruption; and;</li><li>▪ the findings, observations and audit differences that we noted as a result of our 2017 audit.</li></ul>

<b>Selection of in-scope operating units</b>	We reassessed our audit scope for 2018 compared to 2017. In particular, we considered Shell's continued enhancement of their finance function and processes, which included the further standardisation and migration of processes to their business service centres (BSCs). This enabled us further to centralise our audit procedures and refocus our scope, reducing the audit involvement at a component level and the number of operating units in our audit scope. Also, our revised scope reflects our view of lower audit risk within Downstream, an increase in centralised audit procedures, the integration of legacy BG Group components and systems, and Shell's disposal programme. We kept our audit scope under review throughout the year to reflect changes in Shell's underlying business and risks; however, no significant changes were required.
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#### ***Full and specific scope***

We selected 52 operating units (2017: 67) across 11 countries (2017: 12) based on their size or risk characteristics. We performed full scope audits of the complete financial information of 19 operating units (2017: 25). For 33 operating units (2017: 42) we performed specific scope audit procedures on individual account balances within the operating unit based on their size and risk profiles.

#### ***Specified***

In addition to the 52 operating units (2017: 67) discussed above, we selected a further 38 operating units (2017: 47) where we performed procedures at the operating unit level that were specified by the group audit team in response to specific risk factors and in order to ensure that, at the overall group level, we reduced and appropriately covered the residual risk of error.

In addition, specified procedures were performed at the group level on a further 62 operating units. These procedures included, the testing of Shell's centralised activities addressing the implications of significant and complex accounting matters across all operating units, our centralised revenue and accounts receivable analytics programme, testing controls for the revenue and purchase to pay processes, including IT general and IT application controls, procedures over investments in securities, segment level impairment reviews, procedures over the forecasts as they relate to deferred tax assets recoverability and review of pension scheme assumptions.

#### ***Group wide procedures***

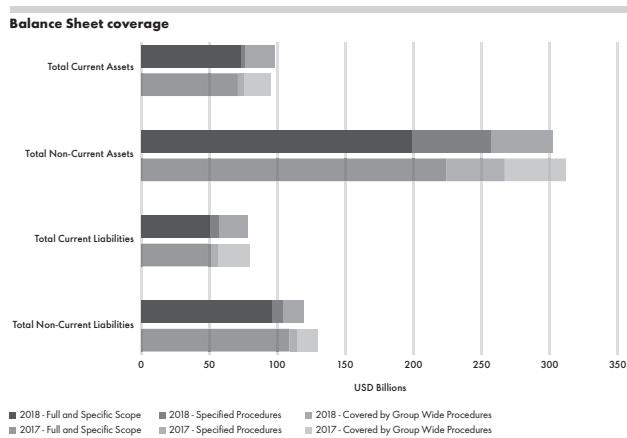
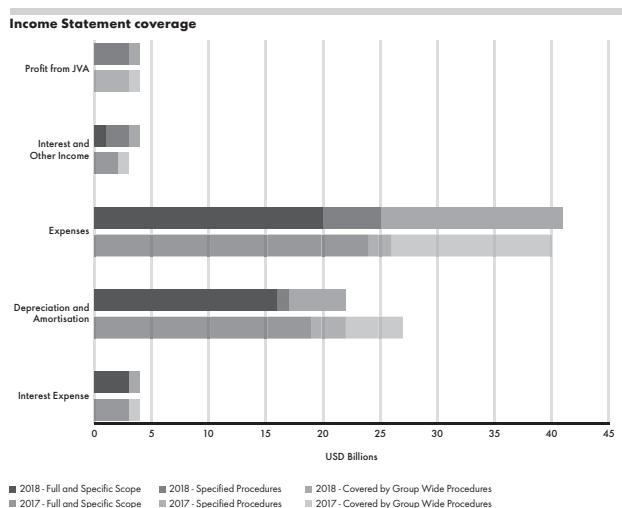
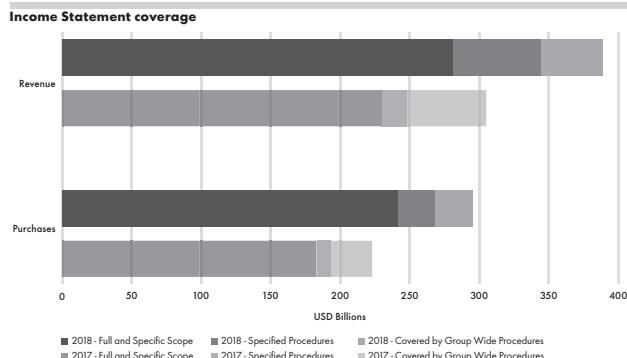
For the remaining 637 operating units (2017: 688) we performed supplementary audit procedures, in relation to Shell's centralised group accounting and reporting processes. These included, but were not limited to, Shell's activities addressing the appropriate elimination of intercompany balances and, the completeness of provisions for litigation and other claims. We performed testing of both manual and consolidation journal entries through the year, homogeneous processes and controls at the BSCs, and testing of group wide IT systems. We performed disaggregated analytical reviews on each financial statement line item and also tested Shell's analytical procedures performed at a group, segment and function level.

In addition to this testing, we applied our Risk Scan analytics techniques, which consolidate internal and external data to identify potential risks of material misstatement. This allowed us to risk rate each of the 637 operating units whereby we identified 155 operating units where we believed that it was appropriate to carry out targeted testing. This included the audit of manual journal entries and/or the testing of payments to third party vendors to ensure that these had been approved in line with Shell's policies and had an appropriate business rationale.

Our coverage by full and specific, specified and group wide procedures is depicted below. The summary is by income statement accounts and balance sheet sub-totals. The dollar amounts shown for each line item represent 100% of the specific account balance. The 2017 comparative data is shown below on a basis consistent with the 2017 audit opinion. Overall, our full, specific and specified procedures accounted for 72% of Shell's absolute CCS earnings, excluding identified items reported by Shell in its quarterly results announcements and adjusted for an effective tax rate. The remaining CCS earnings were covered by group wide procedures.

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# Independent Auditor's Report to the members of Royal Dutch Shell plc Continued



## Allocation of performance materiality to the in-scope operating units

The level of materiality that we applied in undertaking our audit work at the operating unit level was determined by applying a percentage of our total performance materiality. This percentage is based on the significance of the operating unit relative to Shell as a whole and our assessment of the risk of material misstatement at that operating unit. In 2018 the range of materiality applied at the operating unit level was \$113 million to \$375 million (2017: \$40 million to \$260 million). The operating units selected, together with the ranges of materiality applied, were:

	Countries	No. of operating units	Range of materiality applied \$ million
Full scope Segments			
Integrated Gas	Australia, Qatar	4	150-225
Upstream	Brazil, Nigeria, USA	4	150-225
Downstream	Germany, USA	3	150-225
Corporate	UK	1	150
Full scope Function			
Trading and supply	UK, USA, UAE, Barbados, Singapore, the Netherlands	7	281-375
<b>Total full scope</b>		19	
Specific scope Segments			
Upstream	Canada, Kazakhstan, Malaysia, UK	5	150
Downstream	Singapore, USA	6	150
Corporate	The Netherlands, Singapore, UK, USA	11	150
Specific scope Function			
Trading and supply	UK, USA, UAE, Canada, Singapore	11	113-150
<b>Total specific scope</b>		33	
<b>Total full and specific scope</b>		52	

<b>Integrated group team structure</b>	<p>The overall audit strategy is determined by the Senior Statutory Auditor, Allister Wilson. During 2018 he visited five countries to meet with local Ernst &amp; Young (EY) teams and Shell local management (in some cases more than once). The Senior Statutory Auditor is supported by 26 segment and function partners and associate partners, who are based in the Netherlands and the UK. They are responsible for directing, supervising and reviewing the work of EY global network firms operating under our instruction (local EY teams) to evaluate whether:</p> <ul style="list-style-type: none"> <li>▪ the work was performed and documented to a sufficiently high standard;</li> <li>▪ the local EY audit team demonstrated that they had challenged management sufficiently and had executed their audit procedures with a sufficient level of scepticism; and</li> <li>▪ there is sufficient appropriate audit evidence to support the conclusions reached.</li> </ul>
<b>Involvement with local EY teams</b>	<p>Shell has centralised processes and controls over key areas within its BSCs. We have a central team who provide direct oversight, review, and coordination of our BSC audit teams. Our teams performed centralised testing in the BSCs for certain accounts, including revenue, cash and payroll. In establishing our overall approach to the group audit, we determined the type of work that needed to be undertaken at each of the operating units or BSCs by the group audit team or by auditors from other local EY teams.</p> <p>The group audit team performed procedures directly on 62 of the in-scope operating units. For the operating units where the work was performed by local EY auditors, we determined the appropriate level of involvement of the group audit team to enable us to conclude that sufficient appropriate audit evidence had been obtained.</p> <p>The group audit team interacted regularly with the local EY teams during each stage of the audit, were responsible for the scope and direction of the audit process and reviewed key working papers. This, together with the additional procedures performed at the group level, gave us sufficient appropriate audit evidence for our opinion on Shell's Consolidated Financial Statements. We maintained continuous dialogue with our local EY teams in addition to holding formal meetings quarterly to ensure that we were fully aware of their progress and results of their audit procedures.</p> <p>Our local EY partners attended our global team audit planning meeting in November 2017. Also, during 2018, the Senior Statutory Auditor and other group audit partners and directors visited operating units across seven countries and each of Shell's BSCs. These visits included discussing the audit approach with the local EY teams and any issues arising from their work, meetings with local management, attending planning and closing meetings, and reviewing key audit working papers on risk areas. The visits also promote deeper engagement with our local EY audit teams, ensuring that a consistent and cohesive audit approach is adopted that drives a high-quality audit.</p>
<u>Countries visited</u>	<u>BSCs</u>
Australia, Malaysia, UK, Brazil, the Netherlands, USA, Nigeria	India, Malaysia, Poland, Philippines

### **7. OUR ASSESSMENT OF KEY AUDIT MATTERS**

As Shell's auditors, we are required to determine – from the matters communicated by us to the Audit Committee during the year – those matters that required significant attention from us in performing our audit of Shell's 2018 Consolidated Financial Statements. In making this determination we took the following into account:

- the risks that we believed were significant to our audit and therefore required special audit consideration;
- areas of higher assessed risk of material misstatement that influenced our audit focus;
- significant audit judgements relating to areas in Shell's Consolidated Financial Statements that involved significant management judgement, including accounting estimates that we identified as having high estimation uncertainty;
- the effect on our audit of significant events or transactions that occurred during the period; and
- those assessed risks of material misstatement that had the greatest effect on the allocation of resources in the audit and directing the efforts of the audit team.

On this basis, we have identified the following key audit matters that, in our professional judgement, were of most significance in our audit of Shell's 2018 Consolidated Financial Statements. These matters included those that had the greatest effect on: the overall strategy; the allocation of resources in the audit; and directing the efforts of the audit team. The key audit matters have been addressed in the context of the audit of Shell's Consolidated Financial Statements and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The table below describes the key audit matters, a summary of our procedures carried out and our key observations that we communicated to the AC.

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>The estimation of oil and gas reserves, including reserves used in the calculation of depreciation, depletion and amortisation (DD&amp;A)</b>		
<b>At December 31, 2018, Shell reported 11,578 million barrels of oil equivalent of proved developed and undeveloped reserves. (2017: 12,233 million barrels of oil equivalent).</b>	<p>Our reserves team includes auditors with substantial oil and gas reserves expertise, valuation experience and relevant qualifications in energy economics.</p> <p>We carried out the following procedures:</p> <ul style="list-style-type: none"> <li>▪ reconfirmed our understanding of Shell's oil and gas reserves estimation process;</li> <li>▪ tested compliance with significant controls in Shell's oil and gas reserves control framework;</li> <li>▪ confirmed that significant additions or reductions in SEC proved reserves had been made in the period in which the new information became available;</li> <li>▪ tested Shell's internal certification process and controls for technical and commercial experts responsible for reserves estimation;</li> <li>▪ tested the reasonableness of SEC proved undeveloped reserves recognised. Where volumes recognised remained undeveloped for more than five years from the date they were booked, or where development is not expected for at least five years, we ensured that Shell was still working towards development by corroborating with future development plans, including capital expenditure plans as appropriate;</li> <li>▪ where relevant, tested all inputs in the economic limit test for reserves determination, and satisfied ourselves that the economic limit test incorporates Shell's estimate of future CO<sub>2</sub> costs to reflect the potential impact of climate change and energy transition;</li> <li>▪ where reserves are recognised beyond current licence terms we obtained evidence to support the assumption that a licence will be renewed; and</li> <li>▪ where SEC proved developed reserves were not used for DD&amp;A purposes, we challenged management's basis and obtained sufficient and appropriate evidence to ensure that the reserves base used was reasonable and better reflected the expected useful life of the field or facilities.</li> </ul> <p>Our procedures were led by the group audit team, with input from our teams in Australia, Brazil, Canada, Kazakhstan, the Netherlands, Malaysia, Nigeria, Norway, Qatar, Russia, the UK and USA.</p>	In January 2019 we communicated to the AC that, based on our testing performed, we had not identified any significant errors in the oil and gas reserves estimates and concluded that the inputs and assumptions used to estimate proved reserves were reasonable.
The estimation of oil and gas reserves and resources is a significant area of judgement due to the technical uncertainty in assessing the quantities and complex contractual arrangements that dictate Shell's share of reserves and resources volumes. The estimates are based on internal or external experts' assessment of reserves in place, recovery factors and crude quality.		
In-year movements can result from revisions of previous estimates, reclassifications, improved recovery assumptions, extensions and discoveries and purchases and sales.		
The risk relates to significant in-year movements, or lack thereof, in the reserves and resources volumes that materially impact elements of the financial statements including DD&A, impairment testing and decommissioning and restoration provisions. In-year movements generally arise from new information, for example additional drilling results, production patterns, water-cut levels, export facilities and changes in development plans.		

*Cross-reference:* See the AC Report on page 114 for details on how the AC reviewed assurances for proved oil and gas reserves. Also, see Notes 2 and 8 to the "Consolidated Financial Statements", and Supplementary information - oil and gas (unaudited) on page 215.

# Independent Auditor's Report to the members of Royal Dutch Shell plc Continued

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>The recoverable amounts of exploration and production assets, and investments in joint ventures and associates</b>		
<p>At December 31, 2018, Shell recognised \$167 billion of exploration and production assets within property, plant and equipment (PP&amp;E) (2017: \$172 billion). Shell also recognised investments in joint ventures and associates of \$25 billion (2017: \$28 billion).</p> <p>Assets' operational performance and external factors could have a significant impact on the recoverable amounts of Shell's Upstream and Integrated Gas assets. Assessing the recoverable amount of an asset involves a significant amount of judgement. The most critical assumptions in forecasting future cash flows are management's view on the long-term oil and gas price outlook, the discount rate used, future expected production volumes and capital and operating expenditure.</p>	<p>Our procedures included testing for indicators of impairment and reversals of impairment and validating the appropriateness of the level at which the testing took place.</p> <p>We confirmed that Shell's asset impairment methodology was appropriate. Where impairment assessments were carried out, we tested the integrity of the models used. For those assets impaired previously, we evaluated the actual results versus the assumptions made and considered if reversals were required.</p> <p>For price assumptions, we corroborated future short and long-term commodity prices to consensus analysts' forecasts and those adopted by other international oil companies; we confirmed prices were used consistently across Shell and that pricing differentials were reasonable and appropriate and satisfied ourselves that Shell's long-term price assumptions incorporated the potential impact of climate change and energy transition.</p> <p>Our oil and gas valuations team tested the reasonableness of the discount rate used for impairment testing. For cash flow inputs we:</p> <ul style="list-style-type: none"> <li>▪ confirmed that operating expenditure profiles and capital costs to complete construction could be supported by approved operator budgets and management forecasts;</li> <li>▪ confirmed that carbon pricing was included in cash flows, where applicable;</li> <li>▪ reconciled reserves volumes in the impairment models and confirmed that the life-of-field assumptions were consistent with those applied in the decommissioning and restoration provision models; and</li> <li>▪ performed sensitivity analyses on certain key variables in the base case cash flow models to understand the impact of changes in certain assumptions (including oil and gas prices, production and operating expenditure levels).</li> </ul> <p>We assessed the reasonableness of the basis for the risking of the cash flows applied to each individual asset. In so doing, we considered the stage of the life of the asset, country risk and ensured consistency across similar fields.</p> <p>Where impairment tests were undertaken, we stress tested the models using different price scenarios and risked discount rates that we considered reasonable when taking account of the nature of the asset, its location, its stage of development and associated risks.</p> <p>The audit procedures were performed by our group audit team as well as our local audit teams in Australia, Brazil, Canada, Kazakhstan, Malaysia, Nigeria, Qatar, the UK and USA, which covered 79% of PP&amp;E and investments in joint ventures and associates in Upstream and Integrated Gas segments.</p> <p>We also performed specified procedures over the recoverability of investments in joint ventures and associates in Australia, Brazil, Brunei, Canada, Iraq, the Netherlands, Nigeria, Qatar and Russia, which covered an additional 10% of investments in joint ventures and associates in the Upstream and Integrated Gas segments.</p>	<p>We reported that, on the basis of our analysis of future commodity prices used in the impairment models versus other international oil companies and consensus analysts' forecasts, there is strong external evidence to support the reasonableness of Shell's commodity price assumptions – both in the short and long term. We also confirmed that we were satisfied with Shell's approach to estimating future oil and gas prices was robust and appropriate.</p> <p>We confirmed that we were satisfied that the cash flows used in the impairment tests had been risked appropriately and that the discount rate applied was appropriate.</p> <p>We concluded that the impairments and impairment reversals recorded were appropriately determined.</p> <p>Where impairment tests were undertaken and no impairment was recorded, we performed specific procedures, including multi-dimensional sensitivity analysis on the key assumptions that drive the impairment analysis, and concluded that it was reasonable and supportable not to record an impairment charge.</p>

Cross-reference: See the AC Report on page 116 for details on how the AC considered impairments. Also, see Notes 2, 8 and 9 to the "Consolidated Financial Statements".

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>Recognition and measurement of deferred tax assets (DTAs)</b>		
<p>At December 31, 2018, Shell recognised gross DTAs totalling \$29 billion (2017: \$31 billion), which are recognised within two balance sheet line items, deferred tax assets and as an offset against deferred tax liabilities, depending on the overall tax position in a particular jurisdiction.</p> <p>Estimating DTAs requires significant judgement, including the timing of reversals of deferred tax liabilities (DTL) and the availability of future profits against which tax deductions represented by the DTAs can be offset.</p> <p>A significant proportion of DTA balances is supported by forecast future taxable profits, which are derived from Shell's commodity price assumptions and business plans. In some cases, the DTA will be utilised in a period substantially beyond the period of the operating plan.</p>	<p>We considered the expected timing of utilisation of the DTA including the relevant country tax laws that apply to the utilisation of tax losses. This included the ability to carry tax losses forward or back and any restrictions arising from ring fencing tax losses to particular projects.</p> <p>Our procedures depended on whether or not the DTAs were supported by the unwinding of taxable temporary differences, forecast taxable profits or tax planning opportunities that would be necessary to utilise tax losses. We assessed whether the forecast timing of the unwinding of taxable temporary differences were appropriate after considering the nature of the temporary difference and the relevant tax law.</p> <p>For DTAs that are supported by forecast taxable profits or tax planning opportunities, we:</p> <ul style="list-style-type: none"> <li>▪ stress tested the commodity price and/or other key assumptions that underpin Shell's assessment of forecast probable taxable profits;</li> <li>▪ determined the extent to which sufficient probable taxable profits would arise in the period within which the related losses would be available for utilisation, considering for example limits on the length of time that losses can be carried forward (applicable to the USA, the Netherlands and China in particular) or if losses are ring fenced for tax purposes (including the UK and Nigeria); and</li> <li>▪ considered whether the tax balances were calculated using appropriate, and substantively enacted, tax laws and rates.</li> </ul> <p>For the tax planning strategies necessary to justify the recognition of the DTAs, we considered whether or not the planning was reasonable and in line with the current tax law, including satisfying ourselves that sufficient profits would be available in the appropriate periods.</p> <p>Our audit procedures over the recognition and valuation of DTAs were performed by our tax specialist teams in Australia, Brazil, Canada, Germany, Kazakhstan, Nigeria, Singapore, Qatar, the UK and USA, which covered 64% of the gross DTA balance. We also performed specified procedures over the recognition and valuation of DTAs in Canada, Denmark, Germany, Kazakhstan, the Netherlands, Norway and the USA, which covered an additional 22% of the gross DTA balance.</p>	<p>We reported our conclusions to the January 2019 meeting of the AC that we had challenged the robustness of the key management judgements and confirmed that we were satisfied that where DTAs recognised are based on income forecast to arise beyond Shell's planning horizon, we consider that there was sufficient future taxable profit that is probable to support the DTAs; however, we noted that a greater degree of judgement is required in recognising DTAs beyond Shell's planning horizon.</p> <p>We also reported to the AC that the DTAs were appropriately recognised and valued at the year end.</p>

*Cross-reference:* See the AC Report on page 116 for details on how the AC reviewed certain tax matters, in particular the recoverability of deferred tax assets. Also see Notes 2 and 16 to the "Consolidated Financial Statements".

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>Revenue recognition relating to unrealised trading gains and losses</b>		
<p>Shell's Trading and Supply function is integrated within the Downstream, Integrated Gas and Upstream segments and is spread across multiple regions. It is inherently complex and exposes Shell to risks that are not normally associated with core oil and gas activities. Whilst trading is not uncommon amongst international oil and gas companies, it does require a robust internal control environment.</p> <p>In our audit we have considered the risk of unrealised trading gains and losses being recognised because of unauthorised trading activity or deliberate misstatement of Shell's trading positions.</p> <p>The deliberate misstatement of Shell's trading positions or mismarking of positions could result in understated trading losses, overstated trading profits and/or individual bonuses being manipulated through inappropriate inter-period profit/loss allocations.</p>	<p>Our trading audit teams comprise of individuals who have significant experience of auditing both large commodity trading organisations and financial institutions.</p> <p>Our audit procedures focused on:</p> <ul style="list-style-type: none"> <li>▪ investigations as to whether or not there were any breakdowns of trading controls or instances of rogue trading reported or known or suspected frauds;</li> <li>▪ testing controls across the trading and supply function, including IT general and IT application controls;</li> <li>▪ independently obtaining confirmation of a sample of open trading positions with brokers and counterparties, or performing alternative procedures as necessary;</li> <li>▪ performing valuation testing of open positions, including confirming the appropriateness of price curves used;</li> <li>▪ performing independent testing of valuation models, focusing on validating contract terms and key assumptions; and</li> <li>▪ testing the completeness of the amounts recorded in the financial statements through procedures to detect unrecorded liabilities as well as detailed cut-off procedures around sales, purchases, trade receivables and trade payables.</li> </ul> <p>The audit procedures were performed principally by the group audit team and the UK and US component teams.</p> <p>In May 2018, the Senior Statutory Auditor and the Audit Partner responsible for the audit of Shell's Trading and Supply function accompanied the AC on its one-day visit of Shell's Trading and Supply office in London, and attended all discussions on a wide range of matters, including the external market and regulatory environments, market risk, credit risk, assurance and supervision and Brexit planning.</p>	<p>We confirmed that:</p> <ul style="list-style-type: none"> <li>▪ the valuation of derivative contracts as at December 31, 2018 was appropriate;</li> <li>▪ our testing – through a combination of controls testing and expanded substantive audit procedures – satisfied us that the models used to value contracts were appropriate for the purposes of the valuations included in Shell's Consolidated Financial Statements; and</li> <li>▪ the unrealised gains and losses had been recorded appropriately; and</li> <li>▪ our completeness testing did not identify any unrecorded liabilities or significant cut-off issues.</li> </ul>

*Cross-reference: See Note 19 to the "Consolidated Financial Statements".*

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>Recognition, measurement, presentation and disclosure of leases (IFRS 16)</b>		
<p>IFRS 16 is without doubt the most complex new standard that companies such as Shell have had to implement since the adoption of IFRS in 2005.</p> <p>Shell has a significant number of leases that are in scope for IFRS 16. The key complexities include:</p> <ul style="list-style-type: none"> <li>▪ how to apply IFRS 16 to joint arrangements, in particular where the operator enters into a lease on behalf of a joint operation;</li> <li>▪ the determination of the appropriate discount rate to be used in capitalising Shell's operating leases;</li> <li>▪ assessing the appropriate accounting for complex lease structures; and</li> <li>▪ implementing an appropriate system platform that can accommodate the inevitable volume and complexity that a company like Shell would require.</li> </ul> <p>Although the standard is being implemented in 2019, disclosures on the impact are included in these financial statements.</p>	<p>We have audited the impact of the implementation of the new leasing standard on Shell. Our audit procedures primarily focused on the following:</p> <ul style="list-style-type: none"> <li>▪ assessing the completeness of Shell's population of operating leases and that all leases were appropriately uploaded on Shell's lease accounting IT application;</li> <li>▪ analysing the accounting for Shell's complex rig lease structures;</li> <li>▪ assessing the appropriate incremental borrowing rate to be used in capitalising Shell's leases;</li> <li>▪ testing the control framework around the IFRS 16 IT application adopted by Shell; and</li> <li>▪ auditing the disclosures provided in the financial statements on the impact of IFRS 16.</li> </ul> <p>The audit procedures to address this risk were performed principally by the group audit team.</p>	<p>We reported to the Audit Committee that the key complexities surrounding the implementation of IFRS 16 were the determination of the appropriate discount rates to be used in calculating Shell's lease liabilities and the implementation of the IT system that supports the accounting for the large population of leases. Also, we reported that we had engaged our oil and gas valuation specialists to assist in auditing the discount rates adopted by Shell.</p> <p>We reported further that, based on our audit procedures, we were satisfied that the overall additional lease liabilities and right of use assets as at January 1, 2019, were within an acceptable range, albeit the lower end. Accordingly, we confirmed that the disclosures in Note 3 to the Consolidated Financial Statements, on the adoption of IFRS 16 were appropriately prepared in accordance with the standard. Also, we reported that we were satisfied with the design and operating effectiveness of the controls surrounding the IT system that records the individual leases, including the input and output controls.</p>

*Cross-reference:* See the AC Report on page 116 for details on how the AC considered the IFRS 16 implementation. Also, see Note 3 to the "Consolidated Financial Statements".

## Our key audit matters

Risk	Our response to the risk	Key observations communicated to the Shell Audit Committee
<b>Enhancements to Shell's system of IT general controls</b>		
<p>In 2018, Shell management devoted significant effort to enhance and standardise Shell's system of IT general controls (ITGCs), including the implementation of new global IT processes.</p> <p>During any period of significant process change, there is increased risk to the internal financial control environment. Consequently, in addition to the inherent risks associated with auditing the IT systems of a complex global organisation such as Shell, the audit team focused its procedures on the risks associated with the following change programmes:</p> <ul style="list-style-type: none"> <li>▪ further standardisation of Shell's user access management process; and</li> <li>▪ implementation of Shell's enterprise wide IT change management process.</li> </ul>	<p>Our procedures focused on the key IT processes and controls over IT systems critical to our audit. These included: management of changes to systems and access to systems; and IT operations, such as problem and incident management, and back-up and restore.</p> <p>We updated our understanding of Shell's key IT applications and IT transitions that impacted our financial statement audits by carrying out walk-through tests. We identified 130 applications that were critical to our audit and therefore included in our audit scope. We also assessed the risk associated with any key business or IT changes and identified and tested application and IT dependent manual controls that we considered key to the business processes related to financial reporting.</p> <p>Our audit approach involved central testing of ITGCs that we considered important to the financial statements, including:</p> <ul style="list-style-type: none"> <li>▪ management of changes to systems;</li> <li>▪ management of access to systems; and</li> <li>▪ management of IT operations.</li> </ul> <p>The audit procedures to address this risk were performed principally by the BSC and group audit teams.</p>	<p>Throughout 2018, we communicated to the AC the progress of our internal controls testing, including the testing of ITGCs.</p> <p>In January 2019, we confirmed that, through a combination of internal controls testing supplemented by targeted substantive audit procedures, we were satisfied that we had obtained sufficient and appropriate audit evidence over Shell's management of changes to systems, management of access to systems and IT operations for our financial statement audit.</p>

## **8. OTHER INFORMATION**

The other information comprises the information included in the Annual Report set out on pages 1 to 147 and 215 to 236 including the Strategic Report, Governance and Additional Information sections, other than the financial statements and our auditor's report thereon. The Directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

In this context, we also have nothing to report in regard to our responsibility to address specifically the following items in the other information and to report as uncorrected material misstatements of the other information where we conclude that those items meet the following conditions:

- *Fair, balanced and understandable set out on page 92* – the statement given by the Directors that they consider the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess Shell's performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- *Audit Committee reporting set out on page 113 to 118* – the section describing the work of the AC does not appropriately address matters communicated by us to the AC; or
- *Directors' statement of compliance with the UK Corporate Governance Code set out on page 96* – the parts of the Directors' statement required under the Listing Rules relating to Shell's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

## **9. MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION**

In the light of the knowledge and understanding of Shell and the Parent Company, and its environment obtained in the course of our audit, we have not identified material misstatements in the Strategic Report or the Directors' Report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

## **10. RESPONSIBILITIES OF DIRECTORS**

As explained more fully in the statement of Directors' responsibilities set out on page 91, the Directors are responsible for the preparation of the Consolidated Financial Statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing Shell and the Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate Shell or the Parent Company or to cease operations, or have no realistic alternative but to do so.

## **11. AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

## **12. EXPLANATION AS TO WHAT EXTENT THE AUDIT WAS CONSIDERED CAPABLE OF DETECTING IRREGULARITIES, INCLUDING FRAUD**

The objectives of our audit, in respect to fraud, are; to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.

## **Independent Auditor's Report to the members of Royal Dutch Shell plc Continued**

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to Shell and determined that the most significant are those that relate to the reporting framework (IFRS, Companies Act 2006, the UK Corporate Governance Code, the US Securities Exchange Act of 1934 and the Listing Rules of the UK Listing Authority) and the relevant tax compliance regulations in the jurisdictions in which Shell operates. In addition, we concluded that there are certain significant laws and regulations that may have an effect on the determination of the amounts and disclosures in the financial statements and those laws and regulations relating to health and safety, employee matters, environmental, and bribery and corruption practices.
- We understood how Shell is complying with those frameworks by making enquiries of management, internal audit, those responsible for legal and compliance procedures and the Company Secretary. We corroborated our enquiries through our review of Board minutes, papers provided to the AC and correspondence received from regulatory bodies and noted that there was no contradictory evidence.
- We assessed the susceptibility of Shell's Consolidated Financial Statements to material misstatement, including how fraud might occur, by embedding forensic specialists into our audit team. Our forensic specialists worked with the group audit team to identify the fraud risks across various parts of the business. In addition, we utilised internal and external information to perform a fraud risk assessment for each of the countries of operation. We considered the risk of fraud through management override and, in response, we incorporated data analytics across manual journal entries into our audit approach. We also considered the possibility of fraudulent or corrupt payments made through third parties and conducted detailed analytical testing on third party vendors in high risk jurisdictions. Where instances of risk behaviour patterns were identified through our data analytics, we performed additional audit procedures to address each identified risk. These procedures included testing of transactions back to source information and were designed to provide reasonable assurance that the financial statements were free from fraud or error. We also conducted specific audit procedures in relation to the risk of bribery and corruption across various countries of operation determined by a risk based process.
- Based on the results of our risk assessment we designed our audit procedures to identify non-compliance with such laws and regulations identified above. Our procedures involved journal entry testing, with a focus on journals meeting our defined risk criteria based on our understanding of the business; enquiries of legal counsel, group management, internal audit and all full and specific scope management; review of the volume and nature of complaints received by the whistleblowing hotline during the year and focused testing, as discussed in the key audit matters section 7 above.
- If any instance of non-compliance with laws and regulations were identified, these were communicated to the relevant local EY teams who performed sufficient and appropriate audit procedures supplemented by audit procedures performed at the group level. Where appropriate we consulted our forensic specialists.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor's report.

### **13. OTHER MATTERS WE ARE REQUIRED TO ADDRESS**

Following the recommendation of the AC we were re-appointed by the Company's Annual General Meeting (AGM) on May 22, 2018, as auditor of the Company to hold office until the conclusion of the next AGM of the Company, and signed an engagement letter on May 22, 2018. Our total uninterrupted period of engagement is three years covering periods from our appointment through to the period ending December 31, 2018.

The non-audit services prohibited by the FRC's Ethical Standard were not provided to Shell or the Parent Company and we remain independent of Shell and the Parent Company in conducting the audit.

Our audit opinion is consistent with our additional report to the AC explaining the results of our audit.

### **14. USE OF OUR REPORT**

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

**/s/ Allister Wilson (Senior Statutory Auditor)**

for and on behalf of Ernst & Young LLP,

Statutory Auditor

London

March 13, 2019

1. The maintenance and integrity of the Shell website are the responsibility of the Directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
2. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The report set out above is included for the purposes of Royal Dutch Shell plc's 2018 Annual Report and Accounts only and does not form part of Royal Dutch Shell plc's Annual Report on Form 20-F for 2018.

# Report of Independent Registered Public Accounting Firm

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## TO THE BOARD OF DIRECTORS AND SHAREHOLDERS OF ROYAL DUTCH SHELL PLC

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Royal Dutch Shell plc (the Company) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the Consolidated Financial Statements). In our opinion, the Consolidated Financial Statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and in conformity with IFRS as adopted by the European Union.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 13, 2019, expressed an unqualified opinion thereon.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2016.

London, United Kingdom

March 13, 2019

## **Report of Independent Registered Public Accounting Firm Continued**

### **TO THE BOARD OF DIRECTORS AND SHAREHOLDERS OF ROYAL DUTCH SHELL PLC**

#### **Opinion on Internal Control over Financial Reporting**

We have audited Royal Dutch Shell plc's (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Consolidated Financial Statements of the Company, and our report dated March 13, 2019, expressed an unqualified opinion thereon.

#### **Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting as set out on page 104. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

#### **Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

**/s/ Ernst & Young LLP**

London, United Kingdom

March 13, 2019

1. The maintenance and integrity of the Shell website are the responsibility of the Directors of Royal Dutch Shell plc; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
2. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The reports set out above are included for the purposes of Royal Dutch Shell plc's 2018 Annual Report on Form 20-F only and do not form part of Royal Dutch Shell plc's Annual Report on Accounts for 2018.

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## Consolidated Financial Statements Continued

### Consolidated Statement of Income

	Notes	2018	2017	\$ million 2016
Revenue	4	388,379	305,179	233,591
Share of profit of joint ventures and associates	9	4,106	4,225	3,545
Interest and other income	5	4,071	2,466	2,897
Total revenue and other income		396,556	311,870	240,033
Purchases		294,399	223,447	162,574
Production and manufacturing expenses		26,970	26,652	28,434
Selling, distribution and administrative expenses		11,360	10,509	12,101
Research and development		986	922	1,014
Exploration		1,340	1,945	2,108
Depreciation, depletion and amortisation	4	22,135	26,223	24,993
Interest expense	6	3,745	4,042	3,203
Total expenditure		360,935	293,740	234,427
Income before taxation		35,621	18,130	5,606
Taxation charge	16	11,715	4,695	829
Income for the period	4	23,906	13,435	4,777
Income attributable to non controlling interest		554	458	202
Income attributable to Royal Dutch Shell plc shareholders		23,352	12,977	4,575
Basic earnings per share (\$)	24	2.82	1.58	0.58
Diluted earnings per share (\$)	24	2.80	1.56	0.58

### Consolidated Statement of Comprehensive Income

	Notes	2018	2017	\$ million 2016
Income for the period	4	23,906	13,435	4,777
Other comprehensive income/(loss), net of tax	22			
Items that may be reclassified to income in later periods:				
Currency translation differences		(3,172)	5,156	703
Unrealised gains/(losses) on securities		[A]	593	(214)
Debt instruments remeasurements		(15) [A]		
Cash flow hedging gains/(losses)		730	(552)	(617)
Net investment hedging losses		–	–	(2,024)
Deferred cost of hedging		(209) [A]		
Share of other comprehensive (loss)/income of joint ventures and associates	9	(10)	170	(28)
Total		(2,676)	5,367	(2,180)
Items that are not reclassified to income in later periods:				
Retirement benefits remeasurements		3,588	604	(3,817)
Equity instruments remeasurements		(153) [A]		
Share of other comprehensive income of joint ventures and associates	9	193 [A]		
Total		3,628	604	(3,817)
Other comprehensive income/(loss) for the period		952	5,971	(5,997)
Comprehensive income/(loss) for the period		24,858	19,406	(1,220)
Comprehensive income attributable to non-controlling interest		383	578	154
Comprehensive income/(loss) attributable to Royal Dutch Shell plc shareholders		24,475	18,828	(1,374)

[A] See Note 2 Significant accounting policies, judgements and estimates regarding the implementation of IFRS 9 *Financial Instruments*.

## Consolidated Balance Sheet

	Notes	Dec 31, 2018	\$ million Dec 31, 2017
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	7	23,586	24,180
Property, plant and equipment	8	223,175	226,380
Joint ventures and associates	9	25,329	27,927
Investments in securities	10	3,074	7,222
Deferred tax	16	12,097	13,791
Retirement benefits	17	6,051	2,799
Trade and other receivables [A]	11	7,826	8,475
Derivative financial instruments [A]	19	574	919
		301,712	311,693
<b>Current assets</b>			
Inventories	12	21,117	25,223
Trade and other receivables [A]	11	42,431	44,565
Derivative financial instruments [A]	19	7,193	5,304
Cash and cash equivalents	13	26,741	20,312
		97,482	95,404
<b>Total assets</b>		399,194	407,097
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Debt	14	66,690	73,870
Trade and other payables [A]	15	2,735	3,447
Derivative financial instruments [A]	19	1,399	981
Deferred tax	16	14,837	13,007
Retirement benefits	17	11,653	13,247
Decommissioning and other provisions	18	21,533	24,966
		118,847	129,518
<b>Current liabilities</b>			
Debt	14	10,134	11,795
Trade and other payables [A]	15	48,888	51,410
Derivative financial instruments [A]	19	7,184	5,253
Taxes payable	16	7,497	7,250
Retirement benefits	17	451	594
Decommissioning and other provisions	18	3,659	3,465
		77,813	79,767
<b>Total liabilities</b>		196,660	209,285
<b>Equity</b>			
Share capital	20	685	696
Shares held in trust		(1,260)	(917)
Other reserves	22	16,615	16,932
Retained earnings		182,606	177,645
<b>Equity attributable to Royal Dutch Shell plc shareholders</b>		198,646	194,356
Non-controlling interest		3,888	3,456
<b>Total equity</b>		202,534	197,812
<b>Total liabilities and equity</b>		399,194	407,097

[A] With effect from 2018, current and non-current derivative assets and liabilities are no longer presented as part of Trade and other receivables and Trade and other payables, but separately disclosed on the Consolidated Balance Sheet to provide more insight. Comparatives were revised to align with the current year presentation.

Signed on behalf of the Board

/s/ Jessica Uhl

Jessica Uhl  
Chief Financial Officer  
March 13, 2019

## Consolidated Financial Statements Continued

### Consolidated Statement of Changes in Equity

\$ million

	Equity attributable to Royal Dutch Shell plc shareholders						
	Share capital (see Note 20)	Shares held in trust	Other reserves (see Note 22)	Retained earnings	Total	Non- controlling interest	Total equity
<b>At January 1, 2018 (as previously published)</b>	696	(917)	16,932	177,645	194,356	3,456	197,812
Impact of IFRS 9 [A]	–	–	(138)	88	(50)	–	(50)
<b>At January 1, 2018 (as revised)</b>	696	(917)	16,794	177,733	194,306	3,456	197,762
Comprehensive income for the period	–	–	1,123	23,352	24,475	383	24,858
Transfer from other comprehensive income [B]	–	–	(971)	971	–	–	–
Dividends (see Note 23)	–	–	–	(15,675)	(15,675)	(586)	(16,261)
Repurchases of shares [C]	(11)	–	11	(4,519)	(4,519)	–	(4,519)
Share-based compensation [D] [E]	–	(343)	(342)	693	8	–	8
Other changes in non-controlling interest	–	–	–	51	51	635	686
<b>At December 31, 2018</b>	685	(1,260)	16,615	182,606	198,646	3,888	202,534
<b>At January 1, 2017</b>	683	(901)	11,298	175,566	186,646	1,865	188,511
Comprehensive income for the period	–	–	5,851	12,977	18,828	578	19,406
Dividends (see Note 23)	–	–	–	(15,628)	(15,628)	(406)	(16,034)
Scrip dividends (see Note 23)	13	–	(13)	4,751	4,751	–	4,751
Share-based compensation	–	(16)	(204)	(74)	(294)	–	(294)
Other changes in non-controlling interest	–	–	–	53	53	1,419	1,472
<b>At December 31, 2017</b>	696	(917)	16,932	177,645	194,356	3,456	197,812
<b>At January 1, 2016</b>	546	(584)	(17,186)	180,100	162,876	1,245	164,121
Comprehensive loss for the period	–	–	(5,949)	4,575	(1,374)	154	(1,220)
Dividends (see Note 23)	–	–	–	(14,959)	(14,959)	(180)	(15,139)
Scrip dividends (see Note 23)	17	–	(17)	5,282	5,282	–	5,282
Shares issued	120	–	33,930	–	34,050	–	34,050
Share-based compensation	–	(317)	520	141	344	–	344
Other changes in non-controlling interest	–	–	–	427	427	646	1,073
<b>At December 31, 2016</b>	683	(901)	11,298	175,566	186,646	1,865	188,511

[A] See Note 2 Significant Accounting Policies, Judgements and Estimates regarding the implementation of IFRS 9 *Financial Instruments*.

[B] The transfer mainly relates to the sale of Shell's shareholding in Malaysia LNG Tiga Sendirian Berhad (\$617 million) and the sale of shares in Canadian Natural Resources Limited (\$481 million) (see Note 22).

[C] The repurchase of shares recognised through retained earnings includes the aggregate maximum consideration Shell is contractually bound to under the current tranche of the buyback programme, plus associated stamp duty.

[D] The amendments to IFRS 2 *Share-based payment* became effective January 1, 2018. Following adoption of the amendments, components of share-based payments (related to tax) that were previously classified as cash-settled are now classified as equity-settled. This resulted in an increase of \$172 million in the share plan reserve within other reserves and a net increase of \$125 million in retained earnings (see Note 22).

[E] Includes a reclassification of \$503 million between Other reserves and Retained earnings, which relates to the unwinding of expired share options.

**Consolidated Statement of Cash Flows**

	Notes	2018	2017	\$ million 2016
Income for the period	4	23,906	13,435	4,777
Adjustment for:				
Current tax	16	10,475	6,591	2,731
Interest expense (net)		2,878	3,365	2,752
Depreciation, depletion and amortisation	8	22,135	26,223	24,993
Exploration well write-offs [A]		449	897	834
Net gains on sale and revaluation of non-current assets and businesses		(3,265)	(1,640)	(2,141)
Share of profit of joint ventures and associates		(4,106)	(4,225)	(3,545)
Dividends received from joint ventures and associates		4,903	4,998	3,820
Decrease/(increase) in inventories		2,823	(2,079)	(5,658)
Decrease/(increase) in current receivables [A]		1,955	(2,577)	(4,127)
(Decrease)/increase in current payables [A]		(1,336)	2,406	1,359
Derivative financial instruments [A]		799	(1,039)	1,461
Deferred tax, retirement benefits, decommissioning and other provisions [A]		219	(4,300)	(1,588)
Other [A]		921	(98)	(619)
Tax paid		(9,671)	(6,307)	(4,434)
<b>Cash flow from operating activities</b>		<b>53,085</b>	<b>35,650</b>	<b>20,615</b>
Capital expenditure		(23,011)	(20,845)	(22,116)
Acquisition of BG Group plc, net of cash and cash equivalents acquired		–	–	(11,421)
Investments in joint ventures and associates		(880)	(595)	(1,330)
Proceeds from sale of property, plant and equipment and businesses		4,366	8,808	2,072
Proceeds from sale of joint ventures and associates		1,594	2,177	1,565
Interest received		823	724	470
Other		3,449 [B]	1,702 [C]	(203)
<b>Cash flow from investing activities</b>		<b>(13,659)</b>	<b>(8,029)</b>	<b>(30,963)</b>
Net decrease in debt with maturity period within three months		(396)	(869)	(360)
Other debt:				
New borrowings		3,977	760	18,144
Repayments		(11,912)	(11,720)	(6,710)
Interest paid		(3,574)	(3,550)	(2,938)
Change in non-controlling interest		678	293	1,110
Cash dividends paid to:				
Royal Dutch Shell plc shareholders	23	(15,675)	(10,877)	(9,677)
Non-controlling interest		(584)	(406)	(180)
Repurchases of shares		(3,947)	–	–
Shares held in trust: net purchases and dividends received		(1,115)	(717)	(160)
<b>Cash flow from financing activities</b>		<b>(32,548)</b>	<b>(27,086)</b>	<b>(771)</b>
Currency translation differences relating to cash and cash equivalents		(449)	647	(1,503)
Increase/(decrease) in cash and cash equivalents		6,429	1,182	(12,622)
Cash and cash equivalents at beginning of year		20,312	19,130	31,752
Cash and cash equivalents at end of year	13	26,741	20,312	19,130

[A] With effect from 2018 Exploration well write offs, previously presented under Other and changes in current and non current Derivative financial instruments previously presented under Decrease/increases in current receivables and payables and Other are shown separately. Prior years comparatives within Cash flow from operating activities have been revised to conform with the current year presentation. Overall, the revisions do not have an impact on the previously published cash flow from operating activities.

[B] Includes \$3,307 million from the sale of shares in Canadian Natural Resources Limited, which were received in connection with the oil sands divestment.

[C] Includes \$2,635 million from the sale of Shell's interest in Woodside Petroleum Limited.

# Notes to the Consolidated Financial Statements

## 1 BASIS OF PREPARATION

The Consolidated Financial Statements of Royal Dutch Shell plc (the Company) and its subsidiaries (collectively referred to as Shell) have been prepared in accordance with the provisions of the Companies Act 2006 (the Act) and Article 4 of the IAS Regulation, and therefore in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. As applied to Shell, there are no material differences from IFRS as issued by the International Accounting Standards Board (IASB); therefore, the Consolidated Financial Statements have been prepared in accordance with IFRS as issued by the IASB.

As described in the accounting policies in Note 2, the Consolidated Financial Statements have been prepared under the historical cost convention except for certain items measured at fair value. Those accounting policies have been applied consistently in all periods, except for those accounting standards that were adopted from January 1, 2018 (see Note 2 below).

The Consolidated Financial Statements were approved and authorised for issue by the Board of Directors on March 13, 2019.

## 2 SIGNIFICANT ACCOUNTING POLICIES, JUDGEMENTS AND ESTIMATES

This Note describes Shell's significant accounting policies, which are those relevant to an understanding of the Consolidated Financial Statements and includes the measurement bases used in their preparation. It allows an understanding as to how transactions, other events and conditions are reported. It also describes: (a) judgements, apart from those involving estimations, that management makes in applying the policies that have the most significant effect on the amounts recognised in the Consolidated Financial Statements; and (b) estimations, including assumptions about the future, that management makes in applying the policies. The sources of estimation uncertainty that have a significant risk of a material adjustment to the carrying amounts of assets and liabilities within the next financial year are specifically identified as a significant estimate.

The accounting policies applied are consistent with those of the previous financial years except for the adoption as from January 1, 2018 of IFRS 9 *Financial Instruments* (IFRS 9), IFRS 15 *Revenue from Contracts with Customers* (IFRS 15) and IFRS 2 *Share-based payment* (IFRS 2) amendments: Classification and measurement of share-based payment transactions.

IFRS 9 sets out the requirements for recognising and measuring financial assets, financial liabilities and certain contracts to buy or sell non-financial items. Furthermore, on a prospective basis the standard facilitates use of hedge accounting and results in different income recognition upon the sale of certain investments in securities. The adoption of IFRS 9 resulted in a decrease of \$83 million in equity at January 1, 2018, mainly representing the recognition of additional provisions for impairment of receivables under the expected credit loss model. In addition, changing the measurement basis from amortised cost to fair value for certain financial assets resulted in an increase of \$33 million in equity at January 1, 2018. Furthermore, a reclassification within equity between other reserves and retained earnings, primarily representing deferred cost of hedging, was recognised.

IFRS 15 provides a single model of accounting for revenue arising from contracts with customers based on the identification and satisfaction of performance obligations, and revenue from contracts with customers that is distinguished from other resources. For the adoption of IFRS 15 the modified retrospective transition approach was applied. Although the accounting for certain contracts, such as those with provisional pricing or take-or pay arrangements, and underlifts and overlifts, did change, no transition adjustment is presented as the adoption did not have a significant effect on Shell's accounting or disclosures.

The amendments to IFRS 2 became effective January 1, 2018. Following adoption of the amendments, components of share-based payments (related to tax) that were previously classified as cash-settled are now classified as equity-settled. This resulted in an increase of \$172 million in the share plan reserve within other reserves and a net increase of \$125 million in retained earnings.

## NATURE OF THE CONSOLIDATED FINANCIAL STATEMENTS

The Consolidated Financial Statements are presented in US dollars (dollars) and comprise the financial statements of the Company and its subsidiaries, being those entities over which the Company has control, either directly or indirectly, through exposure or rights to their variable returns and the ability to affect those returns through its power over the entities. Information about subsidiaries at December 31, 2018, can be found in Exhibit 8.

Subsidiaries are consolidated from the date on which control is obtained until the date that such control ceases, using consistent accounting policies. All inter-company balances and transactions, including unrealised profits arising from such transactions, are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Non-controlling interest represents the proportion of income, other comprehensive income and net assets in subsidiaries that is not attributable to the Company's shareholders.

## CURRENCY TRANSLATION

Foreign currency transactions are translated using the exchange rate at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at quarter-end exchange rates of monetary assets and liabilities denominated in foreign currencies (including those in respect of inter-company balances, unless related to loans of a long-term investment nature)

are recognised in income, except when recognised in other comprehensive income in respect of cash flow or net investment hedges, and presented within interest and other income or within purchases where not related to financing. Share capital issued in currencies other than the dollar is translated at the exchange rate at the date of issue.

On consolidation, assets and liabilities of non-dollar entities are translated to dollars at year-end rates of exchange, while their statements of income, other comprehensive income and cash flows are translated at quarterly average rates. The resulting translation differences are recognised as currency translation differences within other comprehensive income. Upon sale of all or part of an interest in, or upon liquidation of, an entity, the appropriate portion of cumulative currency translation differences related to that entity are generally recognised in income.

#### **REVENUE RECOGNITION (from January 1, 2018)**

Revenue from sales of oil, natural gas, chemicals and other products is recognised at the transaction price which Shell expects to be entitled to, after deducting sales taxes, excise duties and similar levies. For contracts that contain separate performance obligations the transaction price is allocated to those separate performance obligations by reference to their relative standalone selling prices.

Revenue is recognised when control of the products has been transferred to the customer. For sales by Integrated Gas and Upstream operations, this generally occurs when the product is physically transferred into a vessel, pipe or other delivery mechanism; for sales by refining operations, it is either when the product is placed onboard a vessel or offloaded from the vessel, depending on the contractually agreed terms; and for sales of oil products and chemicals, it is either at the point of delivery or the point of receipt, depending on contractual conditions.

Revenue resulting from hydrocarbon production from properties in which Shell has an interest with partners in joint arrangements is recognised on the basis of Shell's volumes lifted and sold. Revenue resulting from the production of oil and natural gas under production-sharing contracts (PSCs) is recognised for those amounts relating to Shell's cost recoveries and Shell's share of the remaining production. Gains and losses on derivative contracts and the revenue and costs associated with other contracts that are classified as held for trading purposes are reported on a net basis in the Consolidated Statement of Income. Purchases and sales of hydrocarbons under exchange contracts that are necessary to obtain or reposition feedstocks for refinery operations are presented net in the Consolidated Statement of Income.

Revenue resulting from arrangements that are not considered contracts with customers is presented as revenue from other sources.

#### **REVENUE RECOGNITION (prior to January 1, 2018)**

Revenue from sales of oil, natural gas, chemicals and other products is recognised at the fair value of consideration received or receivable, after deducting sales taxes, excise duties and similar levies, when the significant risks and rewards of ownership have been transferred, which is when title passes to the customer. For sales by Integrated Gas and Upstream operations, this generally occurs when product is physically transferred into a vessel, pipe or other delivery mechanism; for sales by refining operations, it is either when product is placed onboard a vessel or offloaded from the vessel, depending on the contractually agreed terms; and for sales of oil products and chemicals, it is either at the point of delivery or the point of receipt, depending on contractual conditions.

Revenue resulting from hydrocarbon production from properties in which Shell has an interest with partners in joint arrangements is recognised on the basis of Shell's working interest (entitlement method). Revenue resulting from the production of oil and natural gas under production-sharing contracts (PSCs) is recognised for those amounts relating to Shell's cost recoveries and Shell's share of the remaining production. Gains and losses on derivative contracts and the revenue and costs associated with other contracts that are classified as held for trading purposes are reported on a net basis in the Consolidated Statement of Income. Purchases and sales of hydrocarbons under exchange contracts that are necessary to obtain or reposition feedstocks for refinery operations are presented net in the Consolidated Statement of Income.

#### **RESEARCH AND DEVELOPMENT**

Development costs that are expected to generate probable future economic benefits are capitalised as intangible assets. All other research and development expenditure is recognised in income as incurred.

#### **EXPLORATION COSTS**

Hydrocarbon exploration costs are accounted for under the successful efforts method: exploration costs are recognised in income when incurred, except that exploratory drilling costs, including in respect of operating leases, are included in property, plant and equipment pending determination of proved reserves. Exploration costs capitalised in respect of exploration wells that are more than 12 months old are written off unless: (a) proved reserves are booked; or (b) (i) they have found commercially producible quantities of reserves and (ii) they are subject to further exploration or appraisal activity in that either drilling of additional exploratory wells is under way or firmly planned for the near future or other activities are being undertaken to sufficiently progress the assessing of reserves and the economic and operating viability of the project.

## PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

### Recognition

Property, plant and equipment comprise assets owned by Shell, assets held by Shell under finance leases and assets operated by Shell as contractor in PSCs. They include rights and concessions in respect of properties with proved reserves (proved properties) and with no proved reserves (unproved properties). Property, plant and equipment, including expenditure on major inspections, and intangible assets are initially recognised in the Consolidated Balance Sheet at cost where it is probable that they will generate future economic benefits. This includes capitalisation of decommissioning and restoration costs associated with provisions for asset retirement (see "Provisions"), certain development costs (see "Research and development") and the effects of associated cash flow hedges (see "Financial instruments (from January 1, 2018)") as applicable. The accounting for exploration costs is described separately (see "Exploration costs"). Intangible assets include goodwill, liquefied natural gas (LNG) off-take and sales contracts obtained through acquisition, software costs and trademarks. Interest is capitalised, as an increase in property, plant and equipment, on major capital projects during construction.

Property, plant and equipment and intangible assets are subsequently carried at cost less accumulated depreciation, depletion and amortisation (including any impairment). Gains and losses on sale are determined by comparing the proceeds with the carrying amounts of assets sold and are recognised in income, within interest and other income.

An asset is classified as held for sale if its carrying amount will be recovered principally through sale rather than through continuing use, which is when the sale is highly probable, and it is available for immediate sale. Assets classified as held for sale are measured at the lower of the carrying amount upon classification and the fair value less costs to sell.

### Depreciation, depletion and amortisation

Property, plant and equipment related to hydrocarbon production activities are in principle depreciated on a unit-of-production basis over the proved developed reserves of the field concerned, other than assets whose useful lives differ from the lifetime of the field which are depreciated applying the straight-line method. However, for certain Upstream assets, the use for this purpose of proved developed reserves, which are determined using the SEC-mandated yearly average oil and gas prices, would result in depreciation charges for these assets which do not reflect the pattern in which their future economic benefits are expected to be consumed as, for example, it may result in assets with long-term expected lives being depreciated in full within one year. Therefore, in these instances, other approaches are applied to determine the reserves base for the purpose of calculating depreciation, such as using management's expectations of future oil and gas prices rather than yearly average prices, to provide a phasing of periodic depreciation charges that more appropriately reflects the expected utilisation of the assets concerned.

Rights and concessions in respect of proved properties are depleted on the unit-of-production basis over the total proved reserves of the relevant area. Where individually insignificant, unproved properties may be grouped and depreciated based on factors such as the average concession term and past experience of recognising proved reserves.

Property, plant and equipment held under finance leases and capitalised LNG off-take and sales contracts are depreciated or amortised over the term of the respective contract. Other property, plant and equipment and intangible assets are depreciated or amortised on a straight-line basis over their estimated useful lives, except for goodwill, which is not amortised. They include refineries and chemical plants (for which the useful life is generally 20 years), retail service stations (15 years), upgraders (30 years) and major inspection costs, which are depreciated over the estimated period before the next planned major inspection (three to five years).

On classification of an asset as held for sale, depreciation ceases.

Estimates of the useful lives and residual values of property, plant and equipment and intangible assets are reviewed annually and adjusted if appropriate.

### Impairment

The carrying amount of goodwill is tested for impairment annually; in addition, assets other than unproved properties (see "Exploration costs") are tested for impairment whenever events or changes in circumstances indicate that the carrying amounts for those assets may not be recoverable. On classification as held for sale, the carrying amounts of property, plant and equipment and intangible assets are also reviewed. If assets are determined to be impaired, the carrying amounts of those assets are written down to their recoverable amount, which is the higher of fair value less costs to sell (see "Fair value measurements") and value in use.

Value in use is determined as the amount of estimated risk-adjusted discounted future cash flows. For this purpose, assets are grouped into cash-generating units based on separately identifiable and largely independent cash inflows. Estimates of future cash flows used in the evaluation of impairment of assets are made using management's forecasts of commodity prices, market supply and demand, product margins and, in the case of exploration and production assets, expected production volumes. The latter takes into account assessments of field and reservoir performance and includes expectations about both proved reserves and volumes that are expected to constitute proved reserves in the future (unproved volumes), which are risk-weighted utilising geological, production, recovery and economic projections. Cash flow estimates are risk-adjusted to reflect local conditions as appropriate and discounted at a rate based on Shell's marginal cost of debt.

Impairments, except those related to goodwill, are reversed as applicable to the extent that the events or circumstances that triggered the original impairment have changed.

Impairment losses and reversals are reported within depreciation, depletion and amortisation.

### Judgements and estimates

#### Proved oil and gas reserves

Unit-of-production depreciation, depletion and amortisation charges are principally measured based on management's estimates of proved developed oil and gas reserves. Also, exploration drilling costs are capitalised pending the results of further exploration or appraisal activity, which may take several years to complete and before any related proved reserves can be booked.

Proved reserves are estimated by reference to available geological and engineering data and only include volumes for which access to market is assured with reasonable certainty. Yearly average oil and gas prices are applied in the determination of proved reserves. Estimates of proved reserves are inherently imprecise, require the application of judgement and are subject to regular revision, either upward or downward, based on new information such as from the drilling of additional wells, observation of long-term reservoir performance under producing conditions and changes in economic factors, including product prices, contract terms, legislation or development plans.

Changes to estimates of proved developed reserves affect prospectively the amounts of depreciation, depletion and amortisation charged and, consequently, the carrying amounts of exploration and production assets. It is expected, however, that in the normal course of business the diversity of the asset portfolio will limit the effect of such revisions. The outcome of, or assessment of plans for, exploration or appraisal activity may result in the related capitalised exploration drilling costs being recognised in income in that period.

Judgement is involved in determining when to use an alternative reserves base in order to appropriately reflect the expected utilisation of the assets concerned (see "Depreciation, depletion and amortisation").

Information about the carrying amounts of exploration and production assets and the amounts charged to income, including depreciation, depletion and amortisation and the quantitative impact of the use of an alternative reserve base, is presented in Note 8.

#### Impairment

For the purposes of determining whether impairment of assets has occurred, and the extent of any impairment loss or its reversal, the key assumptions management uses in estimating risk-adjusted future cash flows for value-in-use measures are future oil and gas prices, expected production volumes and refining margins appropriate to the local circumstances and environment. These assumptions and the judgements of management that are based on them are subject to change as new information becomes available. Changes in economic conditions can also affect the rate used to discount future cash flow estimates.

The determination of cash-generating units requires judgement. Changes in this determination could impact the calculation of value in use and therefore the conclusion on the recoverability of assets' carrying amounts when performing an impairment test.

Judgement, which is subject to change as new information becomes available, can be required in determining when an asset is classified as held for sale. A change in that judgement could result in impairment charges affecting income, depending on whether classification requires a write down of the asset to its fair value less costs to sell.

#### Significant estimate

Future price assumptions, presented in Note 8, tend to be stable because management does not consider short-term increases or decreases in prices as being indicative of long-term levels, but they are nonetheless subject to change. Expected production volumes, which comprise proved reserves and unproved volumes, are used for impairment testing because management believes this to be the most appropriate indicator of expected future cash flows. As discussed in "Proved oil and gas reserves" above, reserves estimates are inherently imprecise. Furthermore, projections about unproved volumes are based on information that is necessarily less robust than that available for mature reservoirs. Due to the nature and geographical spread of the business activity in which those assets are used, it is typically not practicable to estimate the likelihood or extent of impairments under different sets of assumptions for Shell overall.

Changes in assumptions could affect the carrying amounts of assets, and any impairment losses and reversals will affect income.

Information about the carrying amounts of assets and impairments is presented in Notes 7 and 8.

#### LEASES

Agreements under which payments are made to owners in return for the right to use an asset for a period are accounted for as leases. Leases that transfer substantially all the risks and rewards of ownership are recognised at the commencement of the lease term as finance leases within property, plant and

equipment and debt at the fair value of the leased asset or, if lower, at the present value of the minimum lease payments. Finance lease payments are apportioned between interest expense and repayments of debt. All other leases are classified as operating leases and the cost is recognised in income on a straight-line basis, except where capitalised as exploration drilling costs (see "Exploration costs").

## **JOINT ARRANGEMENTS AND ASSOCIATES**

Arrangements under which Shell has contractually agreed to share control (see "Nature of the Consolidated Financial Statements" for the definition of control) with another party or parties are joint ventures where the parties have rights to the net assets of the arrangement, or joint operations where the parties have rights to the assets and obligations for the liabilities relating to the arrangement. Investments in entities over which Shell has the right to exercise significant influence but neither control nor joint control are classified as associates. Information about incorporated joint arrangements and associates at December 31, 2018, can be found in Exhibit 8.

Investments in joint ventures and associates are accounted for using the equity method, under which the investment is initially recognised at cost and subsequently adjusted for the Shell share of post-acquisition income less dividends received and the Shell share of other comprehensive income and other movements in equity, together with any loans of a long-term investment nature. Where necessary, adjustments are made to the financial statements of joint ventures and associates to bring the accounting policies used into line with those of Shell. In an exchange of assets and liabilities for an interest in a joint venture, the non-Shell share of any excess of the fair value of the assets and liabilities transferred over the pre-exchange carrying amounts is recognised in income. Unrealised gains on other transactions between Shell and its joint ventures and associates are eliminated to the extent of Shell's interest in them; unrealised losses are treated similarly but may also result in an assessment of whether the asset transferred is impaired.

Shell recognises its assets and liabilities relating to its interests in joint operations, including its share of assets held jointly and liabilities incurred jointly with other partners.

## **INVENTORIES**

Inventories are stated at cost or net realisable value, whichever is lower. Cost comprises direct purchase costs (including transportation), and associated costs incurred in bringing inventories to their present condition and location, and is determined using the first-in, first-out (FIFO) method for oil, gas and chemicals and by the weighted average cost method for materials.

## **TAXATION**

The charge for current tax is calculated based on the income reported by the Company and its subsidiaries, as adjusted for items that are non-taxable or disallowed and using rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is determined, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the Consolidated Balance Sheet and on unused tax losses and credits carried forward.

Deferred tax assets and liabilities are calculated using the enacted or substantively enacted rates that are expected to apply when an asset is realised or a liability is settled. They are not recognised where they arise on the initial recognition of goodwill or of an asset or liability in a transaction (other than in a business combination) that, at the time of the transaction, affects neither accounting nor taxable profit, or in respect of taxable temporary differences associated with subsidiaries, joint ventures and associates where the reversal of the respective temporary difference can be controlled by Shell and it is probable that it will not reverse in the foreseeable future.

Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the deductible temporary differences, unused tax losses and credits carried forward can be utilised.

Income taxes are recognised in income except when they relate to items recognised in other comprehensive income, in which case the tax is recognised in other comprehensive income. Income tax assets and liabilities are presented separately in the Consolidated Balance Sheet except where there is a right of offset within fiscal jurisdictions and an intention to settle such balances on a net basis.

## **Judgements and estimates**

Tax liabilities are recognised when it is considered probable that there will be a future outflow of funds to a taxing authority. In such cases, provision is made for the amount that is expected to be settled, where this can be reasonably estimated. A change in estimate of the likelihood of a future outflow and/or in the expected amount to be settled would be recognised in income in the period in which the change occurs. This requires the application of judgement as to the ultimate outcome, which can change over time depending on facts and circumstances. Judgements mainly relate to transfer pricing, including inter-company financing, interpretation of PSCs, expenditure deductible for tax purposes and taxation arising on disposal.

Deferred tax assets are recognised only to the extent it is considered probable that those assets will be recoverable. This involves an assessment of when those assets are likely to reverse, and a judgement as to whether or not there will be sufficient taxable profits available to offset the assets when they do reverse. This requires assumptions regarding future profitability and is therefore inherently uncertain. To the extent assumptions regarding future profitability

change, there can be an increase or decrease in the amounts recognised in respect of deferred tax assets as well as in the amounts recognised in income in the period in which the change occurs.

Taxation information, including charges and deferred tax assets and liabilities, is presented in Note 16. Income taxes include taxes at higher rates levied on income from certain Integrated Gas and Upstream activities.

## **RETIREMENT BENEFITS**

Benefits in the form of retirement pensions and healthcare and life insurance are provided to certain employees and retirees under defined benefit and defined contribution plans.

Obligations under defined benefit plans are calculated annually by independent actuaries using the projected unit credit method, which takes into account employees' years of service and, for pensions, average or final pensionable remuneration, and are discounted to their present value using interest rates of high-quality corporate bonds denominated in the currency in which the benefits will be paid and of a duration consistent with the plan obligations. Where plans are funded, payments are made to independently managed trusts; assets held by those trusts are measured at fair value. Defined benefit plan surpluses are recognised as assets to the extent that they are considered recoverable, which is generally by way of a refund or lower future employer contributions.

The amounts recognised in income in respect of defined benefit plans mainly comprise service cost and net interest. Service cost comprises principally the increase in the present value of the obligation for benefits resulting from employee service during the period (current service cost) and also amounts relating to past service and settlements or amendments of plans. Plan amendments are changes to benefits and are generally recognised when all legal and regulatory approvals have been received and the effects have been communicated to members. Net interest is calculated using the net defined benefit liability or asset matched against the discount rate yield curve at the beginning of each year for each plan. Remeasurements of the net defined benefit liability or asset resulting from actuarial gains and losses and the return on plan assets excluding the amount recognised in income are recognised in other comprehensive income.

For defined contribution plans, pension expense represents the amount of employer contributions payable for the period.

## **Significant judgements and estimates**

Defined benefit obligations and plan assets, and the resulting liabilities and assets that are recognised, are subject to significant volatility as actuarial assumptions regarding future outcomes and market values change. Substantial judgement is required in determining the actuarial assumptions, which vary for the different plans to reflect local conditions but are determined under a common process in consultation with independent actuaries. The assumptions applied in respect of each plan are reviewed annually and adjusted where necessary to reflect changes in experience and actuarial recommendations.

Information about the amounts reported in respect of defined benefit pension plans, assumptions applicable to the principal plans and their sensitivity to changes are presented in Note 17.

## **PROVISIONS**

Provisions are recognised at the balance sheet date at management's best estimate of the expenditure required to settle the present obligation. Non-current amounts are discounted at a rate intended to reflect the time value of money. The carrying amounts of provisions are regularly reviewed and adjusted for new facts or changes in law or technology.

Provisions for decommissioning and restoration costs, which arise principally in connection with hydrocarbon production facilities and pipelines, are measured on the basis of current requirements, technology and price levels; the present value is calculated using amounts discounted over the useful economic life of the assets. The liability is recognised (together with a corresponding amount as part of the related property, plant and equipment) once an obligation crystallises in the period when a reasonable estimate can be made. The effects of changes resulting from revisions to the timing or the amount of the original estimate of the provision are reflected on a prospective basis, generally by adjustment to the carrying amount of the related property, plant and equipment. However, where there is no related asset, or the change reduces the carrying amount to nil, the effect, or the amount in excess of the reduction in the related asset to nil, is recognised in income.

Redundancy provisions are recognised when a detailed formal plan identifies the business or part of the business concerned, the location and number of employees affected, a detailed estimate of the associated costs and an appropriate timeline, and the employees affected have been notified of the plan's main features.

Other provisions are recognised in income in the period in which an obligation arises and the amount can be reasonably estimated. Provisions are measured based on current legal requirements and existing technology where applicable. Recognition of any joint and several liability is based on management's best estimate of the final pro rata share of the liability. Provisions are determined independently of expected insurance recoveries. Recoveries are recognised when virtually certain of realisation.

## **Significant estimates**

Estimates of provisions for future decommissioning and restoration costs are recognised and based on current legal and constructive requirements, technology and price levels. Because actual outflows can differ from estimates due to changes in laws, regulations, public expectations, technology, prices and conditions, and can take place many years in the future, the carrying amounts of provisions are regularly reviewed and adjusted to take account of such changes. The discount rate applied is reviewed annually.

Information about decommissioning and restoration provisions is presented in Note 18.

## **FINANCIAL INSTRUMENTS (from January 1, 2018)**

Financial assets and liabilities are presented separately in the Consolidated Balance Sheet except where there is a legally enforceable right of offset and Shell has the intention to settle on a net basis or realise the asset and settle the liability simultaneously.

### **Financial Assets**

Financial assets are classified at initial recognition and subsequently measured at amortised cost, fair value through other comprehensive income or fair value through profit or loss. The classification of financial assets is determined by the contractual cash flows and where applicable the business model for managing the financial assets.

A financial asset is measured at amortised cost, if the objective of the business model is to hold the financial asset in order to collect contractual cash flows and the contractual terms give rise to cash flows that are solely payments of principal and interest. It is initially recognised at fair value plus or minus transaction costs that are directly attributable to the acquisition or issue of the financial asset. Subsequently the financial asset is measured using the effective interest method less any impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

All equity instruments and other debt instruments are recognised at fair value. For equity instruments, on initial recognition, an irrevocable election (on an instrument-by-instrument basis) can be made to designate these as at fair value through other comprehensive income instead of fair value through profit and loss. Dividends received on equity instruments are recognised as other income in profit or loss when the right of payment has been established, except when the company benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income.

### **Investments in securities**

Investments in securities ("securities") comprise equity and debt securities. Equity securities are carried at fair value. Generally, unrealised holding gains and losses are recognised in other comprehensive income. On sale, net gains and losses previously accumulated in other comprehensive income are transferred to retained earnings. Debt securities are generally carried at fair value with unrealised holding gains and losses recognised in other comprehensive income. On sale, net gains and losses previously accumulated in other comprehensive income are recognised in income.

### **Impairment of financial assets**

The expected credit loss model is applied for recognition and measurement of impairments in financial assets measured at amortised cost or at fair value through other comprehensive income. The expected credit loss model also is applied for financial guarantee contracts to which IFRS 9 applies and are not accounted for at fair value through profit or loss. The loss allowance for the financial asset is measured at an amount equal to the 12-month expected credit losses. If the credit risk on the financial asset has increased significantly since initial recognition, the loss allowance for the financial asset is measured at an amount equal to the lifetime expected credit losses. Changes in loss allowances are recognised in profit and loss. For trade receivables, a simplified impairment approach is applied recognising expected lifetime losses from initial recognition.

### **Significant estimate**

Receivables from governments may be large and subject to disputes. Recoverability is subject to uncertainty as to the settlement of amounts including tax, royalty, cost recovery and associated interest. Information about government receivables is presented in Note 11.

### **Financial Liabilities**

Financial liabilities are measured at amortised cost, unless they are required to be measured at fair value through profit or loss, such as instruments held for trading, or Shell has opted to measure them at fair value through profit or loss. Debt and trade payables are recognised initially at fair value based on amounts exchanged, net of transaction costs, and subsequently at amortised cost except for fixed rate debt subject to fair value hedging which is remeasured for the hedged risk (see below). Interest expense on debt is accounted for using the effective interest method, and other than interest capitalised, is recognised in income. For financial liabilities that are measured under the fair value option, the change in the fair value related to own credit risk is recognised in other comprehensive income. The remaining fair value change is recognised to fair value through profit and loss.

### **Derivative contracts and hedges**

Derivative contracts are used in the management of interest rate risk, foreign exchange risk, commodity price risk, and foreign currency cash balances. Derivatives that are not closely related to the host contract in terms of economic characteristics and risks of which the host contract is not a financial asset, are separated from their host contract and recognised at fair value with the associated gains and losses recognised in income.

Certain derivative contracts qualify and are designated either as a "fair value" hedge of the change in fair value of a recognised asset or liability or an unrecognised firm commitment or as a "cash flow" hedge for the change in cash flows to be received or paid relating to a recognised asset or liability or a highly probable forecast transaction.

A change in the fair value of a fair value hedge is recognised in income, together with the consequential adjustment to the carrying amount of the hedged item. The effective portion of a change in fair value of a derivative contract designated as a cash flow hedge is recognised in other comprehensive income until the hedged transaction occurs; any ineffective portion is recognised in income. Where the hedged item is a non-financial asset or liability, the amount in accumulated other comprehensive income is transferred to the initial carrying amount of the asset or liability (reclassified to the balance sheet); for other hedged items, the amount in accumulated other comprehensive income is reclassified to income when the hedged transaction affects income.

The effective portion of a change due to retranslation at quarter-end exchange rates in the carrying amount of debt and the principal amount of derivative contracts used to hedge net investments in foreign operations is recognised in other comprehensive income until the related investment is sold or liquidated; any ineffective portion is recognised in income.

All relationships between hedging instruments and hedged items are documented, as well as risk management objectives and strategies for undertaking hedge transactions. The effectiveness of hedges is also continually assessed and hedge accounting is discontinued when there is a change in the risk management strategy.

Unless designated as hedging instruments, contracts to sell or purchase non-financial items that can be settled net as if the contracts were financial instruments and that do not meet expected own use requirements (typically, forward sale and purchase contracts for commodities in trading operations), and contracts that are or contain written options, are recognised at fair value; associated gains and losses are recognised in income.

## **FINANCIAL INSTRUMENTS (prior to January 1, 2018)**

Financial assets and liabilities are presented separately in the Consolidated Balance Sheet except where there is a legally enforceable right of offset and Shell has the intention to settle on a net basis or realise the asset and settle the liability simultaneously.

### **Financial assets**

Investments in securities

Investments in securities (also referred to as "securities") comprise equity and debt securities classified on initial recognition as available-for-sale and are carried at fair value, except where their fair value cannot be measured reliably, in which case they are carried at cost, less any impairment. Unrealised holding gains and losses other than impairments are recognised in other comprehensive income, except for translation differences arising on foreign currency debt securities, which are recognised in income. On maturity or sale, net gains and losses previously deferred in accumulated other comprehensive income are recognised in income.

Interest income on debt securities is recognised in income using the effective interest method. Dividends on equity securities are recognised in income when receivable.

### **Cash and cash equivalents**

Cash and cash equivalents comprise cash at bank and in hand, including offsetting bank overdrafts, short-term bank deposits, money market funds, reverse repos and similar instruments that have a maturity of three months or less at the date of purchase.

### **Trade receivables**

Trade receivables are recognised initially at fair value based on amounts exchanged and subsequently at amortised cost less any impairment.

### **Significant estimate**

Receivables from governments may be large and subject to disputes. Recoverability is subject to uncertainty as to the settlement of amounts including tax, royalty, cost recovery and associated interest. Information about government receivables is presented in Note 11.

### **Financial liabilities**

Debt and trade payables are recognised initially at fair value based on amounts exchanged, net of transaction costs, and subsequently at amortised cost except for fixed rate debt subject to fair value hedging which is remeasured for the hedged risk (see below). Interest expense on debt is accounted for using the effective interest method and, other than interest capitalised, is recognised in income.

### **Derivative contracts and hedges**

Derivative contracts are used in the management of interest rate risk, foreign exchange risk and commodity price risk, and in the management of foreign currency cash balances. These contracts are recognised at fair value.

Certain derivative contracts qualify and are designated either as a "fair value" hedge of the change in fair value of a recognised asset or liability or an unrecognised firm commitment or as a "cash flow" hedge of the change in cash flows to be received or paid relating to a recognised asset or liability or a highly probable forecast transaction.

A change in the fair value of a hedging instrument designated as a fair value hedge is recognised in income, together with the consequential adjustment to the carrying amount of the hedged item. The effective portion of a change in fair value of a derivative contract designated as a cash flow hedge is recognised in other comprehensive income until the hedged transaction occurs; any ineffective portion is recognised in income. Where the hedged item is a non-financial asset or liability, the amount in accumulated other comprehensive income is transferred to the initial carrying amount of the asset or liability (reclassified to the balance sheet); for other hedged items, the amount in accumulated other comprehensive income is reclassified to income when the hedged transaction affects income.

The effective portion of a change due to retranslation at quarter-end exchange rates in the carrying amount of debt and the principal amount of derivative contracts used to hedge net investments in foreign operations is recognised in other comprehensive income until the related investment is sold or liquidated; any ineffective portion is recognised in income.

All relationships between hedging instruments and hedged items are documented, as well as risk management objectives and strategies for undertaking hedge transactions. The effectiveness of hedges is also continually assessed and hedge accounting is discontinued when a hedge ceases to be highly effective.

Gains and losses on derivative contracts not qualifying and designated as hedges, including forward sale and purchase contracts for commodities in trading operations that may be settled by the physical delivery or receipt of the commodity, are recognised in income.

Unless designated as hedging instruments, contracts to sell or purchase non-financial items that can be settled net as if the contracts were financial instruments and that do not meet expected own use requirements (typically, forward sale and purchase contracts for commodities in trading operations), and contracts that are or contain written options, are recognised at fair value; associated gains and losses are recognised in income.

Derivatives embedded within contracts that are not already required to be recognised at fair value, and that are not closely related to the host contract in terms of economic characteristics and risks, are separated from their host contract and recognised at fair value; associated gains and losses are recognised in income.

## **FAIR VALUE MEASUREMENTS**

Fair value measurements are estimates of the amounts for which assets or liabilities could be transferred at the measurement date, based on the assumption that such transfers take place between participants in principal markets and, where applicable, taking highest and best use into account.

### **Judgements and estimates**

Where available, fair value measurements are derived from prices quoted in active markets for identical assets or liabilities. In the absence of such information, other observable inputs are used to estimate fair value. Inputs derived from external sources are corroborated or otherwise verified, as appropriate. In the absence of publicly available information, fair value is determined using estimation techniques that take into account market perspectives relevant to the asset or liability, in as far as they can reasonably be ascertained, based on predominantly unobservable inputs. For derivative contracts where publicly available information is not available, fair value estimations are generally determined using models and other valuation methods, the key inputs for which include future prices, volatility, price correlation, counterparty credit risk and market liquidity, as appropriate; for other assets and liabilities, fair value estimations are generally based on the net present value of expected future cash flows.

## **SHARE-BASED COMPENSATION PLANS**

The fair value of share-based compensation expense arising from the Performance Share Plan (PSP) and the Long-term Incentive Plan (LTIP) – Shell's main equity-settled plans – is estimated using a Monte Carlo option pricing model and is recognised in income from the date of grant over the vesting period with a corresponding increase directly in equity. The model projects and averages the results for a range of potential outcomes for the vesting conditions, the principal assumptions for which are the share price volatility and dividend yields for Shell and four of its main competitors over the last three years and the last 10 years. Prior to the adoption of the IFRS 2 amendments, changes in the fair value of share-based compensation for cash-settled plans were recognised in income with a corresponding change in liabilities.

## **SHARES HELD IN TRUST**

Shares in the Company, which are held by employee share ownership trusts and trust-like entities, are not included in assets but are reflected at cost as a deduction from equity as shares held in trust.

## **ACQUISITIONS AND SALES OF INTERESTS IN A BUSINESS**

Assets acquired and liabilities assumed when control is obtained over a business, and when an interest or an additional interest is acquired in a joint operation which is a business, are recognised at their fair value at the date of the acquisition; the amount of the purchase consideration above this value is recognised as goodwill. When control is obtained, any non-controlling interest is recognised as the proportionate share of the identifiable net assets. The

acquisition of a non-controlling interest in a subsidiary and the sale of an interest while retaining control are accounted for as transactions within equity. The difference between the purchase consideration or sale proceeds after tax and the relevant proportion of the non-controlling interest, measured by reference to the carrying amount of the interest's net assets at the date of acquisition or sale, is recognised in retained earnings as a movement in equity attributable to Royal Dutch Shell plc shareholders.

## **CONSOLIDATED STATEMENT OF INCOME PRESENTATION**

Purchases reflect all costs related to the acquisition of inventories and the effects of the changes therein, and include associated costs incurred in conversion into finished or intermediate products. Production and manufacturing expenses are the costs of operating, maintaining and managing production and manufacturing assets. Selling, distribution and administrative expenses include direct and indirect costs of marketing and selling products.

## **3 CHANGES TO IFRS NOT YET ADOPTED**

IFRS 16 Leases was issued in 2016 to replace IAS 17 Leases and is required to be adopted by 2019. Under the new standard all lease contracts, with limited exceptions, are recognised in financial statements by way of right-of-use assets and corresponding lease liabilities. Shell will apply the modified retrospective approach, which means that the cumulative effect of initially applying the standard is recognised at the date of initial application and there is no restatement of comparative information. Compared with the existing accounting for operating leases, application of the standard will have a significant impact on the classification of expenditures and consequently the classification of cash flow from operating activities, cash flow from investing activities and cash flow from financing activities. It will also impact the timing of expenses recognised in the statement of income. No impact is expected in relation to lease contracts previously classified as finance leases. The adoption of the new standard at January 1, 2019, is expected to have a negligible impact on equity following the recognition of lease liabilities of approximately \$16.0 billion and additional right of use assets of approximately \$15.6 billion and reclassifications mainly related to pre-paid leases and onerous contract provisions previously recognised.

IFRS 17 Insurance contracts was issued in 2017 and will become effective for annual reporting periods beginning on or after January 1, 2021. The IFRS 17 model combines a current balance sheet measurement of insurance contracts with recognition of profit over the period that services are provided. The general model in the standard requires insurance contract liabilities to be measured using probability-weighted current estimates of future cash flows, an adjustment for risk, and a contractual service margin representing the profit expected from fulfilling the contracts. Effects of changes in the estimates of future cash flows and the risk adjustment relating to future services are recognised over the period services are provided rather than immediately in profit or loss. Shell is in the process evaluating the initial impact of this pronouncement.

## **4 SEGMENT INFORMATION**

### **General Information**

Shell is an international energy company engaged in the principal aspects of the oil and gas industry and reports its business through the segments: Integrated Gas, Upstream, Downstream, and Corporate.

The Integrated Gas segment covers liquefied natural gas activities and the conversion of natural gas into gas-to-liquids fuels and other products, as well as the New Energies portfolio. It includes natural gas exploration and extraction and the operation of the upstream and midstream infrastructure necessary to deliver gas to market. It markets and trades natural gas, LNG, electricity and carbon-emission rights and also markets and sells LNG as a fuel for heavy-duty vehicles and marine vessels.

Upstream combines the following two operating segments: 1) Upstream, which is engaged in the exploration for and extraction of crude oil, natural gas and natural gas liquids, and the marketing and transportation of oil and gas, and 2) Oil Sands, which is engaged in the extraction of bitumen from mined oil sands and conversion into synthetic crude oil. These operating segments have similar economic characteristics because their earnings are significantly dependent on crude oil and natural gas prices and production volumes.

The Downstream segment is engaged in oil products and chemicals manufacturing, marketing and trading activities, that turns crude oil and other feedstocks into a range of products which are moved and marketed around the world for domestic, industrial and transport use.

The Corporate segment covers the non-operating activities supporting Shell, comprising Shell's holdings and treasury organisation, its self-insurance activities and its headquarters and central functions.

### **Basis of Segmental Reporting**

Sales between segments are based on prices generally equivalent to commercially available prices. Third-party revenue and non-current assets information by geographical area are based on the country of operation of the group subsidiaries that report this information. Separate disclosure is provided for the UK as this is Shell's country of domicile.

Segment earnings are presented on a current cost of supplies basis (CCS earnings), which is the earnings measure used by the Chief Executive Officer for the purposes of making decisions about allocating resources and assessing performance. On this basis, the purchase price of volumes sold during the period is based on the current cost of supplies during the same period after making allowance for the tax effect. CCS earnings therefore exclude the effect of changes in the oil price on inventory carrying amounts.

Information by segment on a current cost of supplies basis is as follows:

<b>2018</b>					\$ million
	<b>Integrated Gas</b>	<b>Upstream</b>	<b>Downstream</b>	<b>Corporate</b>	<b>Total</b>
CCS earnings	11,444	6,798	7,601	(1,479)	24,364
Revenue:					
Third party	43,764	9,892	334,680	43	388,379 [A]
Inter-segment	4,853	37,841	5,358	–	–
Share of profit/(loss) of joint ventures and associates (CCS basis)	2,273	285	1,785	(222)	4,121
Interest and other income, of which:					
Interest income	–	–	–	772	772
Net gains on sale and revaluation of non-current assets and businesses	2,231	712	302	20	3,265
Depreciation, depletion and amortisation charge, of which:	4,850	13,006	4,064	215	22,135
Impairment losses	200	1,065	424	7	1,696 [B]
Impairment reversals	–	1,265	–	–	1,265 [C]
Interest expense	221	609	71	2,844	3,745
Taxation charge/(credit) (CCS basis)	2,795	8,791	1,515	(1,270)	11,831

[A] Includes \$3,348 million of revenue from sources other than from contracts with customers, which mainly comprises the impact of fair value accounting of commodity derivatives.

[B] Impairment losses comprise Property, plant and equipment (\$1,515 million) and Intangible assets (\$181 million).

[C] See Note 8.

<b>2017</b>					\$ million
	<b>Integrated Gas</b>	<b>Upstream</b>	<b>Downstream</b>	<b>Corporate</b>	<b>Total</b>
CCS earnings	5,078	1,551	8,258	(2,416)	12,471
Revenue:					
Third party	32,674	7,723	264,731	51	305,179
Inter-segment	3,978	32,469	4,248	–	–
Share of profit/(loss) of joint ventures and associates (CCS basis)	1,714	623	1,956	(129)	4,164
Interest and other income, of which:					
Interest income	–	–	–	677	677
Net gains on sale and revaluation of non-current assets and businesses	301	1,189	136	14	1,640
Depreciation, depletion and amortisation charge, of which:	4,965	17,303	3,877	78	26,223
Impairment losses	302	4,118	385	–	4,805 [A]
Impairment reversals	10	605	–	–	615 [B]
Interest expense	248	744	109	2,941	4,042
Taxation charge/(credit) (CCS basis)	790	2,409	1,783	(636)	4,346

[A] Impairment losses comprise Property, plant and equipment (\$4,572 million) and Intangible assets (\$233 million).

[B] See Note 8.

<b>2016</b>					\$ million
	<b>Integrated Gas</b>	<b>Upstream</b>	<b>Downstream</b>	<b>Corporate</b>	<b>Total</b>
CCS earnings	2,529	(3,674)	6,588	(1,751)	3,692
Revenue:					
Third party	25,282	6,412	201,823	74	233,591
Inter-segment	3,908	26,524	1,727	—	
Share of profit/(loss) of joint ventures and associates (CCS basis)	1,116	222	2,244	(182)	3,400
Interest and other income, of which:	765	839	851	442	2,897
Interest income	—	—	—	451	451
Net gains on sale and revaluation of non-current assets and businesses	507	867	765	2	2,141
Depreciation, depletion and amortisation charge, of which:	4,509	16,779	3,681	24	24,993
Impairment losses	72	1,274	588	6	1,940 [A]
Impairment reversals	—	—	38	—	38 [B]
Interest expense	247	852	91	2,013	3,203
Taxation charge/(credit) (CCS basis)	1,254	(938)	1,008	(839)	485

[A] Impairment losses comprise Property, plant and equipment (\$1,931 million) and Intangible assets (\$9 million).

[B] See Note 8.

#### Reconciliation of CCS earnings to income for the period

	<b>2018</b>	<b>2017</b>	<b>2016</b>
CCS earnings	24,364	12,471	3,692
Current cost of supplies adjustment:			
Purchases	(559)	1,252	1,284
Taxation	116	(349)	(344)
Share of profit of joint ventures and associates	(15)	61	145
	(458)	964	1,085
Income for the period	23,906	13,435	4,777

Information by geographical area is as follows:

<b>2018</b>					\$ million
	<b>Europe</b>	<b>Asia, Oceania, Africa</b>	<b>USA</b>	<b>Other Americas</b>	<b>Total</b>
Third-party revenue, by origin	118,960 [A]	153,716 [B]	89,876	25,827	388,379
Intangible assets, property, plant and equipment, joint ventures and associates at December 31	38,617 [C]	117,127	59,625	56,721	272,090

[A] Includes \$54,659 million that originated from the UK.

[B] Includes \$89,811 million that originated from Singapore.

[C] Includes \$21,863 million located in the UK.

<b>2017</b>					\$ million
	<b>Europe</b>	<b>Asia, Oceania, Africa</b>	<b>USA</b>	<b>Other Americas</b>	<b>Total</b>
Third-party revenue, by origin	100,609 [A]	114,683 [B]	66,854	23,033	305,179
Intangible assets, property, plant and equipment, joint ventures and associates at December 31	41,416 [C] [D]	122,345	55,898 [D]	58,828	278,487

[A] Includes \$49,370 million that originated from the UK.

[B] Includes \$62,046 million that originated from Singapore.

[C] Includes \$22,734 million located in the UK.

[D] The USA geographical allocation has increased by \$1,604 million with a corresponding decrease in Europe.

<b>2016</b>	\$ million				
	<b>Europe</b>	<b>Asia, Oceania, Africa</b>	<b>USA</b>	<b>Other Americas</b>	<b>Total</b>
Third-party revenue, by origin	81,573[A]	87,635[B]	44,615	19,768	233,591
Intangible assets, property, plant and equipment, joint ventures and associates at December 31	42,265[C] [D]	121,618	62,066[D]	67,371	293,320

[A] Includes \$38,490 million that originated from the UK.

[B] Includes \$42,533 million that originated from Singapore.

[C] Includes \$24,015 million located in the UK.

[D] The USA geographical allocation has increased by \$1,636 million with a corresponding decrease in Europe.

## 5 INTEREST AND OTHER INCOME

	\$ million		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
Interest income	772	677	451
Dividend income (from investments in equity securities)	104	375	264
Net gains on sale and revaluation of non-current assets and businesses	3,265	1,640	2,141
Net foreign exchange (losses)/gains on financing activities	(174)	(453)	343
Other	104	227	(302)
<b>Total</b>	<b>4,071</b>	<b>2,466</b>	<b>2,897</b>

In 2018, net gains on sale of non-current assets and businesses arose mainly in respect of gains on the sale of Integrated Gas assets in Thailand, Malaysia, Oman and New Zealand, as well as Upstream assets in Iraq and Malaysia and a Downstream divestment in Argentina partially offset by a charge related to the disposal of our Upstream assets in Ireland.

In 2017, net gains on sale of non-current assets and businesses arose mainly in respect of gains on the sale of Upstream assets in the UK and the USA as well as Downstream assets in Australia and Saudi Arabia, partly offset by a loss on the Motiva transaction. Net foreign exchange losses on financing activities in 2017 includes a charge of \$545 million from the release of cumulative currency translation differences following the restructuring of funding for our North America businesses.

In 2016, net gains on sale of non-current assets and businesses arose mainly in respect of Upstream assets in North America and Downstream assets in Denmark and Japan. In addition, in respect of a decrease in Shell's interest in Woodside Petroleum Limited, a revaluation gain of \$293 million was recognised and a gain of \$358 million on the related release of cumulative currency translation differences was recognised in net foreign exchange gains on financing activities. Other mainly relates to the write down of an investment in securities.

Other net foreign exchange losses of \$210 million in 2018 (2017: \$47 million; 2016: \$49 million) were included in purchases.

## 6 INTEREST EXPENSE

	\$ million		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
Interest incurred and similar charges	3,550	3,448	2,732
Less: interest capitalised	(876)	(622)	(725)
Other net losses on fair value hedges of debt	169	114	4
Accretion expense	902	1,102	1,192
<b>Total</b>	<b>3,745</b>	<b>4,042</b>	<b>3,203</b>

The rate applied in determining the amount of interest capitalised in 2018 was 4% (2017: 3%; 2016: 3%).

## 7 INTANGIBLE ASSETS

2018		\$ million			
		Goodwill	LNG off-take and sales contracts	Other	Total
Cost					
At January 1		14,154	10,429	6,106	30,689
Additions		331	–	659	990
Sales, retirements and other movements		(75)	(64)	(253)	(392)
Currency translation differences		(72)	–	(120)	(192)
At December 31		14,338	10,365	6,392	31,095
Depreciation, depletion and amortisation, including impairments					
At January 1		492	2,432	3,585	6,509
Charge for the year		173	925	370	1,468
Sales, retirements and other movements		(21)	(64)	(275)	(360)
Currency translation differences		(22)	–	(86)	(108)
At December 31		622	3,293	3,594	7,509
Carrying amount at December 31		13,716	7,072	2,798	23,586
2017		\$ million			
		Goodwill	LNG off-take and sales contracts	Other	Total
Cost					
At January 1		13,592	10,429	5,085	29,106
Additions		784	–	786	1,570
Sales, retirements and other movements		(261)	–	37	(224)
Currency translation differences		39	–	198	237
At December 31		14,154	10,429	6,106	30,689
Depreciation, depletion and amortisation, including impairments					
At January 1		605	1,475	3,059	5,139
Charge for the year		–	957	612	1,569
Sales, retirements and other movements		(136)	–	(241)	(377)
Currency translation differences		23	–	155	178
At December 31		492	2,432	3,585	6,509
Carrying amount at December 31		13,662	7,997	2,521	24,180

Goodwill at December 31, 2018, principally related to the acquisition of BG Group plc (BG) in 2016, allocated to Integrated Gas (\$4,897 million) and Upstream (\$6,013 million) at the operating segment level, and to Pennzoil-Quaker State Company (\$1,609 million), a lubricants business in the Downstream segment based largely in North America. Information on annual impairment testing is included in Note 8.

## 8 PROPERTY, PLANT AND EQUIPMENT

2018		\$ million			
	Exploration and production		Manufacturing, supply and distribution	Other	Total
	Exploration and evaluation	Production			
Cost					
At January 1	22,510	292,256	86,948	22,355	424,069
Additions	3,514	12,596	6,438	1,594	24,142
Sales, retirements and other movements	(4,443)	(19,643)	(667)	(814)	(25,567)
Currency translation differences	(400)	(4,828)	(1,484)	(1,095)	(7,807)
At December 31	21,181	280,381	91,235	22,040	414,837
Depreciation, depletion and amortisation, including impairments					
At January 1	5,060	137,525	44,483	10,621	197,689
Charge for the year	(979) [A]	16,551	4,000	1,095	20,667
Sales, retirements and other movements	(608)	(19,631)	(1,353)	(756)	(22,348)
Currency translation differences	(186)	(2,753)	(912)	(495)	(4,346)
At December 31	3,287	131,692	46,218	10,465	191,662
Carrying amount at December 31	17,894	148,689	45,017	11,575	223,175

[A] Includes an impairment reversal for assets in North America.

2017		\$ million			
	Exploration and production		Manufacturing, supply and distribution	Other	Total
	Exploration and evaluation	Production			
Cost					
At January 1	25,376	302,532	77,286	20,063	425,257
Additions	2,319	15,347	8,148	1,352	27,166
Sales, retirements and other movements	(5,651) [A]	(33,133) [A]	(1,427)	(655)	(40,866)
Currency translation differences	466	7,510	2,941	1,595	12,512
At December 31	22,510	292,256	86,948	22,355	424,069
Depreciation, depletion and amortisation, including impairments					
At January 1	6,363	133,600	39,673	9,523	189,159
Charge for the year	778	19,155	3,705	1,016	24,654
Sales, retirements and other movements	(2,300)	(19,615)	(763)	(701)	(23,379)
Currency translation differences	219	4,385	1,868	783	7,255
At December 31	5,060	137,525	44,483	10,621	197,689
Carrying amount at December 31	17,450	154,731	42,465	11,734	226,380

[A] \$1,065 million has been reclassified from Exploration and evaluation to Production.

Sales, retirements and other movements in 2018 include sales of interests in Thailand, Ireland, Argentina and Norway. In Thailand, Shell sold its 22.22% interest in the Bangkok field and adjoining acreage offshore Thailand. In Ireland, Shell sold its 45% interest in the Corrib gas venture. The Buenos Aires Refinery was sold as part of the Argentina Downstream business together with other businesses, as well as the supply and distribution activities. In Norway, Shell sold its 44.56% operated interest in the Draugen field and 12% non-operated interest in the Gjøa field.

The carrying amount at December 31, 2018, included \$33,451 million (2017: \$42,121 million) of assets under construction. This amount excludes exploration and evaluation assets. The carrying amount at December 31, 2018, also included \$705 million of assets classified as held for sale (2017: \$986 million).

The carrying amount of exploration and production assets at December 31, 2018, included rights and concessions in respect of proved and unproved properties of \$15,860 million (2017: \$14,839 million). Exploration and evaluation assets principally comprise rights and concessions in respect of unproved properties and capitalised exploration drilling costs.

The carrying amount of assets at December 31, 2018, for which an alternative reserves base was applied in the calculation of the depreciation charge (see Note 2), was \$5,838 million (2017: \$18,115 million). If no alternative reserves base had been used, the pre-tax depreciation charge for the year ended December 31, 2018, would have been \$1,003 million higher (2017: \$5,558 million, 2016: \$9,181 million).

Contractual commitments for the purchase of property, plant and equipment at December 31, 2018, amounted to \$4,783 million (2017: \$4,504 million). In addition, Shell has other commitments for future expenditure that, when incurred, are also expected to be recognised as additions to property, plant and equipment, such as the majority of operating lease payments in respect of drilling and ancillary equipment (see Note 14).

<b>Carrying amount of property, plant and equipment held under finance leases [A]</b>	\$ million	
	Dec 31, 2018	Dec 31, 2017
Exploration and production	6,299	8,399
Manufacturing, supply and distribution	3,149	3,151
Other	200	272
<b>Total</b>	<b>9,648</b>	<b>11,822</b>

[A] See Note 14.

<b>Impairments</b>	\$ million		
	2018	2017	2016
Impairment losses [A]			
Exploration and production	1,066	4,187	1,324
Manufacturing, supply and distribution	441	376	567
Other	8	9	40
<b>Total</b>	<b>1,515</b>	<b>4,572</b>	<b>1,931</b>
Impairment reversals [A]			
Exploration and production	1,265	615	–
Manufacturing, supply and distribution	–	–	36
Other	–	–	2
<b>Total</b>	<b>1,265</b>	<b>615</b>	<b>38</b>

[A] See Note 4.

Impairment losses in 2018 were mainly in Upstream, and principally related to the disposal of Shell's interests in Norway and Ireland and related to assets in the Gulf of Mexico. Impairment reversals were mainly related to assets in North America. Impairment losses in 2017 were mainly in Upstream, and principally related to the disposal of interests in Canada and interests in Ireland classified as held for sale. Impairment losses in 2016 were mainly triggered by asset performance, disposals and project cancellations. They related primarily in Upstream to shale and deep-water properties in North and South America and in Downstream to disposals and assets held for sale in the refining portfolio.

For impairment testing purposes, the respective carrying amounts of property, plant and equipment and intangible assets were compared with their value in use. Cash flow projections used in the determination of value in use were made using management's forecasts of commodity prices, market supply and demand, product margins and expected production volumes (see Note 2). These cash flows were adjusted for the risks specific to the assets, and therefore these risks were not included in the determination of the discount rate applied. The nominal pre-tax rate applied in 2018 was 6% (2017: 6%; 2016: 6%).

Oil and gas price assumptions applied for impairment testing are reviewed and, where necessary, adjusted on a periodic basis. Reviews include comparison with available market data and forecasts that reflect developments in demand such as global economic growth, technology efficiency, policy

measures and, in supply, consideration of investment and resource potential, cost of development of new supply, and behaviour of major resource holders. The near-term commodity price assumptions applied in impairment testing in 2018 were as follows:

#### **Commodity price assumptions [A]**

	2019	2020	2021
Brent crude oil (\$/b)	65	65	70
Henry Hub natural gas (\$/MMBtu)	3.25	3.50	3.50

[A] Money of the day.

For periods after 2021, the real terms long-term price assumptions applied were \$70 per barrel (/b) (2017: \$70/b after 2020) for Brent crude oil and \$3.50 per million British thermal units (/MMBtu) (2017: \$3.50/MMBtu after 2020) for Henry Hub natural gas.

#### **Capitalised exploration drilling costs**

	2018	2017	\$ million 2016
At January 1	6,981	7,910	7,835
Additions pending determination of proved reserves	2,588	1,708	1,762
Amounts charged to expense	(449)	(897)	(834)
Reclassifications to productive wells on determination of proved reserves	(2,461)	(1,894) [A]	(1,187)
Other movements	(30)	154	334
At December 31	6,629	6,981 [A]	7,910

[A] \$912 million of capitalised exploration drilling costs has been reclassified from Exploration and evaluation to Production.

	Projects		Wells	
	Number	\$ million	Number	\$ million
Between 1 and 5 years	44	3,645	180	2,670
Between 6 and 10 years	12	1,059	143	1,766
Between 11 and 15 years	4	238	16	441
Between 16 and 20 years	—	—	3	65
Total	60	4,942	342	4,942

Exploration drilling costs capitalised for periods greater than one year at December 31, 2018, analysed according to the most recent year of activity, are presented in the table above. They comprise \$1,342 million relating to 17 projects where drilling activities were under way or firmly planned for the future and \$3,600 million relating to 43 projects awaiting development concepts.

#### **9 JOINT VENTURES AND ASSOCIATES**

	Shell share of comprehensive income of joint ventures and associates								
	2018			2017			2016		
	Joint ventures	Associates	Total	Joint ventures	Associates	Total	Joint ventures	Associates	Total
Income for the period	1,307	2,799	4,106	2,102	2,123	4,225	2,332	1,213	3,545
Other comprehensive income/(loss) for the period	172	11	183	164	6	170	78	(106)	(28)
Comprehensive income for the period	1,479	2,810	4,289	2,266	2,129	4,395	2,410	1,107	3,517

#### **Carrying amount of interests in joint ventures and associates**

	\$ million					
	Dec 31, 2018			Dec 31, 2017		
	Joint ventures	Associates	Total	Joint ventures	Associates	Total
Net assets	14,263	11,066	25,329	15,052	12,875	27,927

<b>Transactions with joint ventures and associates</b>			\$ million
	2018	2017	2016
Sales and charges to joint ventures and associates	8,270	13,121	24,214
Purchases and charges from joint ventures and associates	11,212	10,680	13,859

These transactions principally comprise sales and purchases of goods and services in the ordinary course of business. Related balances outstanding at December 31, 2018, and 2017, are presented in Notes 11 and 15.

<b>Other arrangements in respect of joint ventures and associates</b>		\$ million
	Dec 31, 2018	Dec 31, 2017
Commitments to make purchases from joint ventures and associates [A]	1,254	1,371
Commitments to provide debt or equity funding to joint ventures and associates	638	1,216

[A] Commitments to make purchases from joint ventures and associates mainly relate to contracts associated with raw materials and transportation capacity.

## 10 INVESTMENTS IN SECURITIES

<b>Investment in securities</b>		\$ million
	Dec 31, 2018	Dec 31, 2017
Equity securities:		
Equity securities at fair value through other comprehensive income	1,823	5,976
Debt securities:		
Debt securities at amortised cost	1,823	
Debt securities at fair value through other comprehensive income	1,251	1,246
Debt securities at fair value through profit and loss	8	
Total	3,074	7,222
At fair value		
Measured by reference to prices in active markets for identical assets	1,873	5,776
Measured using predominantly unobservable inputs	1,193	1,268
Total	3,066	7,044
At cost	8	178
Total	3,074	7,222

Equity securities at December 31, 2018, principally comprised interests below 5%, in various investments. Shell's 8% share in Canadian Natural Resources Limited and 15% interest in Malaysia LNG Tiga Sendirian Berhad were disposed of in 2018. Their carrying amounts at December 31, 2017, were \$3,506 million and \$722 million respectively. Debt securities principally comprised a portfolio required to be held by Shell's internal insurance entities as security for their activities.

<b>Investments in securities measured using predominantly unobservable inputs [A]</b>		\$ million
	2018	2017
At January 1	1,268	1,233
Gains/(losses) recognised in other comprehensive income	212	(108)
Other movements	(287) [B]	143
At December 31	1,193	1,268

[A] Based on expected dividend flows, adjusted for country and other risks as appropriate and discounted to their present value.

[B] Other movements mainly relates to the disposal of the interest in Malaysia LNG Tiga Sendirian Berhad, partly offset by investments made in securities during 2018.

## 11 TRADE AND OTHER RECEIVABLES

	Dec 31, 2018		\$ million	
	Current	Non-current	Dec 31, 2017	Non-current
Trade receivables	27,541	—	30,721	—
Other receivables	8,543	4,823	9,036	5,525
Amounts due from joint ventures and associates	992	1,183	868	1,327
Prepayments and deferred charges	5,355	1,820	3,940	1,623
Total	42,431	7,826	44,565	8,475

The fair value of financial assets included above approximates the carrying amount and was determined from predominantly unobservable inputs.

Other receivables at December 31, 2018, include receivables from certain governments in their capacity as joint arrangement partners, of \$1,449 million (2017: \$2,265 million), after provisions for impairments, that are overdue in part or in full. Recoverability and timing thereof is subject to uncertainty, however, the ultimate risk of default on the carrying amount is considered to be low. Other receivables also include income tax (see Note 16) and other tax receivables.

Provisions for impairments deducted from trade and other receivables amounted to \$790 million at December 31, 2018 (2017: \$881 million).

	Allowance for expected credit losses - trade receivables				\$ million
	Not overdue	Overdue 1-30 days	Overdue 31-180 days	Overdue more than 180 days	
Expected loss rate	0.0014% - 0.0799%	0.0393% - 1.548%	0.1752% - 14.8524%	0.7592% - 28.037%	
Gross carrying amount	25,835	892	541	539	27,807
Loss allowance provision	(2)	(2)	(7)	(12)	(23)
Net carrying amount at December 31, 2018	25,833	890	534	527	27,784
Net carrying amount at December 31, 2017	28,719	1,154	480	368	30,721

The Company uses a provision matrix to calculate expected credit losses (ECLs) for trade receivables. The provision matrix is initially based on the Company's historical observed default rates. The Company will calibrate the matrix to adjust the historical credit loss experience with forward-looking information.

A loss allowance provision of \$243 million was established, in addition to all other impairments to trade receivables as at December 31, 2018, that are outside of the provision matrix calculations.

## 12 INVENTORIES

	Dec 31, 2018		\$ million
		Dec 31, 2017	
Oil, gas and chemicals	19,516	22,962	
Materials	1,601	2,261	
Total	21,117	25,223	

Inventories at December 31, 2018, include write-downs to net realisable value of \$1,473 million (2017: \$253 million).

## 13 CASH AND CASH EQUIVALENTS

	\$ million	Dec 31, 2018	Dec 31, 2017
Cash		4,034	4,672
Short-term bank deposits		3,655	3,996
Money market funds, reverse repos and other cash equivalents		19,052	11,644
Total		26,741	20,312

Included in cash and cash equivalents at December 31, 2018, were amounts totalling \$257 million (2017: \$120 million) subject to currency controls or other legal restrictions. Information about credit risk is presented in Note 19.

## 14 DEBT AND LEASE ARRANGEMENTS

### DEBT

Debt	\$ million			Dec 31, 2017	
	Dec 31, 2018	Debt (excluding finance lease liabilities)	Finance lease liabilities	Total	
Short-term debt	693	—	693	1,211	1,211
Long-term debt due within 1 year	8,419	1,022	9,441	9,500	10,584
Current debt	9,112	1,022	10,134	10,711	11,795
Non-current debt	53,686	13,004	66,690	59,430	73,870
Total	62,798	14,026	76,824	70,141	85,665

Net debt	\$ million				
	Current debt	Non-current debt	Derivative financial instruments [A]	Cash and cash equivalents (see Note 13)	Net debt [A]
At January 1, 2018	(11,795)	(73,870)	(591)	20,312	(65,944)
Cash flow	10,392	(2,418)	446	6,878	15,298
Finance lease additions	(51)	(652)			(703)
Other movements	(8,939)	9,270	(261)	—	70
Currency translation differences and foreign exchange gains/(losses)	259	980	(939)	(449)	(149)
At December 31, 2018	(10,134)	(66,690)	(1,345)	26,741	(51,428)
At January 1, 2017	(9,484)	(82,992)	(4,045)	19,130	(77,391)
Cash flow	11,457	(113)	485	535	12,364
Finance lease additions	(56)	(1,772)			(1,828)
Other movements	(13,232)	13,749	(272)	—	245
Currency translation differences and foreign exchange gains/(losses)	(480)	(2,742)	3,241	647	666
At December 31, 2017	(11,795)	(73,870)	(591)	20,312	(65,944)

[A] With effect from 2018, the net debt calculation includes the fair value of derivative financial instruments used to hedge foreign exchange and interest rate risks relating to debt and associated collateral balances. Derivative financial instruments at December 31, 2018, includes \$72 million representing collateral on debt-related derivatives. Prior year comparatives have been revised to reflect the change in the net debt calculation.

Management's financial strategy is to manage Shell's assets and liabilities with the aim that, across the business cycle, "cash in" at least equals "cash out" while maintaining a strong balance sheet.

Gearing, defined as net debt (total debt less cash and cash equivalents) as a percentage of total capital (net debt plus total equity), is a key measure of Shell's capital structure. Across the business cycle, management aims to manage gearing within a range of 0-30%. At December 31, 2018, gearing was 20.3% (2017: 25.0%, as revised).

<b>Gearing</b>	\$ million, except where indicated	
	Dec 31, 2018	Dec 31, 2017
Net debt	51,428	65,944 [A]
Total equity	202,534	197,812
Total capital	253,962	263,756 [A]
Gearing	20.3%	25.0% [A]

[A] As revised, following the revision of the net debt calculation from 2018.

Management's priorities for applying Shell's cash are the servicing and reduction of debt commitments, payment of dividends, followed by a balance of capital investment and share buybacks. Management's policy is to grow the dollar dividend through time, in line with its view of Shell's underlying earnings and cash flow.

Shell has access to international debt capital markets via two commercial paper (CP) programmes, a Euro medium-term note (EMTN) programme and a US universal shelf (US shelf) registration. Issuances under the CP programmes are supported by a committed credit facility and cash.

<b>Borrowing facilities and amounts undrawn</b>	\$ million			
	Facility		Amount undrawn	
	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
CP programmes	20,000	20,000	20,000	19,659
EMTN programme	unlimited	unlimited	N/A	N/A
US shelf registration	unlimited	unlimited	N/A	N/A
Committed credit facility	8,840	8,500	8,840	8,500

Under the CP programmes, Shell can issue debt of up to \$10 billion with maturities not exceeding 270 days and \$10 billion with maturities not exceeding 397 days. The EMTN programme is updated each year, most recently in August 2018. No debt was issued under this programme in 2018 (2017: \$nil issued). The US shelf registration provides Shell with the flexibility to issue debt securities, ordinary shares, preferred shares and warrants. The registration is updated every three years and was last updated in December 2017. During 2018, debt totalling \$3 billion (2017: nil) was issued under the registration. The committed credit facility is available at pre-agreed margins and expires in 2020. The terms and availability are not conditional on Shell's financial ratios or its financial credit ratings.

In addition, other subsidiaries have access to undrawn short-term bank facilities totalling \$3,035 million at December 31, 2018 (2017: \$3,409 million).

Interest rate swaps have been entered into against certain fixed rate debt affecting the effective interest rate on these balances (see Note 19).

The following tables compare contractual cash flows for debt excluding finance lease liabilities at December 31, with the carrying amount in the Consolidated Balance Sheet. Contractual amounts reflect the effects of changes in foreign exchange rates; differences from carrying amounts reflect the effects of discounting, premiums and, where hedge accounting is applied, fair value adjustments. Interest is estimated assuming interest rates applicable to variable rate debt remain constant and there is no change in aggregate principal amounts of debt other than repayment at scheduled maturity, as reflected in the table.

	Contractual payments							\$ million	
	Less than 1 year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	5 years and later	Total	Difference from carrying amount	Carrying amount
Bonds	8,163	5,900	4,993	4,458	4,312	33,162	60,988	181	61,169
Bank and other borrowings	945	39	209	50	27	359	1,629	—	1,629
Total (excluding interest)	9,108	5,939	5,202	4,508	4,339	33,521	62,617	181	62,798
Interest	1,780	1,555	1,426	1,319	1,244	14,406	21,730		

**2017**

\$ million

	Contractual payments							Difference from carrying amount	Carrying amount
	Less than 1 year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	5 years and later	Total		
Commercial paper	341	—	—	—	—	—	341	5	346
Bonds	8,989	8,306	5,900	5,047	4,620	35,037	67,899	131	68,030
Bank and other borrowings	1,321	43	127	56	180	36	1,763	2	1,765
Total (excluding interest)	10,651	8,349	6,027	5,103	4,800	35,073	70,003	138	70,141
Interest	1,957	1,688	1,457	1,328	1,221	15,293	22,944		

The fair value of debt excluding finance lease liabilities at December 31, 2018, was \$64,708 million (2017: \$74,650 million), mainly determined from the prices quoted for those securities.

## LEASE ARRANGEMENTS

Finance lease liabilities mainly relate to contracts in Upstream and Integrated Gas for floating production, storage and offloading units, subsea equipment and power generation. Finance lease liabilities are secured on the leased assets. Operating lease contracts are, in Upstream and Integrated Gas, principally for drilling and ancillary equipment, service vessels, LNG vessels and land and buildings; in Downstream, principally for tankers, storage capacity and retail sites; and in Corporate, principally for land and buildings.

The future minimum lease payments for finance and operating leases and the present value of future minimum finance lease payments at December 31, by payment date are as follows:

**2018**

\$ million

	Future minimum lease payments	Finance leases		Operating leases Future minimum lease payments [A]
		Interest	Present value of future minimum lease payments	
Less than 1 year	2,061	1,039	1,022	4,784
Between 1 and 5 years	7,508	3,391	4,117	11,575
5 years and later	13,370	4,483	8,887	7,860
Total	22,939	8,913	14,026	24,219

[A] Includes \$5,348 million in respect of drilling and ancillary equipment.

**2017**

\$ million

	Future minimum lease payments	Finance leases		Operating leases Future minimum lease payments [A] [B]
		Interest	Present value of future minimum lease payments	
Less than 1 year	2,274	1,190	1,084	4,909
Between 1 and 5 years	8,246	3,887	4,359	12,415
5 years and later	15,043	4,962	10,081	7,961
Total	25,563	10,039	15,524	25,285

[A] Includes \$6,473 million in respect of drilling and ancillary equipment.

[B] Revised following a reassessment of contracts.

Future minimum lease payments at December 31, 2018 are stated before deduction of amounts expected to be received under non-cancellable sub-leases of \$273 million (2017: \$336 million) in respect of finance leases and \$507 million (2017: \$300 million) in respect of operating leases.

Operating lease expense in 2018 was \$4,354 million (2017: \$4,822 million; 2016: \$5,063 million).

## 15 TRADE AND OTHER PAYABLES

	Dec 31, 2018		\$ million Dec 31, 2017	
	Current	Non-current	Current	Non-current
Trade payables	30,351	—	33,196	—
Other payables	5,597	2,413	5,767	3,090
Amounts due to joint ventures and associates	2,851	33	2,021	29
Accruals and deferred income	10,089	289	10,426	328
Total	48,888	2,735	51,410	3,447

The fair value of financial liabilities included above approximates the carrying amount and was determined from predominantly unobservable inputs.

Other payables include amounts due to joint arrangement partners and in respect of other project-related items.

Information about offsetting, collateral and liquidity risk is presented in Note 19.

## 16 TAXATION

Taxation charge	2018	2017	\$ million 2016
Current tax:			
Charge in respect of current period	10,415	7,204	3,936
Adjustments in respect of prior periods	60	(613)	(1,205)
Total	10,475	6,591	2,731
Deferred tax:			
Relating to the origination and reversal of temporary differences, tax losses and credits	1,438	(4,102)	(2,688)
Relating to changes in tax rates and legislation	(157)	2,004 [A]	(200)
Adjustments in respect of prior periods	(41)	202	986
Total	1,240	(1,896)	(1,902)
Total taxation charge	11,715	4,695	829

[A] Mainly in respect of the US Tax Cuts and Jobs Act (the Act).

Adjustments in respect of prior periods relate to events in the current period and reflect the effects of changes in rules, facts or other factors compared with those used in establishing the current tax position or deferred tax balance in prior periods.

<b>Reconciliation of applicable tax charge/(credit) at statutory tax rates to taxation charge</b>		\$ million	
		2018	2017
			2016
Income before taxation		35,621	18,130
Less: share of profit of joint ventures and associates		(4,106)	(4,225)
Income before taxation and share of profit of joint ventures and associates		31,515	13,905
Applicable tax charge/(credit) at statutory tax rates		11,444	4,532
Adjustments in respect of prior periods		19	(411)
Tax effects of:			
Income not subject to tax at statutory rates		(1,783)	(1,852)
Expenses not deductible for tax purposes		1,379	2,423
(Recognition)/derecognition of deferred tax assets		(381)	(957)
Deductible items not expensed		(371)	(584)
Taxable income not recognised		312	251
Changes in tax rates and legislation		(157)	2,004
Other		1,253	(711)
Taxation charge		11,715	4,695
			829

The weighted average of statutory tax rates was 36% in 2018 (2017: 33%; 2016: (17)%). Compared to 2017, the increase in the rate reflects a higher proportion of earnings in the Upstream segment, subject to relatively higher tax rates than earnings in Downstream and Integrated Gas. The negative rate in 2016 (tax credit on pre-tax income) was mainly due to losses incurred in jurisdictions with a higher weighted average statutory tax rate than jurisdictions in which profits were made.

Other tax-reconciling items include \$819 million relating to the impact of movements in the Brazilian real, Australian dollar and Argentinian peso on deferred tax positions (2017: (\$585) million, 2016: (\$607) million).

<b>Taxes payable</b>		\$ million	
		Dec 31, 2018	Dec 31, 2017
Income taxes		3,990	4,062
Sales taxes, excise duties and similar levies		3,507	3,188
Total		7,497	7,250

Included in other receivables at December 31, 2018 (see Note 11), was income tax receivable of \$1,042 million (2017: \$933 million).

<b>2018 - Deferred tax</b>		\$ million					
<b>Deferred tax asset</b>		Decommissioning and other provisions	Property, plant and equipment	Tax losses and credits carried forward	Retirement benefits	Other	Total
At January 1, 2018		6,182	3,379	13,684	3,868	4,144	31,257
(Charge)/credit to income		166	345	(553)	14	119	91
Currency translation differences		(177)	(32)	(462)	(93)	(42)	(806)
Other		(269)	26	(502)	(479)	12	(1,212)
At December 31, 2018		5,902	3,718	12,167	3,310	4,233	29,330
<b>Deferred tax liability</b>							
At January 1, 2018		–	(26,904)	–	(742)	(2,827)	(30,473)
(Charge)/credit to income		–	(1,751)	–	180	240	(1,331)
Currency translation differences		–	409	–	24	36	469
Other		–	475	–	(1,136)	(74)	(735)
At December 31, 2018		–	(27,771)	–	(1,674)	(2,625)	(32,070)
<b>Net deferred tax liability at December 31, 2018</b>							(2,740)
<b>Deferred tax asset/liability as presented in the balance sheet at December 31, 2018</b>							
Deferred tax asset							12,097
Deferred tax liability							(14,837)
<b>2017 - Deferred tax</b>		\$ million					
<b>Deferred tax asset</b>		Decommissioning and other provisions	Property, plant and equipment	Tax losses and credits carried forward	Retirement benefits	Other [A]	Total
At January 1, 2017		7,733	3,510	16,600	5,053	4,374	37,270
(Charge)/credit to income		(1,853)	189	(2,732)	(493)	(265)	(5,154)
Currency translation differences		269	49	554	216	78	1,166
Other		33	(369)	(738)	(908)	(43)	(2,025)
At December 31, 2017		6,182	3,379	13,684	3,868	4,144	31,257
<b>Deferred tax liability</b>							
At January 1, 2017		–	(33,963)	–	(582)	(3,574)	(38,119)
(Charge)/credit to income		–	6,437	–	(129)	742	7,050
Currency translation differences		–	(711)	–	(63)	(70)	(844)
Other		–	1,333	–	32	75	1,440
At December 31, 2017		–	(26,904)	–	(742)	(2,827)	(30,473)
<b>Net deferred tax asset at December 31, 2017</b>							784
<b>Deferred tax asset/liability as presented in the balance sheet at December 31, 2017</b>							
Deferred tax asset							13,791
Deferred tax liability							(13,007)

[A] Reclassified from the Other category to Tax losses carried forward to align with current year presentation.

The presentation in the balance sheet takes into consideration the offsetting of deferred tax assets and deferred tax liabilities within the same tax jurisdiction, where this is permitted. The overall deferred tax position in a particular tax jurisdiction determines if a deferred tax balance related to that jurisdiction is presented within deferred tax assets or deferred tax liabilities.

Other movements in deferred tax assets and liabilities principally relate to acquisitions, sales of non-current assets and businesses, and amounts recognised in other comprehensive income, which in 2017 included amounts in respect of the Act.

The amount of deferred tax assets dependent on future taxable profits not arising from the reversal of existing deferred tax liabilities, and which relate to tax jurisdictions, where Shell has suffered a loss in the current or preceding year, was \$9,979 million at December 31, 2018 (2017: \$12,452 million). It is considered probable based on business forecasts that such profits will be available.

Unrecognised taxable temporary differences associated with undistributed retained earnings of investments in subsidiaries, joint ventures and associates amounted to \$3,951 million (2017: \$3,746 million).

Unrecognised deductible temporary differences, unused tax losses and credits carried forward amounted to \$34,910 million at December 31, 2018 (2017: \$34,773 million) including amounts of \$27,604 million (2017: \$28,016 million) that are subject to time limits for utilisation of five years or later, or are not time limited.

## 17 RETIREMENT BENEFITS

Retirement benefits are provided through a number of funded and unfunded defined benefit plans and defined contribution plans, the most significant of which are in the Netherlands, UK and USA. Benefits comprise principally pensions; retirement healthcare and life insurance are also provided in certain countries.

<b>Retirement benefit expense</b>	\$ million	2018	2017	2016
Defined benefit plans:				
Current service cost, net of plan participants' contributions	1,494	1,500	1,527	
Interest expense on obligations	2,282	2,309	2,643	
Interest income on plan assets	(2,087)	(2,019)	(2,358)	
Other	(221)	(404)	(116)	
Total	1,468	1,386	1,696	
Defined contribution plans	410	429	485	
<b>Total retirement benefit expense</b>	<b>1,878</b>	<b>1,815</b>	<b>2,181</b>	

Retirement benefit expense is presented principally within production and manufacturing expenses and selling, distribution and administrative expenses in the Consolidated Statement of Income. Interest income on plan assets is calculated using the same rate as that applied to the related defined benefit obligations for each plan to determine interest expense.

<b>Remeasurements</b>	\$ million	2018	2017	2016
Actuarial gains/(losses) on obligations:				
Due to changes in financial assumptions [A]	8,186	(4,495)	(11,391)	
Due to experience adjustments [B]	(268)	37	642	
Due to changes in demographic assumptions [C]	(459)	933	809	
Total	7,459	(3,525)	(9,940)	
Return on plan assets (shortage)/in excess of interest income	(2,312)	4,942	5,106	
Other movements	66	50	18	
<b>Total remeasurements</b>	<b>5,213</b>	<b>1,467</b>	<b>(4,816)</b>	

[A] Primarily relates to changes in the discount rate assumptions.

[B] Experience adjustments arise from differences between the actuarial assumptions made in respect of the year and actual outcomes.

[C] Primarily relates to updates in mortality assumptions.

<b>Defined benefit plans</b>	\$ million	
	Dec 31, 2018	Dec 31, 2017
Obligations	(91,856)	(104,285)
Plan assets	85,803	93,243
Net liability	(6,053)	(11,042)
Retirement benefits in the Consolidated Balance Sheet:		
Non-current assets	6,051	2,799
Non-current liabilities	(11,653)	(13,247)
Current liabilities	(451)	(594)
Total	(6,053)	(11,042)
<b>Defined benefit plan obligations</b>	\$ million, except where indicated	
	2018	2017
At January 1	104,285	94,405
Current service cost	1,491	1,550
Interest expense	2,282	2,309
Actuarial (gains)/losses	(7,459)	3,525
Benefit payments	(4,435)	(4,579)
Other movements	(360)	(949)
Currency translation differences	(3,948)	8,024
At December 31	91,856	104,285
Comprising:		
Funded pension plans	83,276	94,903
Weighted average duration	17 years	19 years
Unfunded pension plans	4,359	4,824
Weighted average duration	13 years	12 years
Other unfunded plans	4,221	4,558
Weighted average duration	12 years	13 years

<b>Defined benefit plan assets</b>	\$ million, except where indicated	
	<b>2018</b>	<b>2017</b>
At January 1	93,243	81,276
Return on plan assets (shortage)/in excess of interest income	(2,312)	4,942
Interest income	2,087	2,019
Employer contributions	763	1,804
Plan participants' contributions	47	50
Benefit payments	(4,123)	(4,294)
Other movements	(102)	(245)
Currency translation differences	(3,800)	7,691
At December 31	85,803	93,243
Comprising:		
Quoted in active markets:		
Equities	24%	32%
Debt securities	53%	45%
Real estate	1%	1%
Investment funds	0%	1%
Other	1%	1%
Other:		
Equities	8%	7%
Debt securities	3%	3%
Real estate	6%	6%
Investment funds	3%	3%
Other	0%	1%
Cash	1%	0%

Long-term investment strategies of plans are generally determined by the relevant pension plan trustees using a structured asset liability modelling approach to define the asset mix that best meets the objectives of optimising returns within agreed risk levels while maintaining adequate funding levels. The value of the plan assets was impacted by the reduced return on investments globally.

Employer contributions to defined benefit pension plans are based on actuarial valuations in accordance with local regulations and are estimated to be \$0.9 billion in 2019.

Additional contributions to the Netherlands defined benefit pension plan would be required if the 12-month rolling average local funding percentage falls below 105% for six months or more. At the most recent (2018) funding valuation the local funding percentage was above this level. There are no set minimum statutory funding requirements for the UK plans. Under an agreement with the trustee of the main UK defined benefit plan, Shell will provide additional contributions if the funding position falls below a certain level, although this is currently not anticipated. For the US plans, under the Pension Protection Act there are minimum required contribution levels; forecast contributions are expected to exceed these.

The principal assumptions applied in determining the present value of defined benefit obligations and their bases were as follows:

- rates of increase in pensionable remuneration, pensions in payment and healthcare costs: historical experience and management's long-term expectation;
- discount rates: prevailing long-term AA corporate bond yields, chosen to match the currency and duration of the relevant obligation; and
- mortality rates: published standard mortality tables for the individual countries concerned adjusted for Shell experience where statistically significant.

The weighted averages for those assumptions and related sensitivity information at December 31 are presented below. Sensitivity information indicates by how much the defined benefit obligations would increase or decrease if a given assumption were to increase or decrease with no change in other assumptions.

	\$ million, except where indicated				
				<b>Effect of using alternative assumptions</b>	
	<b>Assumptions used</b>		<b>Range of assumptions</b>	<b>Increase/(decrease) in defined benefit obligations</b>	
	2018	2017		2018	2017
Rate of increase in pensionable remuneration	4.1%	4.7%	-1% to +1%	(1,576) to 1,819	(2,150) to 2,782
Rate of increase in pensions in payment	1.8%	1.9%	-1% to +1%	(8,304) to 10,104	(10,120) to 12,662
Rate of increase in healthcare costs	6.3%	6.6%	-1% to +1%	(410) to 496	(451) to 551
Discount rate for pension plans	2.9%	2.5%	-1% to +1%	15,606 to (12,078)	19,042 to (14,567)
Discount rate for healthcare plans	4.2%	3.5%	-1% to +1%	536 to (436)	599 to (483)
Expected age at death for persons aged 60:					
Men	87 years	87 years	-1 year to +1 year	(1,538) to 1,583	(1,906) to 2,022
Women	89 years	89 years	-1 year to +1 year	(1,436) to 1,476	(1,720) to 1,828

## 18 DECOMMISSIONING AND OTHER PROVISIONS

	Decommissioning and restoration	Legal	Environmental	Redundancy	Other	\$ million Total
At January 1, 2018						
Current	817	423	287	758	1,180	3,465
Non-current	19,767	1,095	1,218	560	2,326	24,966
	20,584	1,518	1,505	1,318	3,506	28,431
Additions	418	196	191	535	1,070	2,410
Amounts charged against provisions	(497)	(200)	(212)	(504)	(887)	(2,300)
Accretion expense	755	17	17	15	48	852
Disposals	(1,781) [A]	(14)	(11)	(3)	(49)	(1,858)
Remeasurements and other movements	(1,065)	(47)	(130)	(367)	(122)	(1,731)
Currency translation differences	(481)	(10)	(22)	(35)	(64)	(612)
	(2,651)	(58)	(167)	(359)	(4)	(3,239)
At December 31, 2018						
Current	876	213	264	491	1,815	3,659
Non-current	17,057	1,247	1,074	468	1,687	21,533
	17,933	1,460	1,338	959	3,502	25,192
At January 1, 2017						
Current	797	500	296	831	1,360	3,784
Non-current	24,368	1,066	1,186	564	2,434	29,618
	25,165	1,566	1,482	1,395	3,794	33,402
Additions	1,168	390	496	756	988	3,798
Amounts charged against provisions	(491)	(327)	(173)	(618)	(1,207)	(2,816)
Accretion expense	897	61	20	13	47	1,038
Disposals	(2,807)	(2)	(4)	(18)	(71)	(2,902)
Remeasurements and other movements	(4,245)	(190)	(352)	(301)	(178)	(5,266)
Currency translation differences	897	20	36	91	133	1,177
	(4,581)	(48)	23	(77)	(288)	(4,971)
At December 31, 2017						
Current	817	423	287	758	1,180	3,465
Non-current	19,767	1,095	1,218	560	2,326	24,966
	20,584	1,518	1,505	1,318	3,506	28,431

[A] Mainly related to disposal of interests in New Zealand and Thailand.

The amount and timing of settlement in respect of these provisions are uncertain and dependent on various factors that are not always within management's control. The discount rate applied at December 31, 2018 was 4% (2017: 4%).

Reviews of estimated future decommissioning and restoration costs and the discount rate applied are carried out annually. In 2018, there was a decrease of \$982 million (2017: \$3,980 million) in the provision resulting from changes in cost estimates, reported within remeasurements and other movements.

Of the decommissioning and restoration provision at December 31, 2018, an estimated \$3,490 million is expected to be utilised between one to five years, \$2,173 million within six to 10 years, and the remainder in later periods.

Other provisions include amounts recognised in respect of employee benefits and onerous contracts.

## **19 FINANCIAL INSTRUMENTS**

Financial instruments in the Consolidated Balance Sheet includes investments in securities (see Note 10), cash and cash equivalents (see Note 13), debt (see Note 14) and derivative contracts.

### **RISKS**

In the normal course of business, financial instruments of various kinds are used for the purposes of managing exposure to interest rate, foreign exchange and commodity price movements.

Treasury standards are applicable to all subsidiaries and each subsidiary is required to adopt a treasury policy consistent with these standards. These policies cover: financing structure; interest rate and foreign exchange risk management; insurance; counterparty risk management; and use of derivative contracts. Wherever possible, treasury operations are carried out through specialist regional organisations without removing from each subsidiary the responsibility to formulate and implement appropriate treasury policies.

Apart from forward foreign exchange contracts to meet known commitments, the use of derivative contracts by most subsidiaries is not permitted by their treasury policy.

Other than in exceptional cases, the use of external derivative contracts is confined to specialist trading and central treasury organisations that have appropriate skills, experience, supervision, control and reporting systems.

Shell's operations expose it to market, credit and liquidity risk, as described below.

#### **Market risk**

Market risk is the possibility that changes in interest rates, foreign exchange rates or the prices of crude oil, natural gas, LNG, refined products, chemical feedstocks, power and carbon-emission rights will adversely affect the value of assets, liabilities or expected future cash flows.

#### **Interest rate risk**

Most debt is raised from central borrowing programmes. Shell's policy continues to be to have debt principally denominated in dollars and to maintain a largely floating interest rate exposure profile; however, Shell has issued a significant amount of fixed rate debt in recent years, taking advantage of historically low interest rates available in US debt markets. As a result, a substantial portion of the debt portfolio at December 31, 2018, is at fixed rates and this reduces Shell's exposure to the dollar LIBOR interest rate.

The financing of most subsidiaries is structured on a floating-rate basis and, except in special cases, further interest rate risk management is discouraged.

On the basis of the floating rate net debt position at December 31, 2018, (both issued and hedged), and assuming other factors (principally foreign exchange rates and commodity prices) remained constant and that no further interest rate management action was taken, an increase in interest rates of 1% would have decreased 2018 income before taxation by \$37 million (2017: \$174 million, based on the floating rate position at December 31, 2017).

The carrying amounts and maturities of debt and borrowing facilities are presented in Note 14. Interest expense is presented in Note 6.

#### **Foreign exchange risk**

Many of the markets in which Shell operates are priced, directly or indirectly, in dollars. As a result, the functional currency of most Integrated Gas and Upstream entities and those with significant cross-border business is the dollar. For Downstream entities, the functional currency is typically the local currency. Consequently, Shell is exposed to varying levels of foreign exchange risk when an entity enters into transactions that are not denominated in its functional currency, when foreign currency monetary assets and liabilities are translated at the balance sheet date and as a result of holding net investments in operations that are not dollar-functional. Each entity is required to adopt treasury policies that are designed to measure and manage its foreign exchange exposures by reference to its functional currency.

Foreign exchange gains and losses arise in the normal course of business from the recognition of receivables and payables and other monetary items in currencies other than an entity's functional currency. Foreign exchange risk may also arise in connection with capital expenditure. For major projects, an assessment is made at the final investment decision stage whether to hedge any resulting exposure.

Assuming other factors (principally interest rates and commodity prices) remained constant and that no further foreign exchange risk management action were taken, a 10% appreciation against the dollar at December 31 of the main currencies to which Shell is exposed would have the following effects:

	\$ million			
	Increase/(decrease)		Increase in net assets	
	in income before taxation		2018	2017
10% appreciation against the dollar of:				
Canadian dollar	(40)	(43)	1,245	1,111
Euro	65	130	1,190	1,086
Australian dollar	(109)	(24)	835	786
Sterling	(46)	(77)	779	632

The above sensitivity information was calculated by reference to carrying amounts of assets and liabilities at December 31 only. The effect on income before taxation arises in connection with monetary balances denominated in currencies other than an entity's functional currency; the effect on net assets arises principally from the translation of assets and liabilities of entities that are not dollar-functional.

Foreign exchange gains and losses included in income are presented in Note 5.

#### Commodity price risk

Certain subsidiaries have a mandate to trade crude oil, natural gas, LNG, refined products, chemical feedstocks, power and carbon-emission rights, and to use commodity derivative contracts (forwards, futures, swaps and options) as a means of managing price and timing risks arising from this trading activity. In effecting these transactions, the entities concerned operate within procedures and policies designed to ensure that risks, including those relating to the default of counterparties, are managed within authorised limits.

Risk management systems are used for recording and valuing instruments. Commodity price risk exposure is monitored, and the acceptable level of exposure determined, by market risk committees. There is regular reviewing of mandated trading limits by senior management, daily monitoring of market risk exposure using value-at-risk (VAR) techniques, daily monitoring of trading positions against limits, and marking-to-fair value of trading exposures with a department independent of traders reviewing the market values applied. Although trading losses can and do occur, the nature of the trading portfolio and its management are considered adequate mitigants against the risk of significant losses.

VAR techniques based on variance/covariance or Monte Carlo simulation models are used to make a statistical assessment of the market risk arising from possible future changes in market values over a 24-hour period and within a 95% confidence level. The calculation of potential changes in fair value takes into account positions, the history of price movements and the correlation of these price movements. Models are regularly reviewed against actual fair value movements to ensure integrity is maintained. The VAR year-end positions in respect of commodities traded in active markets, which are presented in the table below, are calculated on a diversified basis in order to reflect the effect of offsetting risk within combined portfolios.

Value-at-risk (pre-tax)	\$ million	
	Dec 31, 2018	Dec 31, 2017
Global oil	28	25
North America gas and power	11	11
Europe gas and power	3	3
Carbon-emission rights	2	1

#### Credit risk

Policies are in place to ensure that sales of products are made to customers with appropriate creditworthiness. These policies include detailed credit analysis and monitoring of trading partners against counterparty credit limits. Credit information is regularly shared between business and finance functions, with dedicated teams in place to quickly identify and respond to cases of credit deterioration. Mitigation measures are defined and implemented for high-risk business partners and customers, and include shortened payment terms, collateral or other security posting and vigorous collections. In addition, policies limit the amount of credit exposure to any individual financial institution. There are no material concentrations of credit risk, with individual customers or geographically, and there has been no significant level of counterparty default in recent years.

Surplus cash is invested in a range of short-dated, secure and liquid instruments including short-term bank deposits, money market funds, reverse repos and similar instruments. The portfolio of these investments is diversified to avoid concentrating risk in any one instrument, country or counterparty. Management

monitors the investments regularly and adjusts the investment portfolio in light of new market information where necessary to ensure credit risk is effectively diversified.

In commodity trading, counterparty credit risk is managed within a framework of credit limits with utilisation being regularly reviewed. Credit risk exposure is monitored and the acceptable level is determined by a credit committee. Credit checks are performed by a department independent of traders, and are undertaken before contractual commitment. Where appropriate, netting arrangements, credit insurance, prepayments and collateral are used to manage specific risks.

Shell routinely enters into offsetting, master netting and similar arrangements with trading and other counterparties to manage credit risk. Where there is a legally enforceable right of offset under such arrangements and Shell has the intention to settle on a net basis or realise the asset and settle the liability simultaneously, the net asset or liability is recognised in the Consolidated Balance Sheet, otherwise assets and liabilities are presented gross. These amounts, as presented net and gross within trade and other receivables, trade and other payables and derivative financial instruments in the Consolidated Balance Sheet at December 31, were as follows:

	\$ million					
	Gross amounts before offset	Amounts offset	Net amounts as presented	Cash collateral received/pledged	Other offsetting instruments	Net amounts
<b>2018</b>						
Assets:						
Within trade receivables	12,697	8,340	4,358	62	221	4,075
Within derivative financial instruments	12,323	6,353	5,970	437	2,653	2,880
Liabilities:						
Within trade payables	12,931	8,264	4,667	97	221	4,349
Within derivative financial instruments	12,227	5,044	7,183	1,115	2,653	3,415

	\$ million					
	Gross amounts before offset	Amounts offset	Net amounts as presented	Cash collateral received/pledged	Other offsetting instruments	Net amounts
<b>2017</b>						
Assets:						
Within trade receivables	10,642	6,486	4,156	42	51	4,063
Within derivative financial instruments	6,987	2,387	4,600	186	2,326	2,088
Liabilities:						
Within trade payables	10,442	6,486	3,956	41	51	3,864
Within derivative financial instruments	7,315	2,392	4,923	300	2,326	2,297

Amounts not offset principally relate to contracts where the intention to settle on a net basis was not clearly established at December 31.

The carrying amount of financial assets pledged as collateral for liabilities or contingent liabilities at December 31, 2018, presented within trade and other receivables, was \$3,094 million (2017: \$1,890 million). The carrying amount of collateral held at December 31, 2018, presented within trade and other payables, was \$535 million (2017: \$282 million). Collateral mainly relates to initial margins held with commodity exchanges and over-the-counter counterparty variation margins.

### Liquidity risk

Liquidity risk is the risk that suitable sources of funding for Shell's business activities may not be available. Management believes that it has access to sufficient debt funding sources (capital markets), and to undrawn committed borrowing facilities to meet foreseeable requirements. Information about borrowing facilities is presented in Note 14.

### DERIVATIVE CONTRACTS AND HEDGES

Derivative contracts are used principally as hedging instruments, however, because hedge accounting is not always applied, movements in the carrying amounts of derivative contracts that are recognised in income are not always matched in the same period by the recognition of the income effects of the related hedged items.

### Carrying amounts, maturities and hedges

The carrying amounts of derivative contracts at December 31, designated and not designated as hedging instruments for hedge accounting purposes, were as follows:

2018	\$ million						
	Assets			Liabilities			
	Designated	Not designated	Total	Designated	Not designated	Total	Net
Interest rate swaps	86	3	89	174	14	188	(99)
Forward foreign exchange contracts	–	331	331	33	264	297	34
Currency swaps and options	186	26	212	1,202	203	1,405	(1,193)
Commodity derivatives	–	6,864	6,864	–	6,637	6,637	227
Other contracts	–	271	271	–	56	56	215
Total	272	7,495	7,767	1,409	7,174	8,583	(816)

2017	\$ million						
	Assets			Liabilities			
	Designated	Not designated	Total	Designated	Not designated	Total	Net
Interest rate swaps	–	16	16	165	34	199	(183)
Forward foreign exchange contracts	22	403	425	–	591	591	(166)
Currency swaps and options	483	208	691	815	76	891	(200)
Commodity derivatives	–	4,929	4,929	–	4,428	4,428	501
Other contracts	–	162	162	–	125	125	37
Total	505	5,718	6,223	980	5,254	6,234	(11)

Net losses before tax on derivative contracts, excluding realised commodity contracts and those accounted for as hedges, were \$1,818 million in 2018 (2017: \$1,321 million losses; 2016: \$414 million gains).

Certain contracts, mainly to hedge price risk relating to forecast commodity transactions which mature in 2019-2021, were designated in cash flow hedging relationships. The net carrying amount of commodity derivative contracts designated as cash flow hedging instruments at December 31, 2018, was an asset of \$120 million (2017: \$620 million liability) (see Note 22), and was presented after the offset of related margin balances maintained with exchanges.

Certain interest rate and currency swaps were designated in fair value hedges, principally in respect of debt for which the net carrying amount of the related derivative contracts, net of accrued interest, at December 31, 2018, was a liability of \$1,242 million (2017: \$826 million).

In the course of trading operations, certain contracts are entered into for delivery of commodities that are accounted for as derivatives. The resulting price exposures are managed by entering into related derivative contracts. These contracts are managed on a fair value basis and the maximum exposure to liquidity risk is the undiscounted fair value of derivative liabilities.

For a minority of commodity derivative contracts, carrying amounts cannot be derived from quoted market prices or other observable inputs, in which case fair value is estimated using valuation techniques such as Black-Scholes, option spread models and extrapolation using quoted spreads with assumptions developed internally based on observable market activity.

Other contracts include certain contracts that are held to sell or purchase commodities and others containing embedded derivatives, which are required to be recognised at fair value because of pricing or delivery conditions, even though they were entered into to meet operational requirements. These contracts are expected to mature in 2019-2025, with certain contracts having early termination rights (for either party). Valuations are derived from quoted market prices.

The contractual maturities of derivative liabilities at December 31 compare with their carrying amounts in the Consolidated Balance Sheet as follows:

	Contractual maturities							\$ million	
	Less than 1 year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	5 years and later	Total	Difference from carrying amount [A]	Carrying amount
Interest rate swap	101	68	20	1	1	1	192	(4)	188
Forward foreign exchange contracts	177	(24)	33	(1)	(5)	(15)	165	132	297
Currency swaps and options	605	265	474	405	198	1,715	3,662	(2,257)	1,405
Commodity derivatives	4,733	978	422	213	138	382	6,866	(229)	6,637
Other contracts	58	–	–	–	–	–	58	(2)	56
<b>Total</b>	<b>5,674</b>	<b>1,287</b>	<b>949</b>	<b>618</b>	<b>332</b>	<b>2,083</b>	<b>10,943</b>	<b>(2,360)</b>	<b>8,583</b>

[A] Mainly related to the effect of discounting.

	Contractual maturities							\$ million	
	Less than 1 year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	5 years and later	Total	Difference from carrying amount [A]	Carrying amount
Interest rate swap	59	67	56	18	1	3	204	(5)	199
Forward foreign exchange contracts	315	37	14	3	2	(39)	332	259	591
Currency swaps and options	541	343	140	304	194	879	2,401	(1,510)	891
Commodity derivatives	3,002	754	305	122	74	263	4,520	(92)	4,428
Other contracts	87	48	–	–	–	–	135	(10)	125
<b>Total</b>	<b>4,004</b>	<b>1,249</b>	<b>515</b>	<b>447</b>	<b>271</b>	<b>1,106</b>	<b>7,592</b>	<b>(1,358)</b>	<b>6,234</b>

[A] Mainly related to the effect of discounting.

#### Fair value measurements

The net carrying amounts of derivative contracts held at December 31, categorised according to the predominant source and nature of inputs used in determining the fair value of each contract, were as follows:

	Prices in active markets for identical assets/liabilities	Other observable inputs	Unobservable inputs	\$ million	
				Total	
Interest rate swaps	–	(99)	–	–	(99)
Forward foreign exchange contracts	–	34	–	–	34
Currency swaps and options	–	(1,193)	–	–	(1,193)
Commodity derivatives	(52)	431	(152)	227	
Other contracts	–	90	125	215	
<b>Total</b>	<b>(52)</b>	<b>(737)</b>	<b>(27)</b>	<b>(816)</b>	

**2017**

\$ million

	Prices in active markets for identical assets/liabilities	Other observable inputs	Unobservable inputs	Total
Interest rate swaps	–	(183)	–	(183)
Forward foreign exchange contracts	–	(166)	–	(166)
Currency swaps and options	–	(200)	–	(200)
Commodity derivatives	36	302	163	501
Other contracts	–	(97)	134	37
Total	36	(344)	297	(11)

**Net carrying amounts of derivative contracts measured using predominantly unobservable inputs**

\$ million

	2018	2017 [A]
At January 1	297	468
Net (losses)/gains recognised in revenue	(258)	372
Purchases	461	252
Sales	(540)	(562)
Recategorisations (net)	18	(248)
Currency translation differences	(5)	15
At December 31	(27)	297

[A] Following a review of fair-valued commodity swaps, options, futures and forwards unobservable inputs in 2018, the movement of net carrying amounts of derivative contracts measured using predominantly unobservable inputs was revised. This revision did not result in a change in the opening and closing balances. The revised values for 2017 were provided for comparability purposes.

Included in net losses recognised in revenue in 2018 were unrealised net losses totalling \$36 million relating to assets and liabilities held at December 31, 2018 (2017: \$39 million gains).

**20 SHARE CAPITAL****Issued and fully paid ordinary shares of €0.07 each [A]**

	Number of shares		Nominal value (\$ million)		
	A	B	A	B	Total
At January 1, 2018	4,597,136,050	3,745,486,731	387	309	696
Repurchase of shares	(125,246,754)	–	(11)	–	(11)
At December 31, 2018	4,471,889,296	3,745,486,731	376	309	685
At January 1, 2017	4,428,903,813	3,745,486,731	374	309	683
Scrip dividends	168,232,237	–	13	–	13
At December 31, 2017	4,597,136,050	3,745,486,731	387	309	696

[A] Share capital at December 31, 2018, and 2017, also included 50,000 issued and fully paid sterling deferred shares of £1 each.

At the Company's Annual General Meeting (AGM) on May 22, 2018, the Board was authorised to allot ordinary shares in the Company, and to grant rights to subscribe for or to convert any security into ordinary shares in the Company, up to an aggregate nominal amount of €194 million (representing 2,771 million ordinary shares of €0.07 each), and to list such shares or rights on any stock exchange. This authority expires at the earlier of the close of business on August 22, 2019, and the end of the AGM to be held in 2019, unless previously renewed, revoked or varied by the Company in a general meeting.

At the May 22, 2018 AGM, shareholders granted the Company the authority to repurchase up to 10% of its issued ordinary shares (excluding any treasury shares), renewing the authority granted by shareholders at previous AGMs. The authority will expire at the earlier of the close of business on August 22, 2019, and the end of the Company's AGM to be held in 2019. Ordinary shares purchased by the Company pursuant to this authority will either be cancelled or held in treasury. Treasury shares are shares in the Company that are owned by the Company itself. The minimum price, exclusive of expenses, which may be paid for an ordinary share is €0.07. The maximum price, exclusive of expenses, which may be paid for an ordinary share is the higher of: (i) an amount equal to 5% above the average market value for an ordinary share for the five business days immediately preceding the date of the purchase; and (ii) the higher of the price of the last independent trade and the highest current independent bid on the trading markets where the purchase is carried out.

## 21 SHARE-BASED COMPENSATION PLANS AND SHARES HELD IN TRUST

Share-based compensation expense		2018	2017	\$ million 2016
Equity-settled		531	422	488
Cash-settled		– [A]	380	205
Total		531	802	693

[A] As from 2018 components of share-based payments (related to tax) that were previously classified as cash-settled are classified as equity-settled [see Note 2]. On an incidental basis awards may be cash settled, where an equity settlement is not possible under local regulations.

The principal share-based employee compensation plans are the PSP and LTIP. Awards of shares and American Depository Shares (ADSs) of the Company under the PSP and LTIP are granted upon certain conditions to eligible employees. The actual amount of shares that may vest ranges from 0% to 200% of the awards, depending on the outcomes of prescribed performance conditions over a three-year period beginning on January 1 of the award year. Shares and ADSs vest for nil consideration.

### Share awards under the PSP and LTIP

	Number of A shares (million)	Number of B shares (million)	Number of A ADSs (million)	remaining contractual life (years)	Weighted average
At January 1, 2018	33	12	9	—	0.9
Granted	10	4	3	—	—
Vested	(12)	(4)	(4)	—	—
Forfeited	(1)	—	—	—	—
At December 31, 2018	30	12	8	—	1.0
At January 1, 2017	36	12	10	—	1.0
Granted	10	4	3	—	—
Vested	(12)	(4)	(4)	—	—
Forfeited	(1)	—	—	—	—
At December 31, 2017	33	12	9	—	0.9

Other plans offer employees opportunities to acquire shares and ADSs of the Company or receive cash benefits measured by reference to the Company's share price.

Shell employee share ownership trusts and trust-like entities purchase the Company's shares in the open market to meet delivery commitments under employee share plans. At December 31, 2018, they held 19.6 million A shares (2017: 15.2 million), 7.1 million B shares (2017: 2.9 million) and 5.9 million A ADSs (2017: 5.9 million).

## 22 OTHER RESERVES

Other reserves attributable to Royal Dutch Shell plc shareholders						\$ million
	Merger reserve	Share premium reserve	Capital redemption reserve	Share plan reserve	Accumulated other comprehensive income	Total
<b>At January 1, 2018 (as previously reported)</b>	37,298	154	84	1,440	(22,044)	16,932
Impact of IFRS 9 implementation	–	–	–	–	(138)	(138)
<b>At January 1, 2018 (as revised)</b>	37,298	154	84	1,440	(22,182)	16,794
Other comprehensive income attributable to Royal Dutch Shell plc shareholders	–	–	–	–	1,123	1,123
Transfer from other comprehensive income	–	–	–	–	(971)	(971)
Repurchase of shares	–	–	11	–	–	11
Share-based compensation	–	–	–	(342) [A] [B]	–	(342)
At December 31, 2018	37,298	154	95	1,098	(22,030)	16,615
At January 1, 2017	37,311	154	84	1,644	(27,895)	11,298
Other comprehensive loss attributable to Royal Dutch Shell plc shareholders	–	–	–	–	5,851	5,851
Scrip dividends	(13)	–	–	–	–	(13)
Share-based compensation	–	–	–	(204)	–	(204)
At December 31, 2017	37,298	154	84	1,440	(22,044)	16,932
At January 1, 2016	3,398	154	84	1,658	(22,480)	(17,186)
Other comprehensive loss attributable to Royal Dutch Shell plc shareholders	–	–	–	–	(5,949)	(5,949)
Scrip dividends	(17)	–	–	–	–	(17)
Shares issued	33,930	–	–	–	–	33,930
Share-based compensation	–	–	–	(14)	534	520
At December 31, 2016	37,311	154	84	1,644	(27,895)	11,298

[A] Includes a reclassification of \$503 million between the Share plan reserve and Retained earnings, which relates to the unwinding of expired share options.

[B] The amendments to IFRS 2 *Share-based payment* became effective January 1, 2018. Following adoption of the amendments, components of share-based payments (related to tax) that were previously classified as cash-settled are now classified as equity-settled. This resulted in an increase of \$172 million in the share plan reserve and a net increase of \$125 million in retained earnings.

The merger reserve and share premium reserve were established as a consequence of the Company becoming the single parent company of Royal Dutch Petroleum Company and The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited, in 2005. The increase in the merger reserve in 2016 in respect of the shares issued represents the difference between the fair value and the nominal value of the shares issued for the acquisition of BG. The capital redemption reserve was established in connection with repurchases of shares of the Company. The share plan reserve is in respect of equity-settled share-based compensation plans (see Note 21). The movement represents the net of the charge for the year and the release as a result of vested awards and is after deduction of tax of \$71 million in 2018 (2017: \$11 million; 2016: \$nil).

Accumulated other comprehensive income comprises the following:

<b>Accumulated other comprehensive income attributable to Royal Dutch Shell plc shareholders</b>							\$ million	
	Currency translation differences	Unrealised gains/(losses) on securities	Debt instruments remeasurements	Cash flow hedging gains/(losses)	Deferred cost of hedging	Retirement benefits remeasurements	Equity instrument remeasurements	Total
<b>At January 1, 2018 (as previously reported)</b>	(8,735)	1,969	–	(633)	–	(14,645)	–	(22,044)
Impact of IFRS 9 implementation	–	(1,969)	(6)	6	(144)	–	1,975	(138)
<b>At January 1, 2018 (as revised)</b>	(8,735)	–	(6)	(627)	(144)	(14,645)	1,975	(22,182)
Recognised in other comprehensive income	(3,794)	–	(15)	50	(362)	5,213	(147)	945
Reclassified to income	651	–	–	722	95	–	–	1,468
Reclassified to the balance sheet	–	–	–	(30)	–	–	–	(30)
Reclassified to retained earnings	–	–	–	–	–	137	(1,108)	(971)
Tax on amounts recognised/reclassified	(29)	–	–	(12)	58	(1,625)	(6)	(1,614)
Total, net of tax	(3,172)	–	(15)	730	(209)	3,725	(1,261)	(202)
Share of joint ventures and associates	(25)	–	–	14	–	1	193	183
Other comprehensive income/(loss) for the period	(3,197)	–	(15)	744	(209)	3,726	(1,068)	(19)
Less: non-controlling interest	185	–	–	–	–	(13)	(1)	171
Attributable to Royal Dutch Shell plc shareholders	(3,012)	–	(15)	744	(209)	3,713	(1,069)	152
At December 31, 2018	(11,747)	–	(21)	117 [B]	(353)	(10,932)	906	(22,030)
At January 1, 2017	(13,831)	1,321	–	(144)	–	(15,241)	–	(27,895)
Recognised in other comprehensive income	4,513	796	–	(467)	–	1,467	–	6,309
Reclassified to income	610	(211)	–	(87)	–	–	–	312
Reclassified to the balance sheet	–	–	–	(18)	–	–	–	(18)
Tax on amounts recognised/reclassified	33	8	–	20	–	(863)	–	(802)
Total, net of tax	5,156	593	–	(552)	–	604	–	5,801
Share of joint ventures and associates	53	55	–	63	–	(1)	–	170
Other comprehensive loss for the period	5,209	648	–	(489)	–	603	–	5,971
Less: non-controlling interest	(113)	–	–	–	–	(7)	–	(120)
Attributable to Royal Dutch Shell plc shareholders	5,096	648	–	(489)	–	596	–	5,851
At December 31, 2017	(8,735)	1,969	–	(633)[B]	–	(14,645)	–	(22,044)
At January 1, 2016	(12,940)	1,409	–	473	–	(11,422)	–	(22,480)
Recognised in other comprehensive income	(1,023)[A]	(204)	–	(727)	–	(4,816)	–	(6,770)
Reclassified to income	(277)	1	–	(939)	–	–	–	(1,215)
Reclassified to the balance sheet	–	–	–	1,044 [C]	–	–	–	1,044
Tax on amounts recognised/reclassified	(21)	(11)	–	5	–	999	–	972
Total, net of tax	(1,321)	(214)	–	(617)	–	(3,817)	–	(5,969)
Share of joint ventures and associates	(154)	126	–	–	–	–	–	(28)
Other comprehensive income/(loss) for the period	(1,475)	(88)	–	(617)	–	(3,817)	–	(5,997)
Less: non-controlling interest	50	–	–	–	–	(2)	–	48
Attributable to Royal Dutch Shell plc shareholders	(1,425)	(88)	–	(617)	–	(3,819)	–	(5,949)
Reclassification in respect of shares held in trust	534	–	–	–	–	–	–	534
At December 31, 2016	(13,831)	1,321	–	(144)	–	(15,241)	–	(27,895)

[A] Includes losses of \$2,024 million arising on net investment hedges.

[B] See Note 19.

[C] Mainly relating to the acquisition of BG.

## 23 DIVIDENDS

Interim dividends		\$ million	
	2018	2017	2016
A shares:			
Cash: \$1.88 per share (2017: \$1.88; 2016: \$1.88)	8,605	4,919	4,545
Scrip: none (2017: \$1.88; 2016: \$1.88 per share)	–	3,558	3,491
Total – A shares	8,605	8,477	8,036
B shares:			
Cash: \$1.88 per share (2017: \$1.88; 2016: \$1.88)	7,070	5,958	5,132
Scrip: none (2017: \$1.88; 2016: \$1.88 per share)	–	1,193	1,791
Total – B shares	7,070	7,151	6,923
Total	15,675	15,628	14,959

In addition, on January 31, 2019, the Directors announced a further interim dividend in respect of 2018 of \$0.47 per A share and \$0.47 per B share. The total dividend is estimated to be \$3,848 million and is payable on March 25, 2019, to shareholders on the register at February 15, 2018. The Scrip Dividend Programme has been cancelled with effect from the fourth quarter 2017 interim dividend.

Dividends on A shares are by default paid in euros, although holders may elect to receive dividends in sterling. Dividends on B shares are by default paid in sterling, although holders may elect to receive dividends in euros. Dividends on ADSs are paid in dollars.

## 24 EARNINGS PER SHARE

	2018	2017	2016
Income attributable to Royal Dutch Shell plc shareholders (\$ million)	23,352	12,977	4,575
Weighted average number of A and B shares used as the basis for determining:			
Basic earnings per share (million)	8,282.8	8,223.4	7,833.7
Diluted earnings per share (million)	8,348.7	8,299.0	7,891.7

Basic earnings per share are calculated by dividing the income attributable to Royal Dutch Shell plc shareholders for the year by the weighted average number of A and B shares outstanding during the year. The weighted average number of shares outstanding excludes shares held in trust.

Diluted earnings per share are based on the same income figures. The weighted average number of shares outstanding during the year is increased by dilutive shares related to share-based compensation plans.

Earnings per share are identical for A and B shares.

## 25 LEGAL PROCEEDINGS AND OTHER CONTINGENCIES

### GENERAL

In the ordinary course of business, Shell subsidiaries are subject to a number of contingencies arising from litigation and claims brought by governmental, including tax authorities, and private parties. The operations and earnings of Shell subsidiaries continue, from time to time, to be affected to varying degrees by political, legislative, fiscal and regulatory developments, including those relating to the protection of the environment and indigenous groups in the countries in which they operate. The industries in which Shell subsidiaries are engaged are also subject to physical risks of various types.

The amounts claimed in relation to such events and, if such claims against Shell were successful, the costs of implementing the remedies sought in the various cases could be substantial. Based on information available to date and taking into account that in some cases it is not practicable to estimate the possible magnitude or timing of any resultant payments, management believes that the foregoing are not expected to have a material adverse impact on Shell's Consolidated Financial Statements. However, there remains a high degree of uncertainty around these contingencies, as well as their potential effect on future operations, earnings, cash flows and Shell's financial condition.

In certain divestment transactions, liabilities related to dismantling and restoration are de-recognised upon transfer of these obligations to the buyer. For certain of these obligations Shell has issued guarantees to third parties and continues to be liable in case that the primary obligator is not able to meet its obligation. These potential obligations arising from issuance of these guarantees are assessed to be remote.

#### PESTICIDE LITIGATION

Shell Oil Company (SOC), along with another agricultural chemical pesticide manufacturer and several distributors, has been sued by public and quasi-public water purveyors alleging responsibility for groundwater contamination caused by applications of chemical pesticides. There are approximately 45 such cases currently pending. These suits assert various theories of strict liability and negligence, and seek to recover actual damages, including drinking well treatment and remediation costs. Most assert claims for punitive damages. While the Company continues to vigorously defend these lawsuits, a new environmental regulatory standard became effective in the State of California, where a majority of the suits are pending. The new standard requires public water systems state wide to perform quarterly or monthly sampling of their drinking water sources for a chemical contained in certain pesticides, beginning in January 2018. Water systems deemed out of compliance with the new five parts per trillion regulatory standard must take corrective action to resolve the exceedance or take the potable water source out of service. In response to this new regulatory standard, the Company is monitoring the sampling results to determine the number of wells potentially impacted. Based on the claims asserted and SOC's track record, with regard to amounts paid to resolve varying claims, management does not expect the outcome of these lawsuits pending at December 31, 2018, to have a material adverse impact on Shell. However, there remains a high degree of uncertainty regarding the potential outcome of some of these pending lawsuits, as well as their potential effect on future operations, earnings, cash flows and Shell's financial condition.

#### CLIMATE CHANGE LITIGATION

In the USA, 12 lawsuits have been filed by several municipalities and one state against oil and gas companies, including Royal Dutch Shell plc. The plaintiffs seek damages for claimed harm to their public and private infrastructure from rising sea levels allegedly due to climate change caused by the defendants' fossil fuel products. A similar suit has been filed by a crab fishing industry group claiming harm to their fisheries as a result of alleged ocean-related impacts of climate change. Management believes the outcome of these matters should be resolved in a manner favourable to Shell, however, there remains a high degree of uncertainty regarding the ultimate outcome of these lawsuits, as well as their potential effect on future operations, earnings, cash flows and Shell's financial condition.

#### BRAZIL TAX

Pursuant to Law 7.183/2015 issued by the State of Rio de Janeiro (RJ State) and effective March 2016, a value-added levy has been imposed on oil extraction in the RJ State. The company understands that the obligations arising from this law are not legally sustainable and Shell obtained two separate favorable injunctions suspending the enforcement of the law in March and October 2016, respectively. Both injunctions remain in effect and the matter is currently pending before the Tribunal de Justiça do Rio de Janeiro, the local RJ State Court of Appeal. In addition, and as this is an industry-wide issue, the Brazilian Association of Oil and Gas Exploration and Production Companies, of which Shell is a member of, filed a suit in February 2016 before the Supremo Tribunal Federal, the Brazilian Supreme Court, challenging the constitutionality of the law. This matter is currently pending with the Supreme Court. Should Shell be required to pay such a levy, it could result in a total liability of approximately \$3 billion as at end 2018.

#### NIGERIAN LITIGATION

Shell subsidiaries and associates operating in Nigeria are parties to various environmental and contractual disputes brought in the courts of Nigeria, England and the Netherlands. These disputes are at different stages in litigation, including at the appellate stage, where judgements have been rendered against Shell entities. If taken at face value, the aggregate amount of these judgements could be seen as material. Management, however, believes that the outcomes of these matters will ultimately be resolved in a manner favourable to Shell. However, there remains a high degree of uncertainty regarding these cases, as well as their potential effect on future operations, earnings, cash flows and Shell's financial condition.

The authorities in various countries are investigating Shell Nigeria Exploration and Production Company Ltd.'s (SNEPCO's) investment in Nigerian oil block OPL 245 and the 2011 settlement of litigation pertaining to that block with regard to potential anti-bribery, anti-corruption and anti-money laundering laws.

On January 27, 2017, the Nigeria Federal High Court issued an Interim Order of Attachment for Oil Prospecting Licence 245 (OPL 245), pending the conclusion of the investigation. SNEPCO applied for and was granted a discharge of this order on constitutional and procedural grounds. Also in Nigeria, in March 2017 criminal charges alleging official corruption and conspiracy to commit official corruption were filed against SNEPCO, one current Shell employee and third parties including ENI SpA and one of its subsidiaries. Those proceedings are ongoing. In March 2017, parties alleging to be shareholders of Malabu Oil and Gas Company Ltd. (Malabu) filed two actions to challenge the 2011 settlement and the award of OPL 245 to SNEPCO and an ENI SpA subsidiary by the Federal Government of Nigeria. Those proceedings are also ongoing. On May 8, 2018, Human Environmental Development Agenda (HEDA) sought permission from the Federal High Court of Nigeria to apply for an order to direct the Attorney General of the Federation to revoke OPL 245 on grounds that the entire Malabu transaction in relation to the OPL is unconstitutional, illegal and void as it was obtained through fraudulent and corrupt practice. On October 4, 2018, SNEPCO was joined as a defendant in the HEDA action. Those proceedings are ongoing. In March 2016, the Nigeria House of Representatives (HoR) announced it was going to conduct a third investigation into OPL 245. SNEPCO sought and was granted an interlocutory injunction preventing the HoR from investigating SNEPCO, as such an investigation was beyond the legal powers of the HoR and the matter was under judicial consideration. On July 2, 2018, the court issued a decision in favour of SNEPCO granting all the reliefs sought including a declaration that the HoR does not have powers to investigate the OPL 245 award and a perpetual injunction to restrain the HoR from continuing with the investigations or compelling SNEPCO's participation in the investigations. On December 12, 2018, the Federal Republic of Nigeria issued a claim form in the UK against RDS and six subsidiaries, ENI SpA and two of its subsidiaries, Malabu as well as two other entities for the amount of \$1,092 million plus damages for having participated in a fraudulent and corrupt scheme leading to the acquisition by Shell and ENI corporate defendants in 2011 of OPL 245.

The Shell entities have yet to be served with the proceedings. On February 14, 2017, Royal Dutch Shell plc received a notice of request for indictment from the Milan public prosecutor with respect to this matter. On December 20, 2017, Royal Dutch Shell plc along with four former Shell employees including one former executive were remanded to trial in Milan. On May 14, 2018, a trial commenced in the Court of Milan and is ongoing. On September 18, 2018, RDS was joined to the proceedings as the civilly responsible party (responsabile civile) for the damages caused by the alleged illegal acts of the four former Shell employees. Three other Shell entities (Shell UK Ltd, SPDC and SEPA) also joined the proceedings but were denied status as responsabile civile for their respective former employees at this phase of the proceedings. Based on Shell's review of the Prosecutor of Milan's file and all the information and facts currently available to Shell, management does not believe that there is a basis to convict Shell in Milan. Furthermore, management is not aware of any evidence to convict any former or current Shell employee in Milan. On September 20, 2018, a guilty judgement was filed by the Milan Judge of the Preliminary Hearing in a separate OPL 245 fast track trial of two individuals, neither of whom worked on behalf of Shell. That decision is under appeal.

In February 2019, we were informed by the Dutch Public Prosecutor's Office (DPP) that they are nearing the conclusion of their investigation and are preparing to prosecute Royal Dutch Shell plc for criminal charges directly or indirectly related to the 2011 settlement of disputes over OPL 245 in Nigeria. Investigations by authorities in other jurisdictions are ongoing.

There remains a high degree of uncertainty around the OPL 245 matters and contingencies discussed above, as well as their potential effect on future operations, earnings, cash flows and Shell's financial condition. Accordingly, at this time, it is not practicable to estimate the magnitude and timing of any possible obligations or payments. Any violation of the US Foreign Corrupt Practices Act or other relevant anti-bribery, anti-corruption or anti-money laundering legislation could have a material adverse effect on Royal Dutch Shell plc's earnings, cash flows and financial condition.

## 26 EMPLOYEES

<b>Employee costs</b>	\$ million		
	2018	2017	2016
Remuneration	10,167	10,855	11,985
Social security contributions	810	844	867
Retirement benefits (see Note 17)	1,878	1,815	2,181
Share-based compensation (see Note 21)	531	802	693
<b>Total [A]</b>	<b>13,386</b>	<b>14,316</b>	<b>15,726</b>

[A] Excludes employees seconded to joint ventures and associates.

<b>Average employee numbers</b>	Thousand		
	2018	2017 [C]	2016 [C]
Integrated Gas	8	8	9
Upstream	14	16	18
Downstream	37	40	46
<b>Corporate [A]</b>	<b>20</b>	<b>19</b>	<b>18</b>
<b>Total [B]</b>	<b>79</b>	<b>83</b>	<b>91</b>

[A] Includes all employees working in business service centres irrespective of the segment they support.

[B] Excludes employees seconded to joint ventures and associates (2018: 3,000 employees, 2017: 3,000 employees, 2016: 4,000 employees).

[C] As revised.

## 27 DIRECTORS AND SENIOR MANAGEMENT

<b>Remuneration of Directors of the Company</b>			\$ million
	2018	2017	2016
Emoluments	12	11	10
Value of released awards under long-term incentive plans	20	5	8
Employer contributions to pension plans	1	1	1

Emoluments comprise salaries and fees, annual bonuses (for the period for which performance is assessed) and other benefits. The value of released awards under long-term incentive plans for the period is in respect of the performance period ending in that year. In 2018, retirement benefits were accrued in respect of qualifying services under defined benefit plans by two Directors.

Further information on the remuneration of the Directors can be found in the Directors' Remuneration Report on pages 119-147.

<b>Directors and Senior Management expense</b>			\$ million
	2018	2017	2016
Short-term benefits	26	23	21
Retirement benefits	3	3	3
Share-based compensation	14	17	15
Termination and related amounts	–	3	4
Total	43	46	43

Directors and Senior Management comprise members of the Executive Committee and the Non-executive Directors of the Company.

Short-term benefits comprise salaries and fees, annual bonuses delivered in cash and shares (for the period for which performance is assessed), other benefits and employer social security contributions. Prior to 2017, these included the 50% of annual bonuses delivered in cash, and share-based compensation included the appropriate proportion of the deferred element (under the Deferred Bonus Plan). Following shareholder approval at the 2017 AGM, the Deferred Bonus Plan has been removed and 50% of the bonus is delivered in shares subject to a three-year holding period.

## 28 AUDITOR'S REMUNERATION

			\$ million
	2018	2017	2016
Fees in respect of the audit of the Consolidated and Parent Company Financial Statements, including audit of consolidation returns	31	27	32
Other audit fees, principally in respect of audits of accounts of subsidiaries	16	21	17
Total audit fees	47	48	49
Audit-related fees	5	4	2
Fees in respect of other non-audit services	1	1	1
Total	53	53	52

In addition, the auditor provided audit services to retirement benefit plans for employees of subsidiaries. Remuneration paid by those benefit plans amounted to \$1 million in 2018 (2017: \$1 million, 2016: \$1 million).

Classification of auditor's remuneration under US Securities and Exchange Commission rules

For US reporting purposes, the total auditor's remuneration of \$53 million (2017: \$53 million, 2016: \$52 million) is categorised as follows: audit \$50 million (2017: \$50 million, 2016: \$51 million), audit-related \$2 million (2017: \$2 million, 2016: \$1 million), and all other fees \$1 million (2017: \$1 million, 2016: nil).

# Supplementary information – oil and gas (unaudited)

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The information set out on pages 215-236 is referred to as "unaudited" as a means of clarifying that it is not covered by the audit opinion of the independent registered public accounting firm that has audited and reported on the "Consolidated Financial Statements".

## **PROVED RESERVES**

Proved reserves estimates are calculated pursuant to the US Securities and Exchange Commission (SEC) Rules and the Financial Accounting Standard Board's Topic 932. Proved reserves can be either developed or undeveloped. The definitions used are in accordance with the SEC Rule 4-10 (a) of Regulation S-X. We include proved reserves associated with future production that will be consumed in operations.

Proved reserves shown are net of any quantities of crude oil or natural gas that are expected to be (or could be) taken as royalties in kind. Proved reserves outside North America include quantities that will be settled as royalties in cash. Proved reserves include certain quantities of crude oil or natural gas that will be produced under arrangements that involve Shell subsidiaries, joint ventures and associates in risks and rewards but do not transfer title of the product to those entities.

Subsidiaries' proved reserves at December 31, 2018, were divided into 78% developed and 22% undeveloped on a barrel of oil equivalent basis. For the Shell share of joint ventures and associates, the proved reserves at December 31, 2018, were divided into 89% developed and 11% undeveloped on a barrel of oil equivalent basis.

Proved reserves are recognised under various forms of contractual agreements. Shell's proved reserves volumes at December 31, 2018, present in agreements such as production-sharing contracts (PSC), tax/variable royalty contracts or other forms of economic entitlement contracts, where the Shell share of reserves can vary with commodity prices, were 2,181 million barrels of crude oil and natural gas liquids, and 13,832 thousand million standard cubic feet (scf) of natural gas.

Proved reserves cannot be measured exactly because estimation of reserves involves subjective judgement (see "Risk factors" on page 16 and our "Proved reserves assurance process" below). These estimates remain subject to revision and are unaudited supplementary information.

## **PROVED RESERVES ASSURANCE PROCESS**

A central group of reserves experts, who on average have around 30 years' experience in the oil and gas industry, undertake the primary assurance of the proved reserves bookings. This group of experts is part of the Resources Assurance and Reporting (RAR) organisation within Shell. A Vice President with 33 years' experience in the oil and gas industry currently heads the RAR organisation. He is a member of the Society of Petroleum Engineers, Society of Petroleum Evaluation Engineers and holds a BA in mathematics from Oxford University and an MEng in Petroleum Engineering from Heriot Watt University. The RAR organisation reports directly to an Executive Vice President of Finance, who is a member of the Upstream Reserves Committee (URC). The URC is a multidisciplinary committee consisting of senior representatives from the Finance, Legal, Projects & Technology and Upstream organisations. The URC reviews and endorses all major (larger than 20 million barrels of oil equivalent) proved reserves bookings and endorses the total aggregated proved reserves. Final approval of all proved reserves bookings remains with Shell's Executive Committee, and where all proved reserves bookings are reviewed by Shell's Audit Committee. The Internal Audit function also provides secondary assurance through audits of the control framework.

## **CRUDE OIL, NATURAL GAS LIQUIDS, SYNTHETIC CRUDE OIL AND BITUMEN**

Shell subsidiaries' proved reserves of crude oil, natural gas liquids (NGLs), synthetic crude oil and bitumen at the end of the year; their share of the proved reserves of joint ventures and associates at the end of the year; and the changes in such reserves during the year are set out on pages 217-219. Significant changes in these proved reserves are discussed below, where 'revisions and reclassifications' are changes based on new information that resulted from development drilling, production history, and changes in economic factors.

### **PROVED RESERVES 2018-2017**

#### **Shell subsidiaries**

##### **Europe**

The net increase of 94 million barrels in revisions and reclassifications was mainly in the UK and Denmark.

##### **Asia**

The net increase of 227 million barrels in revisions and reclassifications was mainly in Oman and Kazakhstan. The sale of minerals in place of 52 million barrels occurred in Iraq (West Qurna) and Oman (Mukhaizna).

##### **USA**

The net increase of 81 million barrels in revisions and reclassifications was mainly in Mars and Ursa in the Gulf of Mexico. The increase of 179 million barrels in extensions and discoveries was mainly in Vito in the Gulf of Mexico and in the Permian Basin.

##### **South America**

The net increase of 139 million barrels in extensions and discoveries was in Mero (Brazil) and Vaca Muerta (Argentina).

### **PROVED RESERVES 2017-2016**

#### **Shell subsidiaries**

##### **Europe**

The net increase of 61 million barrels in revisions and reclassifications resulted from field performance studies and development activities in Denmark, Norway and the UK. The sale of minerals in place of 50 million barrels occurred in the UK.

##### **Asia**

The net increase of 153 million barrels in revisions and reclassifications was mainly in Oman and Malaysia. The increase of 95 million barrels in extensions and discoveries was in Kazakhstan and Malaysia.

##### **USA**

The net increase of 235 million barrels in revisions and reclassifications resulted from field performance studies and development activities in respect of Stones and Mars in the Gulf of Mexico, and the Permian Basin. The increase of 242 million barrels in extensions and discoveries was in the Permian Basin, and Appomattox and Vicksburg in the Gulf of Mexico.

##### **Canada**

The sale of minerals in place of 1,992 million barrels in synthetic crude oil resulted from the sale of our 60% interest in the Athabasca Oil Sands Project (AOSP) and our in-situ and undeveloped oil sands interests. The purchase of minerals in place of 664 million barrels in synthetic crude oil resulted from the separate acquisition of a 50% controlling interest in Marathon Oil Canada Corporation, which has a 20% interest in the AOSP.

#### **Shell share of joint ventures and associates**

##### **Asia**

The net increase of 76 million barrels in revisions and reclassifications was mainly in Brunei.

### Proved developed and undeveloped reserves 2018

Million barrels

	North America										South America			Total	
	USA				Canada			South America							
	Europe	Asia	Oceania	Africa	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	All products		
Shell subsidiaries															
At January 1	356	1,482	132	463	899	22	649	—	946	4,300	649	—	4,949		
Revisions and reclassifications	94	227	14	18	81	7	32	—	48	489	32	—	521		
Improved recovery	—	27	—	—	—	—	—	—	14	41	—	—	41		
Extensions and discoveries	2	3	—	—	179	6	—	—	139	329	—	—	329		
Purchases of minerals in place	—	—	—	—	—	—	—	—	3	3	—	—	3		
Sales of minerals in place	(14)	(52)	(8)	—	(2)	—	—	—	—	(76)	—	—	(76)		
Production [A]	(70)	(185)	(9)	(61)	(140)	(13)	(20)	—	(122)	(600)	(20)	—	(620)		
At December 31	368	1,502	129	420	1,017	23	661	—	1,027	4,486	661	—	5,147		
Shell share of joint ventures and associates															
At January 1	12	301	—	—	—	—	—	—	—	313	—	—	313		
Revisions and reclassifications	(2)	(2)	—	—	—	—	—	—	—	(4)	—	—	(4)		
Improved recovery	—	—	—	—	—	—	—	—	—	—	—	—	—		
Extensions and discoveries	—	18	—	—	—	—	—	—	—	18	—	—	18		
Purchases of minerals in place	—	—	—	—	—	—	—	—	—	—	—	—	—		
Sales of minerals in place	—	—	—	—	—	—	—	—	—	—	—	—	—		
Production	(1)	(37)	—	—	—	—	—	—	—	(38)	—	—	(38)		
At December 31	9	281	—	—	—	—	—	—	—	290	—	—	290		
Total	377	1,783	129	420	1,017	23	661	—	1,027	4,776	661	—	5,437		
Reserves attributable to non-controlling interest in Shell subsidiaries at December 31	—	—	—	—	—	—	331	—	—	—	331	—	331		

[A] Includes 1 million barrels consumed in operations for synthetic crude oil.

### Proved developed reserves 2018

Million barrels

	North America										South America			Total	
	USA				Canada			South America							
	Europe	Asia	Oceania	Africa	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	All products		
Shell subsidiaries															
At January 1	250	1,364	46	373	569	21	649	—	651	3,274	649	—	3,923		
At December 31	243	1,318	108	335	629	21	661	—	634	3,288	661	—	3,949		
Shell share of joint ventures and associates															
At January 1	11	253	—	—	—	—	—	—	—	264	—	—	264		
At December 31	8	251	—	—	—	—	—	—	—	259	—	—	259		

### Proved undeveloped reserves 2018

Million barrels

	North America										South America			Total	
	USA				Canada			South America							
	Europe	Asia	Oceania	Africa	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	All products		
Shell subsidiaries															
At January 1	106	118	86	90	330	1	—	—	295	1,026	—	—	1,026		
At December 31	124	185	21	85	388	2	—	—	394	1,199	—	—	1,199		
Shell share of joint ventures and associates															
At January 1	1	48	—	—	—	—	—	—	—	49	—	—	49		
At December 31	1	30	—	—	—	—	—	—	—	31	—	—	31		

<b>Proved developed and undeveloped reserves 2017</b>												Million barrels	
	Europe				North America				South America				Total
	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen					
													All products
Shell subsidiaries													
At January 1	435	1,386	128	529	491	18	2,014	2	992	3,979	2,014	2	5,995
Revisions and reclassifications	61	153	13	23	235	8	(3)	2	38	531	(3)	2	530
Improved recovery	–	35	–	–	38	–	–	–	–	73	–	–	73
Extensions and discoveries	–	95	–	–	242	7	–	–	30	374	–	–	374
Purchases of minerals in place	–	–	–	–	2	–	664	–	–	2	664	–	666
Sales of minerals in place	(50)	–	–	(14)	–	–	(1,992)	(2)	–	(64)	(1,992)	(2)	(2,058)
Production [A]	(90)	(187)	(9)	(75)	(109)	(11)	(34)	(2)	(114)	(595)	(34)	(2)	(631)
At December 31	356	1,482	132	463	899	22	649	–	946	4,300	649	–	4,949
Shell share of joint ventures and associates													
At January 1	7	256	–	–	–	–	–	–	–	263	–	–	263
Revisions and reclassifications	6	76	–	–	–	–	–	–	–	82	–	–	82
Improved recovery	–	3	–	–	–	–	–	–	–	3	–	–	3
Extensions and discoveries	–	1	–	–	–	–	–	–	–	1	–	–	1
Purchases of minerals in place	–	–	–	–	–	–	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–	–	–	–	–	–	–
Production	(1)	(35)	–	–	–	–	–	–	–	(36)	–	–	(36)
At December 31	12	301	–	–	–	–	–	–	–	313	–	–	313
Total	368	1,783	132	463	899	22	649	–	946	4,613	649	–	5,262
Reserves attributable to non-controlling interest in Shell subsidiaries at December 31	–	–	–	–	–	–	325	–	–	–	325	–	325

[A] Includes 1 million barrels consumed in operations for synthetic crude oil.

<b>Proved developed reserves 2017</b>												Million barrels	
	Europe				North America				South America				Total
	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen					
													All products
Shell subsidiaries													
At January 1	257	1,184	36	461	437	14	1,387	2	543	2,932	1,387	2	4,321
At December 31	250	1,364	46	373	569	21	649	–	651	3,274	649	–	3,923
Shell share of joint ventures and associates													
At January 1	4	215	–	–	–	–	–	–	–	219	–	–	219
At December 31	11	253	–	–	–	–	–	–	–	264	–	–	264

<b>Proved undeveloped reserves 2017</b>												Million barrels	
	Europe				North America				South America				Total
	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen					
													All products
Shell subsidiaries													
At January 1	178	202	92	68	54	4	627	–	449	1,047	627	–	1,674
At December 31	106	118	86	90	330	1	–	–	295	1,026	–	–	1,026
Shell share of joint ventures and associates													
At January 1	3	41	–	–	–	–	–	–	–	44	–	–	44
At December 31	1	48	–	–	–	–	–	–	–	49	–	–	49

### Proved developed and undeveloped reserves 2016

Million barrels

	Europe	Asia	Oceania	Africa	North America				South America				Total	
					USA				Canada		South America			
					Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	All products
Shell subsidiaries														
At January 1	417	1,286	126	579	560	22	1,941	3	56	3,046	1,941	3	4,990	
Revisions and reclassifications	24	100	9	21	17	3	33	4	86	260	33	4	297	
Improved recovery	—	22	—	—	2	—	—	—	—	24	—	—	24	
Extensions and discoveries	—	4	—	—	20	6	96	—	—	30	96	—	126	
Purchases of minerals in place	85	175	2	14	—	—	—	—	931	1,207	—	—	1,207	
Sales of minerals in place	(5)	—	—	—	(5)	(2)	—	—	—	(12)	—	—	(12)	
Production [A]	(86)	(201)	(9)	(85)	(103)	(11)	(56)	(5)	(81)	(576)	(56)	(5)	(637)	
At December 31	435	1,386	128	529	491	18	2,014	2	992	3,979	2,014	2	5,995	
Shell share of joint ventures and associates														
At January 1	11	290	12	—	—	—	—	—	—	313	—	—	313	
Revisions and reclassifications	(3)	1	(11)	—	—	—	—	—	—	(13)	—	—	(13)	
Improved recovery	—	—	—	—	—	—	—	—	—	—	—	—	—	
Extensions and discoveries	—	1	—	—	—	—	—	—	—	1	—	—	1	
Purchases of minerals in place	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sales of minerals in place	—	—	—	—	—	—	—	—	—	—	—	—	—	
Production	(1)	(36)	(1)	—	—	—	—	—	—	(38)	—	—	(38)	
At December 31	7	256	—	—	—	—	—	—	—	263	—	—	263	
Total	442	1,642	128	529	491	18	2,014	2	992	4,242	2,014	2	6,258	
Reserves attributable to non-controlling interest in Shell subsidiaries at December 31	—	—	—	4	—	—	—	—	—	4	—	—	4	

[A] Includes 2 million barrels consumed in operations for synthetic crude oil.

### Proved developed reserves 2016

Million barrels

	Europe	Asia	Oceania	Africa	North America				South America				Total	
					USA				Canada		South America			
					Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	All products
Shell subsidiaries														
At January 1	220	972	36	437	455	20	1,405	3	44	2,184	1,405	3	3,592	
At December 31	257	1,184	36	461	437	14	1,387	2	543	2,932	1,387	2	4,321	
Shell share of joint ventures and associates														
At January 1	5	204	9	—	—	—	—	—	—	218	—	—	218	
At December 31	4	215	—	—	—	—	—	—	—	219	—	—	219	

### Proved undeveloped reserves 2016

Million barrels

	Europe	Asia	Oceania	Africa	North America				South America				Total	
					USA				Canada		South America			
					Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Oil and NGL	Synthetic crude oil	Bitumen	Oil and NGL	Oil and NGL	All products
Shell subsidiaries														
At January 1	197	314	90	142	105	2	536	—	12	862	536	—	1,398	
At December 31	178	202	92	68	54	4	627	—	449	1,047	627	—	1,674	
Shell share of joint ventures and associates														
At January 1	6	86	3	—	—	—	—	—	—	95	—	—	95	
At December 31	3	41	—	—	—	—	—	—	—	44	—	—	44	

## **NATURAL GAS**

Shell subsidiaries' proved reserves of natural gas at the end of the year, their share of the proved reserves of joint ventures and associates at the end of the year, and the changes in such reserves during the year are set out on pages 222-224. Significant changes in these proved reserves are discussed below. Volumes are not adjusted to standard heat content. Apart from integrated projects, volumes of gas are reported on an "as-sold" basis. The price used to calculate future revenue and cash flows from proved gas reserves is the contract price or the 12-month average on "as-sold" volumes. Volumes associated with integrated projects are those measured at a designated transfer point between the upstream and downstream portions of the integrated project. Natural gas volumes are converted into oil equivalent using a factor of 5,800 scf per barrel.

### **PROVED RESERVES 2018-2017**

#### **Shell subsidiaries**

##### **Europe**

The net increase of 1,183 thousand million scf in revisions and reclassifications was mainly in Norway, the UK, Denmark and Germany.

##### **Asia**

The net decrease of 483 thousand million scf in revisions and reclassifications was mainly in Qatar, Malaysia and Kazakhstan. The increase of 354 thousand million scf in extensions and discoveries was in Malaysia.

##### **Oceania**

The net increase of 1,438 thousand million scf in revisions and reclassifications was mainly in the Surat Basin, Jansz-lo and Gorgon (all Australia).

##### **Africa**

The net increase of 896 thousand million scf in revisions and reclassifications was mainly in Gbaran, Assa North, Forcaddos-Yokri (Nigeria) and Sapphire (Egypt).

##### **USA**

The net decrease of 296 thousand million scf in revisions and reclassifications was mainly in Tioga. The increase of 283 thousand million scf in extensions and discoveries was mainly in the Permian Basin.

#### **Shell share of joint ventures and associates**

##### **Europe**

The net decrease of 3,653 thousand million scf in revisions and reclassifications was mainly in Groningen (the Netherlands).

Groningen: The decrease of 3,673 thousand million scf is as a result of the Dutch cabinet's announcement on March 29, 2018, about its aspiration to end Groningen production by 2030, and an agreement signed by Shell, ExxonMobil and the Dutch government in June 2018. The proved reserves are aligned with the new regulatory framework and the updated production outlook issued in November 2018 by the Dutch Ministry of Economic Affairs.

### **PROVED RESERVES 2017-2016**

#### **Shell subsidiaries**

##### **Europe**

The sale of minerals in place of 224 thousand million scf was mainly the UK fields: Elgin-Franklin, Everest, J-Area, Lomond and Erskine.

##### **Asia**

The net increase of 979 thousand million scf in revisions and reclassifications resulted from field performance updates and development activities in Kazakhstan and Malaysia. The increase of 549 thousand million scf in extensions and discoveries was mainly in China and Kazakhstan.

##### **Oceania**

The net decrease of 574 thousand million scf in revisions and reclassifications resulted from field performance updates and development activities. There was a decrease of 958 thousand million scf in the Surat Basin and an increase of 384 thousand million scf from Jansz-lo, Prelude, Gorgon (all Australia) and Maui (New Zealand). The purchases of minerals in place of 204 thousand million scf were in the Surat Basin.

##### **Africa**

The net increase of 287 thousand million scf in revisions and reclassifications resulted from field performance updates and development activities, mainly in Kolo Creek in Nigeria.

##### **USA**

The net increase of 958 thousand million scf in revisions and reclassifications resulted from field performance updates and development activities in Tioga, East Texas, North Louisiana and the Permian Basin. The increase of 1,163 thousand million scf in extensions and discoveries was mainly in Tioga, the Permian Basin, and Appomattox and Kaikias in the Gulf of Mexico.

### **Canada**

The net increase of 412 thousand million scf in revisions and reclassifications resulted from field performance studies and development activities in Groundbirch, Waterton and Fox Creek. The increase of 205 thousand million scf in extensions and discoveries was in Groundbirch and Fox Creek.

### **Shell share of joint ventures and associates**

#### **Europe**

The net decrease of 1,027 thousand million scf in revisions and reclassifications was mainly in the Netherlands, due to further reassessment of Groningen compression.

#### **Asia**

The net increase of 652 thousand million scf in revisions and reclassifications resulted from field performance studies and development activities in Brunei and Russia.

**Proved developed and undeveloped reserves 2018**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
<b>Shell subsidiaries</b>								
At January 1	3,100	11,822	7,978	2,082	2,569	1,272	1,501	30,324
Revisions and reclassifications	1,183	(483)	1,438	896	(296)	(153)	181	2,766
Improved recovery	—	—	—	—	—	—	7	7
Extensions and discoveries	3	354	—	—	283	131	65	836
Purchases of minerals in place	—	—	—	—	—	—	14	14
Sales of minerals in place	(192)	(157)	(232)	—	(32)	—	—	(613)
Production [A]	(494)	(906)	(757)	(434)	(377)	(261)	(258)	(3,487)
At December 31	3,600	10,631	8,427	2,544	2,147	989	1,509	29,847
<b>Shell share of joint ventures and associates</b>								
At January 1	5,125	4,964	19	—	—	—	—	10,108
Revisions and reclassifications	(3,653)	62	25	—	—	—	—	(3,566)
Improved recovery	—	—	—	—	—	—	—	—
Extensions and discoveries	—	5	—	—	—	—	—	5
Purchases of minerals in place	—	—	—	—	—	—	—	—
Sales of minerals in place	(37)	—	—	—	—	—	—	(37)
Production [B]	(273)	(450)	(20)	—	—	—	—	(743)
At December 31	1,163	4,581	24	—	—	—	—	5,768
<b>Total</b>	<b>4,763</b>	<b>15,212</b>	<b>8,451</b>	<b>2,544</b>	<b>2,147</b>	<b>989</b>	<b>1,509</b>	<b>35,615</b>
<b>Reserves attributable to non-controlling interest in</b>								
<b>Shell subsidiaries at December 31</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

[A] Includes 245 thousand million standard cubic feet consumed in operations.

[B] Includes 41 thousand million standard cubic feet consumed in operations.

**Proved developed reserves 2018**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
<b>Shell subsidiaries</b>								
At January 1	2,978	11,460	5,026	1,493	1,652	859	1,225	24,693
At December 31	2,658	10,092	5,820	1,573	1,706	721	1,238	23,808
<b>Shell share of joint ventures and associates</b>								
At January 1	5,055	4,275	19	—	—	—	—	9,349
At December 31	1,136	3,938	24	—	—	—	—	5,099

**Proved undeveloped reserves 2018**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
<b>Shell subsidiaries</b>								
At January 1	122	362	2,952	589	917	413	276	5,631
At December 31	942	539	2,607	971	441	268	271	6,039
<b>Shell share of joint ventures and associates</b>								
At January 1	70	689	—	—	—	—	—	759
At December 31	27	643	—	—	—	—	—	670

### Proved developed and undeveloped reserves 2017

	Europe	Asia	Oceania	Africa	USA	Canada	South America	Thousand million standard cubic feet Total
<b>Shell subsidiaries</b>								
At January 1	3,741	11,073	9,051	2,225	675	844	1,650	29,259
Revisions and reclassifications	197	979	(574)	287	958	412	45	2,304
Improved recovery	—	66	—	—	74	—	—	140
Extensions and discoveries	2	549	—	—	1,163	205	6	1,925
Purchases of minerals in place	—	—	204	—	3	43	27	277
Sales of minerals in place	(224)	—	—	(7)	(11)	(6)	—	(248)
Production [A]	(616)	(845)	(703)	(423)	(293)	(226)	(227)	(3,333)
At December 31	3,100	11,822	7,978	2,082	2,569	1,272	1,501	30,324
<b>Shell share of joint ventures and associates</b>								
At January 1	6,497	4,754	31	—	—	—	—	11,282
Revisions and reclassifications	(1,027)	652	9	—	—	—	—	(366)
Improved recovery	—	1	—	—	—	—	—	1
Extensions and discoveries	—	11	—	—	—	—	—	11
Purchases of minerals in place	—	—	—	—	—	—	—	—
Sales of minerals in place	—	—	—	—	—	—	—	—
Production [B]	(345)	(454)	(21)	—	—	—	—	(820)
At December 31	5,125	4,964	19	—	—	—	—	10,108
<b>Total</b>	<b>8,225</b>	<b>16,786</b>	<b>7,997</b>	<b>2,082</b>	<b>2,569</b>	<b>1,272</b>	<b>1,501</b>	<b>40,432</b>
Reserves attributable to non-controlling interest in								
Shell subsidiaries at December 31	—	2	—	—	—	—	—	2

[A] Includes 215 thousand million standard cubic feet consumed in operations.

[B] Includes 41 thousand million standard cubic feet consumed in operations.

### Proved developed reserves 2017

	Europe	Asia	Oceania	Africa	USA	Canada	South America	Thousand million standard cubic feet Total
<b>Shell subsidiaries</b>								
At January 1	3,437	10,569	3,966	1,618	563	458	1,172	21,783
At December 31	2,978	11,460	5,026	1,493	1,652	859	1,225	24,693
<b>Shell share of joint ventures and associates</b>								
At January 1	5,240	4,110	31	—	—	—	—	9,381
At December 31	5,055	4,275	19	—	—	—	—	9,349

### Proved undeveloped reserves 2017

	Europe	Asia	Oceania	Africa	USA	Canada	South America	Thousand million standard cubic feet Total
<b>Shell subsidiaries</b>								
At January 1	304	504	5,085	607	112	386	478	7,476
At December 31	122	362	2,952	589	917	413	276	5,631
<b>Shell share of joint ventures and associates</b>								
At January 1	1,257	644	—	—	—	—	—	1,901
At December 31	70	689	—	—	—	—	—	759

**Proved developed and undeveloped reserves 2016**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
Shell subsidiaries								
At January 1	3,848	10,692	5,411	2,236	754	955	43	23,939
Revisions and reclassifications	92	554	(177)	51	(95)	41	66	532
Improved recovery	—	10	—	—	—	—	—	10
Extensions and discoveries	4	162	—	2	200	180	3	551
Purchases of minerals in place	419	576	4,330	327	151	—	1,734	7,537
Sales of minerals in place	(7)	—	—	—	(7)	(63)	—	(77)
Production [A]	(615)	(921)	(513)	(391)	(328)	(269)	(196)	(3,233)
At December 31	3,741	11,073	9,051	2,225	675	844	1,650	29,259
Shell share of joint ventures and associates								
At January 1	7,538	5,363	535	—	—	—	—	13,436
Revisions and reclassifications	(636)	(197)	(464)	—	—	—	—	(1,297)
Improved recovery	—	—	—	—	—	—	—	—
Extensions and discoveries	—	35	—	—	—	—	—	35
Purchases of minerals in place	—	—	—	—	—	—	—	—
Sales of minerals in place	—	—	—	—	—	—	—	—
Production [B]	(405)	(447)	(40)	—	—	—	—	(892)
At December 31	6,497	4,754	31	—	—	—	—	11,282
Total	10,238	15,827	9,082	2,225	675	844	1,650	40,541
Reserves attributable to non-controlling interest in								
Shell subsidiaries at December 31	—	3	—	2	—	—	—	5

[A] Includes 197 thousand million standard cubic feet consumed in operations.

[B] Includes 44 thousand million standard cubic feet consumed in operations.

**Proved developed reserves 2016**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
Shell subsidiaries								
At January 1	3,471	9,920	1,234	1,386	572	636	37	17,256
At December 31	3,437	10,569	3,966	1,618	563	458	1,172	21,783
Shell share of joint ventures and associates								
At January 1	5,933	4,301	420	—	—	—	—	10,654
At December 31	5,240	4,110	31	—	—	—	—	9,381

**Proved undeveloped reserves 2016**

	Europe	Asia	Oceania	Africa	Thousand million standard cubic feet			
					North America	South America	Total	
Shell subsidiaries								
At January 1	377	772	4,177	850	182	319	6	6,683
At December 31	304	504	5,085	607	112	386	478	7,476
Shell share of joint ventures and associates								
At January 1	1,605	1,062	115	—	—	—	—	2,782
At December 31	1,257	644	—	—	—	—	—	1,901

## STANDARDISED MEASURE OF DISCOUNTED FUTURE CASH FLOWS

The SEC Form 20-F requires the disclosure of a standardised measure of discounted future net cash flows, relating to proved reserves quantities and based on a 12-month unweighted arithmetic average sales price, calculated on a first-day-of-the-month basis, with cost factors based on those at the end of each year, currently enacted tax rates and a 10% annual discount factor. In our view, the information so calculated does not provide a reliable measure of future cash flows from proved reserves, nor does it permit a realistic comparison to be made of one entity with another because the assumptions used cannot reflect the varying circumstances within each entity. In addition, a substantial but unknown proportion of future real cash flows from oil and gas production activities is expected to derive from reserves which have already been discovered, but which cannot yet be regarded as proved.

## STANDARDISED MEASURE OF DISCOUNTED FUTURE CASH FLOWS RELATING TO PROVED RESERVES AT DECEMBER 31

2018 - Shell subsidiaries								\$ million
	Europe	Asia	Oceania	Africa	USA	Canada	South America	Total
Future cash inflows	50,392	122,037	72,355	36,080	68,546	34,719	74,417	458,545
Future production costs	18,400	32,773	22,219	13,237	32,533	17,378	42,301	178,842
Future development costs	8,649	12,301	11,598	4,672	11,486	4,674	6,991	60,370
Future tax expenses	12,603	30,994	5,899	12,805	1,948	3,257	7,764	75,271
Future net cash flows	10,739	45,969	32,639	5,366	22,578	9,411	17,360	144,062
Effect of discounting cash flows at 10%	3,024	20,957	12,130	572	5,039	6,446	6,048	54,217
Standardised measure of discounted future net cash flows	7,715	25,012	20,509	4,794	17,539	2,964	11,312	89,845
Non-controlling interest included	-	1	-	-	-	1,638	-	1,639

2018 - Shell share of joint ventures and associates								\$ million
	Europe	Asia	Oceania	Africa	USA	Canada	South America	Total
Future cash inflows	5,260	44,327	104	-	-	-	-	49,691
Future production costs	2,712	20,886	80	-	-	-	-	23,677
Future development costs	1,083	6,726	36	-	-	-	-	7,844
Future tax expenses	1,136	7,128	1	-	-	-	-	8,265
Future net cash flows	329	9,588	(13)	-	-	-	-	9,904
Effect of discounting cash flows at 10%	(76)	2,759	(8)	-	-	-	-	2,675
Standardised measure of discounted future net cash flows	405	6,829	(5) [A]	-	-	-	-	7,229

[A] While proved reserves are economically producible at the 2018 yearly average price, the standardised measure of discounted future net cash flows was negative for those proved reserves at December 31, 2018, due to addition of overhead, tax and abandonment costs and ongoing commitments post production of proved reserves.

2017 - Shell subsidiaries								\$ million
	Europe	Asia	Oceania	Africa	USA	Canada	South America	Total
Future cash inflows	34,902	94,535	51,052	29,276	49,389	32,576	50,620	342,350
Future production costs	15,672	30,894	18,264	11,496	29,505	20,242	30,924	156,997
Future development costs	7,852	12,558	14,062	4,920	14,200	5,115	6,210	64,917
Future tax expenses	5,747	18,048	1,169	9,064	2,177	2,509	4,888	43,602
Future net cash flows	5,631	33,035	17,557	3,796	3,507	4,710	8,598	76,834
Effect of discounting cash flows at 10%	825	15,115	5,773	(9)	(796)	3,077	2,325	26,310
Standardised measure of discounted future net cash flows	4,806	17,920	11,784	3,805	4,303	1,633	6,273	50,524
Non-controlling interest included	-	1	-	-	-	870	-	871

### 2017 - Shell share of joint ventures and associates

	Europe	Asia	Oceania	Africa	North America	South America	\$ million
					USA	Canada	Total
Future cash inflows	22,725	37,954	69	—	—	—	60,748
Future production costs	17,442	17,592	54	—	—	—	35,088
Future development costs	1,051	7,605	64	—	—	—	8,720
Future tax expenses	1,803	5,172	—	—	—	—	6,975
Future net cash flows	2,429	7,585	(49)	—	—	—	9,965
Effect of discounting cash flows at 10%	1,008	1,862	(14)	—	—	—	2,856
Standardised measure of discounted future net cash flows	1,421	5,723	(35) [A]	—	—	—	7,109

[A] While proved reserves are economically producible at the 2017 yearly average price, the standardised measure of discounted future net cash flows was negative for those proved reserves at December 31, 2017, due to addition of overhead, tax and abandonment costs and ongoing commitments post production of proved reserves.

### 2016 - Shell subsidiaries

	Europe	Asia	Oceania	Africa	North America	South America	\$ million
					USA	Canada	Total
Future cash inflows	33,837	71,019	49,872	26,422	20,239	71,652	41,999
Future production costs	17,276	25,793	22,842	12,302	17,114	54,966	21,780
Future development costs	11,630	12,481	16,795	5,533	7,894	11,948	15,053
Future tax expenses	824	9,059	1,734	5,427	561	1,327	3,700
Future net cash flows	4,107	23,686	8,501	3,160	(5,330)	3,411	1,466
Effect of discounting cash flows at 10%	351	10,663	2,889	(231)	(3,423)	2,129	(1,095)
Standardised measure of discounted future net cash flows	3,756	13,023	5,612	3,391	(1,907) [A]	1,282	2,561
Non-controlling interest included	—	—	—	(65) [A]	—	—	(65)

[A] While proved reserves are economically producible at the 2016 yearly average price, the standardised measure of discounted future net cash flows was negative for those proved reserves at December 31, 2016, due to addition of overhead, tax and abandonment costs and ongoing commitments post production of proved reserves.

### 2016 - Shell share of joint ventures and associates

	Europe	Asia	Oceania	Africa	North America	South America	\$ million
					USA	Canada	Total
Future cash inflows	26,224	28,000	88	—	—	—	54,312
Future production costs	18,163	14,060	65	—	—	—	32,288
Future development costs	1,367	7,588	41	—	—	—	8,996
Future tax expenses	2,526	3,280	—	—	—	—	5,806
Future net cash flows	4,168	3,072	(18)	—	—	—	7,222
Effect of discounting cash flows at 10%	2,363	692	(9)	—	—	—	3,046
Standardised measure of discounted future net cash flows	1,805	2,380	(9) [A]	—	—	—	4,176

[A] While proved reserves are economically producible at the 2016 yearly average price, the standardised measure of discounted future net cash flows was negative for those proved reserves at December 31, 2016, due to addition of overhead, tax and abandonment costs and ongoing commitments post production of proved reserves.

**CHANGE IN STANDARDISED MEASURE OF DISCOUNTED FUTURE NET CASH FLOWS RELATING TO PROVED RESERVES**

<b>2018</b>	\$ million		
	Shell subsidiaries	Shell share of joint ventures and associates	Total
At January 1	50,524	7,109	57,633
Net changes in prices and production costs	58,128	6,156	64,284
Revisions of previous reserves estimates	15,265	(1,447)	13,818
Extensions, discoveries and improved recovery	8,936	532	9,468
Purchases and sales of minerals in place	(3,401)	(20)	(3,421)
Development cost related to future production	(3,876)	(308)	(4,184)
Sales and transfers of oil and gas, net of production costs	(38,014)	(4,858)	(42,872)
Development cost incurred during the year	10,724	666	11,390
Accretion of discount	7,060	994	8,054
Net change in income tax	(15,501)	(1,595)	(17,096)
At December 31	89,845	7,229	97,074

<b>2017</b>	\$ million		
	Shell subsidiaries	Shell share of joint ventures and associates	Total
At January 1	27,718	4,176	31,894
Net changes in prices and production costs	34,190	3,952	38,142
Revisions of previous reserves estimates	13,769	1,931	15,700
Extensions, discoveries and improved recovery	3,901	79	3,980
Purchases and sales of minerals in place	(2,068)	–	(2,068)
Development cost related to future production	(4,823)	461	(4,362)
Sales and transfers of oil and gas, net of production costs	(27,544)	(3,652)	(31,196)
Development cost incurred during the year	14,262	536	14,798
Accretion of discount	3,844	630	4,474
Net change in income tax	(12,725)	(1,004)	(13,729)
At December 31	50,524	7,109	57,633

**2016**

	\$ million		
	Shell subsidiaries	Shell share of joint ventures and associates	Total
At January 1	25,881	10,963	36,844
Net changes in prices and production costs	(21,506)	(6,942)	(28,448)
Revisions of previous reserves estimates	6,175	(1,328)	4,847
Extensions, discoveries and improved recovery	1,268	(17)	1,251
Purchases and sales of minerals in place	24,279	–	24,279
Development cost related to future production	(15,327)	(150)	(15,477)
Sales and transfers of oil and gas, net of production costs	(19,657)	(3,087)	(22,744)
Development cost incurred during the year	15,403	854	16,257
Accretion of discount	4,376	1,363	5,739
Net change in income tax	6,826	2,520	9,346
At December 31	27,718	4,176	31,894

### OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES CAPITALISED COSTS

The aggregate amount of property, plant and equipment and intangible assets, excluding goodwill, relating to oil and gas exploration and production activities, and the aggregate amount of the related depreciation, depletion and amortisation at December 31, are shown in the tables below.

#### SHELL SUBSIDIARIES

	\$ million	2018	2017
Cost			
Proved properties [A]	265,489	277,067	[B]
Unproved properties	21,256	22,642	[B]
Support equipment and facilities	6,404	6,112	
	293,149	305,821	
Depreciation, depletion and amortisation			
Proved properties [A]	126,641	132,823	
Unproved properties	3,362	5,193	
Support equipment and facilities	3,424	3,436	
	133,427	141,452	
Net capitalised costs	159,722	164,369	

[A] Includes capitalised asset decommissioning and restoration costs and related depreciation.

[B] Includes reclassification of \$1,065 million from Exploration and Evaluation assets to Production assets related to 2017.

## SHELL SHARE OF JOINT VENTURES AND ASSOCIATES

	\$ million	2018	2017
Cost			
Proved properties [A]		44,331	43,394 [B]
Unproved properties		2,591	2,637 [C]
Support equipment and facilities		4,399	4,527 [D]
		51,321	50,558
Depreciation, depletion and amortisation			
Proved properties [A]		31,702	30,015 [E]
Unproved properties		–	– [F]
Support equipment and facilities		2,586	2,431 [G]
		34,288	32,446
Net capitalised costs		17,033	18,112

[A] Includes capitalised asset decommissioning and restoration costs and related depreciation.

[B] The balance revised to include correction of \$1,024 million related to 2017 (2017 balance \$42,370 million).

[C] The balance revised to include correction of \$20 million related to 2017 (2017 balance \$2,657 million).

[D] The balance revised to include correction of \$75 million related to 2017 (2017 balance \$4,452 million).

[E] The balance revised to include correction of \$1,829 million related to 2017 (2017 balance \$31,844 million).

[F] The balance revised to include correction of \$20 million related to 2017 (2017 balance \$20 million).

[G] The balance revised to include correction of \$711 million related to 2017 (2017 balance \$3,142 million).

## OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES COSTS INCURRED

Costs incurred during the year in oil and gas property acquisition, exploration and development activities, whether capitalised or charged to income currently, are shown in the tables below. Finance leases are excluded. Development costs include capitalised asset decommissioning and restoration costs (including increases or decreases arising from changes to cost estimates or to the discount rate applied to the obligations) and exclude costs of acquiring support equipment and facilities, but include depreciation thereon.

## SHELL SUBSIDIARIES

	\$ million							
	Europe	Asia	Oceania	Africa	USA	Other[A]	South America	Total
Acquisition of properties								
Proved	3	3	–	596	44	–	–	646
Unproved	2	6	–	76	44	310	486	924
Exploration	384	182	49	188	1,912	251	502	3,468 [B]
Development	1,452	1,102	1,632	962	4,052	505	2,095	11,800

[A] Comprises Canada, Honduras and Mexico.

[B] Includes \$1,581 million of Shales-related exploration activities. In 2018, we participated in 234 Shales productive exploratory wells with proved reserves allocated (Shell share: 118 wells).

	\$ million							
	Europe	Asia	Oceania	Africa	USA	Other[A]	South America	Total
Acquisition of properties								
Proved	–	–	–	10	–	2,246	19	2,275
Unproved	–	12	–	18	141	320	57	548
Exploration	329	135	38	138	1,354	235	600	2,829
Development	776	840	2,493	371	4,123	722	1,671	10,996

[A] Comprises Canada, Honduras and Mexico.

2016 [A]	\$ million							
	Europe	Asia	Oceania	Africa	North America		South America	Total
Acquisition of properties					USA	Other[B]		
Proved	1,978	4,709	6,917	926	132	—	28,803	43,465
Unproved	280	—	2	357	87	20	102	848
Exploration	338	400	34	247	1,043	415	574	3,051
Development	2,289	1,982	3,352	1,087	3,497	701	1,788	14,696

[A] Includes \$44,127 million of related costs incurred on acquisition of BG.

[B] Comprises Canada, Honduras and Mexico.

#### SHELL SHARE OF JOINT VENTURES AND ASSOCIATES

Joint ventures and associates did not incur costs in the acquisition of oil and gas properties in 2018, 2017 or 2016.

2018	\$ million							
	Europe	Asia	Oceania	Africa	North America		South America	Total
Exploration	—	90	14	—	—	—	—	104
Development	229	1,026	79	—	—	—	—	1,334

2017	\$ million							
	Europe	Asia	Oceania	Africa	North America		South America	Total
Exploration	3	82	8	—	—	—	—	93
Development	(22) [A]	660	58	—	—	—	—	696

[A] Includes a revision of decommissioning and restoration provisions.

2016	\$ million							
	Europe	Asia	Oceania	Africa	North America		South America	Total
Exploration	33	57	101	—	—	—	—	191
Development	99	2,173	273	—	—	—	—	2,545

## OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES EARNINGS

The results of operations for oil and gas producing activities are shown in the tables below. Taxes other than income tax include cash-paid royalties to governments outside North America.

### SHELL SUBSIDIARIES

	2018						\$ million	
	Europe	Asia	Oceania	Africa	North America	South America	Total	
Revenue					USA	Other[A]		
Third parties	1,875	3,364	1,389	2,401	2,165	507	1,023	12,724
Sales between businesses	6,705	11,284	4,683	3,586	7,716	1,946	7,154	43,074
<b>Total</b>	<b>8,580</b>	<b>14,648</b>	<b>6,072</b>	<b>5,987</b>	<b>9,881</b>	<b>2,453</b>	<b>8,177</b>	<b>55,798</b>
Production costs excluding taxes	2,262	2,143	1,073	1,093	2,573	1,069	1,401	11,614
Taxes other than income tax	122	841	199	328	83	–	2,767	4,340
Exploration	277	149	78	144	341	114	237	1,340
Depreciation, depletion and amortisation	2,684	2,301	1,571	1,394	4,543	(346)	3,271	15,418
Other costs/(income)	947	(180)	(514)	609	447	667	849	2,825
Earnings before taxation	2,288	9,394	3,665	2,419	1,894	949	(348)	20,261
Taxation charge/(credit)	2,047	4,851	893	902	550	236	1,162	10,641
<b>Earnings after taxation</b>	<b>241</b>	<b>4,543</b>	<b>2,772</b>	<b>1,517</b>	<b>1,344</b>	<b>713</b>	<b>(1,510)</b>	<b>9,620</b>

[A] Comprises Canada, Honduras and Mexico.

	2017						\$ million	
	Europe	Asia	Oceania	Africa	North America	South America	Total	
Revenue					USA	Other[A]		
Third parties	1,193	2,708	1,414	1,872	1,080	339	689	9,295
Sales between businesses	7,120	9,061	2,400	3,218	5,119	2,938	5,245	35,101
<b>Total</b>	<b>8,313</b>	<b>11,769</b>	<b>3,814</b>	<b>5,090</b>	<b>6,199</b>	<b>3,277</b>	<b>5,934</b>	<b>44,396</b>
Production costs excluding taxes	2,509	2,469	1,110	1,365	2,558	1,571	1,218	12,800
Taxes other than income tax	89	556	119	287	98	1	1,691	2,841
Exploration	243	245	42	129	868	142	276	1,945
Depreciation, depletion and amortisation	2,560	2,892	1,777	1,863	3,410	3,886	3,374	19,762
Other costs/(income)	(157)	1,073	(382)	145	114	1,050	469	2,312
Earnings before taxation	3,069	4,534	1,148	1,301	(849)	(3,373)	(1,094)	4,736
Taxation (credit)/charge	1,689	2,969	(202)	(361)	363	(1,486)	(294)	2,678
<b>Earnings after taxation</b>	<b>1,380</b>	<b>1,565</b>	<b>1,350</b>	<b>1,662</b>	<b>(1,212)</b>	<b>(1,887)</b>	<b>(800)</b>	<b>2,058</b>

[A] Comprises Canada, Honduras and Mexico.

**2016**

	Europe	Asia	Oceania	Africa	North America	South America	\$ million Total
					USA	Other[A]	
Revenue							
Third parties	969	2,656	1,069	1,380	643	41	476 7,234
Sales between businesses	5,816	7,284	1,438	3,138	3,960	3,789	2,980 28,405
Total	6,785	9,940	2,507	4,518	4,603	3,830	3,456 35,639
Production costs excluding taxes	2,565	2,212	805	1,468	3,348	2,230	865 13,493
Taxes other than income tax	66	421	83	194	70	—	790 1,624
Exploration	250	408	70	356	438	291	295 2,108
Depreciation, depletion and amortisation	3,270	3,304	1,130	2,018	4,372	1,953	2,881 18,928
Other costs/(income)	1,925	1,606	(700)	356	40	680	(173) 3,734
Earnings before taxation	(1,291)	1,989	1,119	126	(3,665)	(1,324)	(1,202) (4,248)
Taxation charge/(credit)	(311)	1,918	559	431	(1,351)	(377)	(1,032) (163)
Earnings after taxation	(980)	71	560	(305)	(2,314)	(947)	(170) (4,085)

[A] Comprises Canada, Honduras and Mexico.

**SHELL SHARE OF JOINT VENTURES AND ASSOCIATES**

Oceania included Shell's 14% share of Woodside from January 2016 to April 2016, when its accounting classification was changed from an associate to an investment in securities. Woodside is a publicly-listed company on the Australian Securities Exchange for which we have limited access to data; accordingly, the numbers are estimated.

**2018**

	Europe	Asia	Oceania	Africa	North America	South America	\$ million Total
					USA	Canada	
Third-party revenue	1,395	5,884	79	—	—	—	— 7,358
Total	1,395	5,884	79	—	—	—	— 7,358
Production costs excluding taxes	307	674	105	—	—	—	— 1,086
Taxes other than income tax	82	1,259	4	—	—	—	— 1,345
Exploration	5	45	—	—	—	—	— 50
Depreciation, depletion and amortisation	318	1,016	163	—	—	—	— 1,497
Other costs/(income)	595	615	(26)	—	—	—	— 1,184
Earnings before taxation	88	2,275	(167)	—	—	—	— 2,196
Taxation charge	7	975	—	—	—	—	— 982
Earnings after taxation	81	1,300	(167)	—	—	—	— 1,214

**2017**

\$ million

	Europe	Asia	Oceania	Africa	North America	South America	Total
					USA	Canada	
Third-party revenue	1,646	4,503	58	–	–	–	– 6,207
Total	1,646	4,503	58	–	–	–	– 6,207
Production costs excluding taxes	337	729	93	–	–	–	– 1,159
Taxes other than income tax	631	705	4	–	–	–	– 1,340
Exploration	7	57	4	–	–	–	– 68
Depreciation, depletion and amortisation	188	1,654	40	–	–	–	– 1,882
Other costs/(income)	(83)	511	(60)	–	–	–	– 368
Earnings before taxation	566	847	(23)	–	–	–	– 1,390
Taxation charge	173	197	–	–	–	–	– 370
Earnings after taxation	393	650	(23)	–	–	–	– 1,020

**2016**

\$ million

	Europe	Asia	Oceania	Africa	North America	South America	Total
					USA	Canada	
Third-party revenue	1,705	3,708	197	–	–	–	– 5,610
Total	1,705	3,708	197	–	–	–	– 5,610
Production costs excluding taxes	383	705	123	–	–	–	– 1,211
Taxes other than income tax	706	456	7	–	–	–	– 1,169
Exploration	36	25	27	–	–	–	– 88
Depreciation, depletion and amortisation	208	1,663	237	–	–	–	– 2,108
Other costs/(income)	(11)	401	(28)	–	–	–	– 362
Earnings before taxation	383	458	(169)	–	–	–	– 672
Taxation charge	91	23	8	–	–	–	– 122
Earnings after taxation	292	435	(177)	–	–	–	– 550

## ACREAGE AND WELLS

The tables below reflect acreage and wells of Shell subsidiaries, joint ventures and associates. The term "gross" refers to the total activity in which Shell subsidiaries, joint ventures and associates have an interest. The term "net" refers to the sum of the fractional interests owned by Shell subsidiaries plus the Shell share of joint ventures and associates' fractional interests. Data below are rounded to the nearest whole number.

	Oil and gas acreage (at December 31)								Thousand acres			
	2018				2017				2016			
	Developed		Undeveloped		Developed		Undeveloped		Developed		Undeveloped	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Europe [A]	6,228	1,958	15,443	6,913	6,463	2,071	14,119	6,187	6,556	2,197	18,216	10,241
Asia	22,087	7,885	31,676	15,433	25,975	9,139	35,305	18,730	26,003	9,199	58,463	36,298
Oceania	3,202	1,220	15,662	10,298	3,296	1,255	22,406	13,985	1,939	822	37,876	24,109
Africa	4,666	1,940	38,874	22,732	4,663	1,938	33,453	20,811	5,083	2,315	41,517	29,152
North America - USA	1,541	952	2,133	1,635	1,936	1,134	2,718	1,937	2,002	1,197	4,151	2,577
North America - Mexico	-	-	5,178	3,885	-	-	-	-	-	-	-	-
North America - Canada	1,108	752	1,681	1,193	953	651	15,818 [B]	14,468 [B]	976	670	25,253 [C]	18,865 [C]
South America	1,490	710	10,352	6,725	1,302	606	9,338	6,196	1,315	547	17,759	14,643
Total	40,322	15,416	120,999	68,814	44,588	16,794	133,157	82,314	43,874	16,947	203,235	135,885

[A] Includes Greenland.

[B] Corrected from 16,714 (15,005 net).

[C] Corrected from 26,149 (19,402 net).

## Number of productive wells [A] (at December 31)

	2018								2017				2016			
	Oil				Gas				Oil		Gas		Oil		Gas	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Europe	1,077	277	1,201	379	1,156	303	1,235	392	1,215	321	1,232	403	1,215	321	1,232	403
Asia	7,498	2,750	331	189	9,279 [B]	3,067 [B]	682 [C]	269 [C]	9,157 [D]	3,089 [D]	632 [E]	251 [E]	9,157	3,089	632	251
Oceania	-	-	3,411	1,924	-	-	3,499	1,926	-	-	3,257	1,734	-	-	3,257	1,734
Africa	478	189	195	132	380	155	180	122	662	289	191	127	662	289	191	127
North America - USA	15,224	7,745	1,479	672	15,408	7,817	1,636	717	15,532	7,892	3,046	2,136	15,532	7,892	3,046	2,136
North America - Canada	1	1	936	846	-	-	892	794	283	283	941	781	283	283	941	781
South America	119	53	62	41	111	47	55	32	73	28	50	26	73	28	50	26
Total	24,397	11,015	7,615	4,183	26,334	11,389	8,179	4,252	26,922	11,902	9,349	5,458	26,922	11,902	9,349	5,458

[A] The number of productive wells with multiple completions (more than one formation producing into the same well bore) at December 31, 2018, was 1,132 gross (489 net); 2017: 1,696 gross, corrected from 1,946 gross (636 net, corrected from 761); 2016: 1,456 gross, corrected from 1,721 gross (554 net, corrected from 686 net).

[B] Corrected from 9,410 (3,132 net).

[C] Corrected from 711 (283 net).

[D] Corrected from 9,261 (3,141 net).

[E] Corrected from 656 (263 net).

### Number of net productive wells and dry holes drilled

	2018		2017		2016	
	Productive	Dry	Productive	Dry	Productive	Dry
Exploratory [A]						
Europe	1	2	–	1	–	–
Asia	9	10	3	5	2	4
Oceania	–	–	2	–	–	–
Africa	6	6	2	3	4	2
North America - USA	104	4	9	6	40	2
North America - Canada	14	–	30	5	–	–
South America	6	7	6	–	–	–
Total	140	29	52	20	46	8
Development						
Europe	4	–	5	–	10	1
Asia	222	–	312	4	265	–
Oceania	41	–	63	–	184	–
Africa	24	1	24	3	15	–
North America - USA	276	–	237	–	137	–
North America - Canada	53	–	56	1	50	–
South America	5	–	1	–	3	–
Total	625	1	698	8	664	1

[A] Productive wells are wells with proved reserves allocated. Wells in the process of exploratory drilling are excluded and presented separately below.

### Number of wells in the process of exploratory drilling [A]

2018

	Wells in the process of drilling at January 1 and allocated proved reserves during the year				Wells in the process of drilling at January 1 and determined as dry during the year				New wells in the process of drilling at December 31		At December 31	
	At January 1		Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
	Gross	Net										
Europe	22	11	(1)	–	(4)	(2)	2	1	19	10		
Asia	71	25	(23)	(8)	(4)	(1)	24	9	68	25		
Oceania	47 [B]	15 [B]	(5)	(1)	–	–	3	1	45	15		
Africa	42	27	–	–	(4)	(3)	9	7	47	31		
North America - USA	212 [C]	137 [C]	(122)	(68)	(4)	(2)	65	29	151	96		
North America - Canada	7 [D]	7 [D]	(7)	(7)	–	–	–	–	–	–		
South America	46	20	(14)	(6)	(16)	(7)	20	12	36	19		
Total	447	242	(172)	(90)	(32)	(15)	123	59	366	196		

[A] Wells in the process of exploratory drilling includes wells pending further evaluation.

[B] Corrected from 50 (17 net).

[C] Corrected from 214 (138 net).

[D] Corrected from 5 (5 net).

**Number of wells in the process of development drilling**

	At January 1		2018	
	Gross	Net	Gross	Net
Europe	7	2	5	2
Asia	73 [A]	28 [A]	36	14
Oceania	1	—	3	1
Africa	—	—	5	5
North America - USA	143 [B]	96 [B]	64	33
North America - Canada	21	18	17	17
South America	7 [C]	2 [C]	9	4
<b>Total</b>	<b>252</b>	<b>146</b>	<b>139</b>	<b>76</b>

[A] Corrected from 75 (29 net).

[B] Corrected from 144 (97 net).

[C] Corrected from 12 (3 net).

In addition to the present activities mentioned above, the following recovery methods are operational in the following countries: water flooding (Brazil (including water alternating gas), Brunei, Denmark, Egypt, Malaysia, Nigeria, Norway, Oman, Russia, the UK and the USA); gas injection (Brunei, Kazakhstan, Malaysia, Nigeria and Oman); steam injection (the Netherlands, Oman and the USA), and polymer flooding (Oman).

# Parent Company Financial Statements

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The Parent Company Financial Statements have not been audited in accordance with the standards of the Public Company Accounting Oversight Board (United States).

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## Parent Company Financial Statements Continued

<b>Statement of Income</b>		\$ million	
	Notes	2018	2017
Dividend income		23,278	10,958
Interest and other income	3	141	49
Administrative expenses		(43)	(53)
Interest and other expense	3	(222)	(26)
Income before taxation		23,154	10,928
Taxation charge/(credit)	6	44	(23)
Income for the period		23,110	10,951

<b>Statement of Comprehensive Income</b>		\$ million	
		2018	2017
Income for the period		23,110	10,951
Comprehensive income for the period		23,110	10,951

<b>Balance Sheet</b>		\$ million	
	Notes	Dec 31, 2018	Dec 31, 2017
<b>Assets</b>			
Non-current assets			
Investments in subsidiaries	4	256,920	256,882
Deferred tax	6	355	598
		257,275	257,480
Current assets			
Amounts due from subsidiaries	13	9,263	5,022
Cash and cash equivalents		3	3
		9,266	5,025
Total assets		266,541	262,505
<b>Liabilities</b>			
Non-current liabilities			
Accounts payable and accrued liabilities	5	—	332
		—	332
Current liabilities			
Accounts payable and accrued liabilities	5	4,862	4,333
		4,862	4,333
Total liabilities		4,862	4,665
<b>Equity</b>			
Share capital	8	685	696
Other reserves	9	235,536	235,366
Retained earnings		25,458	21,778
Total equity		261,679	257,840
Total liabilities and equity		266,541	262,505

Signed on behalf of the Board

/s/ Jessica Uhl

**Jessica Uhl**  
Chief Financial Officer  
March 13, 2019

<b>Statement of Changes in Equity</b>			\$ million		
	Notes	Share capital	Other reserves	Retained earnings	Total equity
<b>At January 1, 2018</b>		696	235,366	21,778	257,840
Comprehensive income for the period		–	–	23,110	23,110
Dividends	10	–	–	(15,675)	(15,675)
Repurchase of shares	8	(11)	11	(4,519)	(4,519)
Share-based compensation [A]	9	–	159	764	923
<b>At December 31, 2018</b>		685	235,536	25,458	261,679
<b>At January 1, 2017</b>		683	235,573	21,088	257,344
Comprehensive income for the period		–	–	10,951	10,951
Dividends	10	–	–	(15,628)	(15,628)
Scrip dividends	10	13	(13)	4,751	4,751
Share-based compensation	9	–	(194)	616	422
<b>At December 31, 2017</b>		696	235,366	21,778	257,840
[A] The amendments to IFRS 2 <i>Share-based payment</i> became effective January 1, 2018. Following adoption of the amendments, components of share-based payments (related to tax) that were previously classified as cash-settled are now classified as equity-settled. This resulted in an increase of \$172 million in the share plan reserve within other reserves and an increase of \$150 million in retained earnings.					
<b>Statement of Cash Flows</b>			\$ million		
	Notes		2018	2017	
Income for the period			23,110	10,951	
Adjustment for:					
Dividend income			(23,278)	(10,958)	
Tax			44	(23)	
Interest income			(141)	(24)	
Interest expense			156	26	
Share-based compensation			16	25	
Increase in working capital			(3,796)	(333)	
<b>Cash flow from operating activities</b>			(3,889)	(336)	
Dividends received			23,278	10,958	
Interest received			141	24	
Share-based compensation			248	258	
<b>Cash flow from investing activities</b>			23,667	11,240	
Cash dividends paid	10		(15,675)	(10,877)	
Shares repurchased	8		(3,947)	–	
Interest and other expenses paid			(156)	(26)	
<b>Cash flow from financing activities</b>			(19,778)	(10,903)	
Change in cash and cash equivalents			–	1	
Cash and cash equivalents at beginning of the year			3	2	
Cash and cash equivalents at end of the year			3	3	

# Notes to the Parent Company Financial Statements

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## 1 BASIS OF PREPARATION

The Financial Statements of Royal Dutch Shell plc (the Company) have been prepared in accordance with the provisions of the Companies Act 2006 (the Act) and with International Financial Reporting Standards (IFRS) as adopted by the European Union. As applied to the Company, there are no material differences from IFRS as issued by the International Accounting Standards Board (IASB); therefore, the Financial Statements have been prepared in accordance with IFRS as issued by the IASB.

As described in the accounting policies in Note 2, the Financial Statements have been prepared under the historical cost convention except for certain items measured at fair value. Those accounting policies have been applied consistently in all periods, except for IFRS 2 *Share-based payment* where amendments to the standard were adopted from January 1, 2018.

The Financial Statements were approved and authorised for issue by the Board of Directors on March 13, 2019.

The preparation of financial statements in conformity with IFRS requires the use of certain accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies. Actual results may differ from those estimates.

The financial results of the Company are included in the Consolidated Financial Statements on pages 167-214. The financial results of the Company incorporate the results of the Dividend Access Trust (the Trust), the financial statements of which are presented on pages 251-255.

The Company's principal activity is being the parent company for Shell, as described in Note 1 to the Consolidated Financial Statements.

## 2 SIGNIFICANT ACCOUNTING POLICIES

The Company's accounting policies follow those of Shell as set out in Note 2 to the Consolidated Financial Statements. The following are Company-specific policies.

### PRESENTATION AND FUNCTIONAL CURRENCY

The Company's presentation and functional currency is US dollars (dollars).

### INVESTMENTS

Investments in subsidiaries are stated at cost, net of any impairment. Investments are tested for impairment whenever events or changes in circumstances indicate that the carrying amounts for those investments may not be recoverable. For the purposes of determining whether impairment of investments in subsidiaries has occurred, and the extent of any impairment loss or its reversal, the key assumptions management uses in estimating risk-adjusted future cash flows for value-in-use measures include future oil and gas prices, expected production volumes and refining margins appropriate to the local circumstances and environment. These assumptions and the judgements of management that are based on them are subject to change as new information becomes available. Cash flow estimates are risk-adjusted to reflect local conditions as appropriate and discounted at a rate based on Shell's marginal cost of debt. Changes in economic conditions can also affect the rate used to discount future cash flow estimates. Future price assumptions are presented in Note 8 to the Consolidated Financial Statements.

The original cost of the Company's investment in Royal Dutch Petroleum Company (Royal Dutch) was based on the fair value of the shares transferred to the Company by the former shareholders of Royal Dutch in exchange for A shares in the Company during the public exchange offer in 2005. The original cost of the Company's investment in The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited (Shell Transport), was the fair value of the shares held by the former shareholders of The "Shell" Transport and Trading Company, p.l.c. transferred in consideration for the issuance of B shares as part of the Scheme of Arrangement in 2005. The Company's investments in Royal Dutch and Shell Transport now represent an investment in Shell Petroleum N.V. (Shell Petroleum); this change had no impact on the cost of investments in subsidiaries.

### DIVIDEND INCOME

Dividends are recognised on a paid basis unless the dividend has been confirmed by a general meeting of Shell Petroleum, in which case income is recognised on the date at which receipt is deemed virtually certain.

### SHARE-BASED COMPENSATION PLANS

The fair value of share-based compensation for equity-settled plans granted to employees of subsidiaries under the Company's plans is recognised as an investment in subsidiaries from the date of grant over the vesting period with a corresponding increase in equity. Before the adoption of amendments to IFRS 2 *Share-based payment* from January 1, 2018, the changes in the fair value of share-based compensation for cash-settled plans relating to employees of subsidiaries were recognised as an investment in subsidiaries with a corresponding change in liabilities.

In the year of vesting of a plan, the costs for the actual deliveries are charged to the relevant employing subsidiaries. This is recognised as a realisation of the investment originally booked. If the actual vesting costs are higher than the cumulatively recognised share-based compensation charge, the difference is recognised in income.

See Note 21 to the Consolidated Financial Statements for information on the Company's principal plan.

## TAXATION

The Company is tax-resident in the Netherlands. For the assessment of corporate income tax in the Netherlands, the Company and certain of its subsidiaries form a fiscal unit, in respect of which the Company recognises any current tax receivable or payable (and deferred tax asset or liability) for the fiscal unit as a whole to the extent such balances have been settled between the Company and other members of the fiscal unit at the balance sheet date.

The Company's tax charge or credit recognised in income is calculated at the statutory tax rate prevailing in the Netherlands for current tax and statutory tax rate substantively enacted in the Netherlands for deferred tax.

## 3 INTEREST AND OTHER INCOME/EXPENSE

	\$ million	2018	2017
Interest and other income:			
Interest income		141	24
Foreign exchange gains		–	25
Total		141	49
Interest and other expenses:			
Interest expense		(156)	(26)
Foreign exchange losses		(66)	–
Total		(222)	(26)

## 4 INVESTMENTS IN SUBSIDIARIES

	\$ million	2018	2017
At January 1		256,882	256,583
Share-based compensation		512	779
Recovery of vested share-based compensation		(474)	(480)
At December 31		256,920	256,882

## 5 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	Dec 31, 2018		Dec 31, 2017	
	Current	Non-current	Current	Non-current
Amounts due to subsidiaries (see Note 13)	3,934	–	3,859	–
Accruals and other liabilities	614	–	318	332
Withholding tax payable	311	–	153	–
Unclaimed dividends	3	–	3	–
Total	4,862	–	4,333	332

Accruals and other liabilities at December 31, 2018, principally comprise commitments for share repurchases undertaken on the Company's behalf under irrevocable, non-discretionary arrangements.

Accruals and other liabilities at December 31, 2017, were principally in respect of cash-settled share-based compensation.

## 6 TAXATION

<b>Taxation charge/(credit)</b>	\$ million	
	2018	2017
Deferred tax:		
Relating to the origination and reversal of temporary differences	33	–
Relating to changes in tax rates and legislation	11	–
Adjustments in respect of prior periods	–	(23)
Taxation charge/(credit)	44	(23)

In 2018, deferred tax relating to changes in tax rates and legislation was in respect of announced reductions in corporation tax rates in the Netherlands.

<b>Reconciliation of applicable tax charge at statutory tax rate to taxation charge/(credit)</b>	\$ million	
	2018	2017
Income before taxation	23,154	10,928
Applicable tax charge at the statutory tax rate of 25.0% (2017: 25.0%)	5,789	2,732
Adjustments in respect of prior periods	–	(23)
Tax effects of:		
Income not subject to tax at statutory rates	(5,820)	(2,744)
Expenses not deductible for tax purposes	20	6
Other	55	6
Taxation charge/(credit)	44	(23)

Taxes payable are reported within accounts payable and accrued liabilities (see Note 5).

<b>Deferred tax assets</b>	\$ million	
	2018	2017
At January 1	598	352
Recognised in income	(44)	23
Other movements	(199)	223
At December 31	355	598

Deferred tax assets are recognised in respect of credits carried forward and in respect of tax losses, amounting to \$240 million at December 31, 2018 (2017: \$476 million), which are available for relief against future taxable profits for up to nine years from the year in which the losses were incurred.

## 7 FINANCIAL INSTRUMENTS

The adoption of IFRS 9 *Financial Instruments* in 2018 has had no significant impact on the Company's accounting or disclosures.

Financial assets and liabilities measured at amortised cost in the Company's Balance Sheet comprise amounts due from subsidiaries (see Note 13) and certain amounts reported within accounts payable and accrued liabilities (see Note 5). The fair value of financial assets and liabilities at December 31, 2018, and 2017, approximates their carrying amount.

Information on financial risk management is presented in Note 19 to the Consolidated Financial Statements. Foreign currency derivatives are used by the Company to manage foreign exchange risk, which arises when certain transactions are denominated in a currency that is not the Company's functional currency. There were no derivative financial instruments held at December 31, 2018, or 2017.

## 8 SHARE CAPITAL

### Issued and fully paid ordinary shares of €0.07 each [A]

	Number of shares		Nominal value (\$ million)		
	A	B	A	B	Total
At January 1, 2018	4,597,136,050	3,745,486,731	387	309	696
Repurchase of shares	(125,246,754)	–	(11)	–	(11)
At December 31, 2018	4,471,889,296	3,745,486,731	376	309	685
At January 1, 2017	4,428,903,813	3,745,486,731	374	309	683
Scrip dividends	168,232,237	–	13	–	13
At December 31, 2017	4,597,136,050	3,745,486,731	387	309	696

[A] Share capital at December 31, 2018, and 2017, also included 50,000 issued and fully paid sterling deferred shares of £1 each.

At the Company's Annual General Meeting (AGM) on May 22, 2018, the Board was authorised to allot ordinary shares in the Company, and to grant rights to subscribe for or to convert any security into ordinary shares in the Company, up to an aggregate nominal amount of €194 million (representing 2,771 million ordinary shares of €0.07 each), and to list such shares or rights on any stock exchange. This authority expires at the earlier of the close of business on August 22, 2019, and the end of the AGM to be held in 2019, unless previously renewed, revoked or varied by the Company in a general meeting.

At the May 22, 2018 AGM, shareholders granted the Company the authority to repurchase up to 10% of its issued ordinary shares (excluding any treasury shares), renewing the authority granted by the shareholders at previous AGMs. The authority will expire at the earlier of the close of business on August 22, 2019, and the end of the AGM of the Company to be held in 2019. Ordinary shares purchased by the Company pursuant to this authority will either be cancelled or held in treasury. Treasury shares are shares in the Company which are owned by the Company itself. The minimum price, exclusive of expenses, which may be paid for an ordinary share is €0.07. The maximum price, exclusive of expenses, which may be paid for an ordinary share is the higher of: (i) an amount equal to 5% above the average market value for an ordinary share for the five business days immediately preceding the date of the purchase; and (ii) the higher of the price of the last independent trade and the highest current independent bid on the trading venues where the purchase is carried out.

A shares repurchased in 2018 under the Company's share buyback programme were all cancelled.

B shares rank equally in all respects with A shares except for the dividend access mechanism described below. The Company, Shell Transport and BG Group Limited (BG), can procure the termination of the dividend access mechanism at any time. Upon such termination, B shares will form one class with A shares ranking equally in all respects and A and B shares will be known as ordinary shares without further distinction.

The sterling deferred shares are redeemable only at the discretion of the Company for £1 each and carry no voting rights. There are no further rights to participate in profits or assets, including the right to receive dividends. Upon winding up or liquidation, the shares carry a right to repayment of paid-up nominal value, ranking ahead of A and B shares.

For information on the number of shares in the Company held by Shell employee share ownership trusts and trust-like entities to meet delivery commitments under employee share plans, see Note 21 to the Consolidated Financial Statements.

### DIVIDEND ACCESS MECHANISM FOR B SHARES

#### General

Dividends paid on A shares have a Dutch source for tax purposes and are subject to Dutch withholding tax.

It is the expectation and the intention, although there can be no certainty, that holders of B shares will receive dividends through the dividend access mechanism. Any dividends paid on the dividend access shares will have a UK source for UK and Dutch tax purposes. There will be no Dutch withholding tax on such dividends. From April 2016, there were changes to the taxation of dividends for individual shareholders resident in the UK. The dividend tax credit was abolished, and a tax-free dividend allowance introduced.

#### **Description of dividend access mechanism**

Shell Transport and BG have each issued a dividend access share to Computershare Trustees (Jersey) Limited as Trustee. Pursuant to a declaration of trust, the Trustee will hold any dividends paid in respect of the dividend access shares on trust for the holders of B shares and will arrange for prompt disbursement of such dividends to holders of B shares. Interest and other income earned on unclaimed dividends will be for the account of Shell Transport and BG and any dividends which are unclaimed after 12 years will revert to Shell Transport and BG once forfeited. Holders of B shares will not have any interest in either dividend access share and will not have any rights against Shell Transport and BG as issuers of the dividend access shares. The only assets held on trust for the benefit of the holders of B shares will be dividends paid to the Trustee in respect of the dividend access shares.

The declaration and payment of dividends on the dividend access shares will require board action by Shell Transport and BG (as applicable) and will be subject to any applicable limitations in law or in the Shell Transport or BG (as appropriate) articles of association in effect. In no event will the aggregate amount of the dividend paid by Shell Transport and BG under the dividend access mechanism for a particular period exceed the aggregate of the dividend announced by the Board of the Company on B shares in respect of the same period (after giving effect to currency conversions).

In particular, under their respective articles of association, Shell Transport and BG are each only able to pay a dividend on their respective dividend access shares which represents a proportional amount of the aggregate of any dividend announced by the Company on the B shares in respect of the relevant period, where such proportions are calculated by reference to, in the case of Shell Transport, the number of B shares in existence prior to completion of the Company's acquisition of BG and, in the case of BG, the number of B shares issued as part of the acquisition, in each case as against the total number of B shares in issue immediately following completion of the acquisition of BG.

#### **Operation of the dividend access mechanism**

If, in connection with the announcement of a dividend by the Company on B shares, the Board of Shell Transport and/or the Board of BG elects to declare and pay a dividend on their respective dividend access shares to the Trustee, the holders of B shares will be beneficially entitled to receive their share of those dividends pursuant to the declaration of trust (and arrangements will be made to ensure that the dividend is paid in the same currency in which they would have received a dividend from the Company).

If any amount is paid by Shell Transport or BG by way of a dividend on the dividend access shares and paid by the Trustee to any holder of B shares, the dividend which the Company would otherwise pay on B shares will be reduced by an amount equal to the amount paid to such holders of B shares by the Trustee.

The Company will have a full and unconditional obligation, in the event that the Trustee does not pay an amount to holders of B shares on a cash dividend payment date (even if that amount has been paid to the Trustee), to pay immediately the dividend announced on B shares. The right of holders of B shares to receive distributions from the Trustee will be reduced by an amount equal to the amount of any payment actually made by the Company on account of any dividend on B shares.

If for any reason no dividend is paid on the dividend access shares, holders of B shares will only receive dividends from the Company directly. Any payment by the Company will be subject to Dutch withholding tax (unless an exemption is obtained under Dutch law or under the provisions of an applicable tax treaty).

The Dutch tax treatment of dividends paid under the dividend access mechanism has been confirmed by the Dutch Revenue Service in an agreement ("vaststellingsovereenkomst") with the Company and N.V. Koninklijke Nederlandse Petroleum Maatschappij (Royal Dutch Petroleum Company) dated October 26, 2004, as supplemented and amended by an agreement between the same parties dated April 25, 2005, and a final settlement agreement in connection with the acquisition of BG dated November 9, 2015. The agreements state, among other things, that dividend distributions on the dividend access shares by Shell Transport and/or BG will not be subject to Dutch withholding tax provided that the dividend access mechanism is structured and operated substantially as set out above.

The Company may not extend the dividend access mechanism to any future issuances of B shares without prior consultation with the Dutch Revenue Service.

Accordingly, the Company would not expect to issue additional B shares unless confirmation from the Dutch Revenue Service was obtained or the Company were to determine that the continued operation of the dividend access mechanism was unnecessary. Any further issue of B shares is subject to advance consultation with the Dutch Revenue Service.

The dividend access mechanism may be suspended or terminated at any time by the Company's Directors or the Directors of Shell Transport or BG, for any reason and without financial recompense. This might, for instance, occur in response to changes in relevant tax legislation.

## **9 OTHER RESERVES**

					\$ million
	Merger reserve	Share premium reserve	Capital redemption reserve	Share plan reserve	Total
<b>At January 1, 2018</b>	234,231	154	84	897	235,366
Repurchase of shares	–	–	11	–	11
Share-based compensation	–	–	–	159	159
<b>At December 31, 2018</b>	<b>234,231</b>	<b>154</b>	<b>95</b>	<b>1,056</b>	<b>235,536</b>
<b>At January 1, 2017</b>	<b>234,244</b>	<b>154</b>	<b>84</b>	<b>1,091</b>	<b>235,573</b>
Scrip dividends	(13)	–	–	–	(13)
Share-based compensation	–	–	–	(194)	(194)
<b>At December 31, 2017</b>	<b>234,231</b>	<b>154</b>	<b>84</b>	<b>897</b>	<b>235,366</b>

The merger reserve was established as a consequence of the Company becoming the single parent company of Royal Dutch and Shell Transport and represented the difference between the cost of the investment in those companies and the nominal value of shares issued in exchange for those investments as required by the prevailing legislation at that time, section 131 of the Companies Act 1985. On February 15, 2016, the Company acquired all shares in BG Group plc by means of a Scheme of Arrangement under Part 26 of the Act, via the issuance of 218.7 million A shares and 1,305.1 million B shares and cash payments. This resulted in an increase in the merger reserve, representing the difference between the fair value and the nominal value of the shares issued by the Company.

On January 6, 2006, loan notes were converted into 4,827,974 A shares. The difference between the carrying value of the loan notes and the nominal value of the new shares issued was credited to the share premium reserve. The capital redemption reserve was established in connection with repurchases of shares of the Company. The share plan reserve is in respect of equity-settled share-based compensation plans (see Note 21 to the Consolidated Financial Statements) and movement in share-based compensation for the year is the net of the charge to equity, the release as a result of vested awards and the impact of amendments to IFRS 2 *Share-based payment*.

## **10 DIVIDENDS**

See Note 23 to the Consolidated Financial Statements.

## **11 LEGAL PROCEEDINGS AND OTHER CONTINGENCIES**

See Note 25 to the Consolidated Financial Statements.

## **12 DIRECTORS AND SENIOR MANAGEMENT**

See Note 27 to the Consolidated Financial Statements for the remuneration of Directors of the Company. In 2018, the Company recognised \$24 million (2017: \$25 million) in administrative expenses for the compensation of Directors and Senior Management.

## 13 RELATED PARTIES

Information about the Company's subsidiaries, and whether these are held directly or indirectly, and other related undertakings (all of which are held indirectly), at December 31, 2018, is set out in Exhibit 8.

	\$ million			
	Amounts due from subsidiaries		Amounts due to subsidiaries (see Note 5)	
	2018	2017	2018	2017
Shell Petroleum	—	4,502	550	672
Shell Treasury Centre Limited	9,260	518	—	—
Shell Corporate Services Switzerland AG	—	—	3,384	—
Shell Treasury Luxembourg Sarl	—	—	—	3,164
Other	3	2	—	23
Total	9,263	5,022	3,934	3,859

The amount due from Shell Petroleum at December 31, 2018 is \$nil (2017: \$4,502 million). Interest was calculated at US LIBOR less 0.210% (2017: US LIBOR less 0.058%) and interest income in 2018 was \$134 million (2017: \$19 million).

The amount due from Shell Treasury Centre Limited (STCL) comprises call deposits in dollars, sterling and euros. Interest is calculated at US LIBOR less 0.210% (2017: US LIBOR less 0.058%) on dollar balances, at GBP LIBOR less 0.190% (2017: GBP LIBOR less 0.137%) on sterling balances and at Euro Overnight Index Average (EONIA) less 0% (2017: EONIA less 0.1%) on euro balances, unless this results in a negative interest rate in which case no interest is earned. Net interest income in 2018 from STCL was \$7 million (2017: \$5 million).

In 2018, the Company transferred an interest-bearing receivable and an interest-bearing payable at fair value, equal to the carrying amount of the balances at transfer date, from Shell Treasury Luxembourg Sarl (STLB) to Shell Corporate Services Switzerland AG (SCSS). The net amount due to STLB at December 31, 2018, is \$nil (2017: interest-bearing receivable of €1,289 million and an interest-bearing payable of \$4,707 million). Interest on euro balances was calculated at EONIA less 0% (2017: EONIA less 0.1%) unless this resulted in a negative interest rate in which case no interest was earned. Interest on dollar balances was calculated at US LIBOR (2017: US LIBOR). Net interest expense on these balances in 2018 was \$89 million (2017: \$26 million).

The net amount due to SCSS at December 31, 2018, which is repayable on demand, comprises an interest-bearing receivable of €4,690 million (2017: €nil) and an interest-bearing payable of \$8,746 million (2017: \$nil). Interest on euro balances is calculated at EONIA less 0% (2017: EONIA less 0.1%) unless this results in a negative interest rate in which case no interest is earned. Interest on dollar balances is calculated at US LIBOR (2017: US LIBOR). Net interest expense on these balances in 2018 was \$67 million (2017: \$nil).

## OTHER TRANSACTIONS AND BALANCES

The Company periodically enters into forward and spot foreign currency contracts with Treasury companies, which are subsidiaries. There were no open foreign currency contracts at December 31, 2018, or 2017.

The Company settles general and administrative expenses of the Trust, including the auditor's remuneration.

The Company has guaranteed contractual payments totalling \$53,357 million at December 31, 2018 (2017: \$58,527 million), and related interest, in respect of listed debt issued by Shell International Finance B.V.

## 14 AUDITOR'S REMUNERATION

See Note 28 to the Consolidated Financial Statements.

# Independent Auditor's Report to Computershare Trustees (Jersey) Limited as Trustee of the Royal Dutch Shell Dividend Access Trust and the Board of Directors of Royal Dutch Shell plc

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## **TO COMPUTERSHARE TRUSTEES (JERSEY) LIMITED AS TRUSTEE OF THE ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST AND THE BOARD OF DIRECTORS AND SHAREHOLDERS OF ROYAL DUTCH SHELL PLC**

### **Opinion on the Financial Statements**

We have audited the non-statutory financial statements of the Royal Dutch Shell Dividend Access Trust (the Financial Statements) for the year ended December 31, 2018 which comprise the Statement of Income, the Statement of Comprehensive Income, the Balance Sheet, the Statement of Changes in Equity, the Statement of Cash Flows and the related notes 1 to 8. The financial reporting framework that has been applied in their preparation is International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and IFRS as issued by the International Accounting Standards Board (IASB).

In our opinion the Financial Statements:

- give a true and fair view of the Royal Dutch Shell Dividend Access Trust's (the Trust) affairs as at December 31, 2018 and of its income for the year then ended; and
- have been properly prepared both in accordance with IFRS as adopted by the EU and IFRS as issued by the IASB.

### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)). Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report below. We are independent of the Trust in accordance with the ethical requirements that are relevant to our audit of the Financial Statements in the UK, including the Financial Reporting Council's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Conclusions relating to going concern**

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the Trustee of Royal Dutch Shell Dividend Access Trust's (the Trustee) use of the going concern basis of accounting in the preparation of the Financial Statements is not appropriate; or
- the Trustee has not disclosed in the Financial Statements any identified material uncertainties that may cast significant doubt about the Trust's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date of approval of the Financial Statements.

### **Other information**

The other information comprises the information included in the annual report, other than the Financial Statements and our auditor's report thereon. The Board of Directors of Royal Dutch Shell plc,(the Directors) are responsible for the other information.

Our opinion on the Financial Statements does not cover the other information and, we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Financial Statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the Financial Statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

### **Responsibilities of the Trustee**

The Trustee is responsible for the preparation of the Financial Statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustee determines is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, the Trustee is responsible for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustee either intends to liquidate the Trust or to cease operations, or have no realistic alternative but to do so. The Trustee is also required to: present fairly the financial position, financial performance and cash flows of the Trust; select suitable accounting policies in accordance with IAS 8: Accounting Policies, Changes in Accounting Estimates and Errors and then apply them consistently; present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable

# **Independent Auditor's Report to Computershare Trustees (Jersey) Limited as Trustee of the Royal Dutch Shell Dividend Access Trust and the Board of Directors of Royal Dutch Shell plc**

**Continued**

information; make judgements that are reasonable; provide additional disclosures when compliance with the specific requirements in IFRS as adopted by the EU and as issued by the IASB is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Trust's financial position and financial performance; and state whether the Financial Statements have been prepared in accordance with IFRS as adopted by the EU and as issued by the IASB.

## **Auditor's responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Financial Statements.

A further description of our responsibilities for the audit of the Financial Statements is located on the Financial Reporting Council's website at <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor's report.

## **Use of our report**

This report is made solely to the Directors as a body, in accordance with our engagement letter dated November 6, 2018. Our audit work has been undertaken so that we might state to the Trustee and the Directors those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Trust and the Trustee and the Directors as a body, for our audit work, for this report, or for the opinions we have formed.

/s/ Ernst & Young LLP

London

March 13, 2019

1. The maintenance and integrity of the Shell website are the responsibility of the Directors of Royal Dutch Shell plc; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
2. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The report set out above is included for the purposes of Royal Dutch Shell plc's Annual Report and Accounts for 2018 only and does not form part of Royal Dutch Shell plc's Annual Report on Form 20-F for 2018.

# Report of Independent Registered Public Accounting Firm

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## **TO COMPUTERSHARE TRUSTEES (JERSEY) LIMITED AS TRUSTEE OF THE ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST AND THE BOARD OF DIRECTORS AND SHAREHOLDERS OF ROYAL DUTCH SHELL PLC**

### **Opinion on the Financial Statements**

We have audited the accompanying balance sheets of Royal Dutch Shell Dividend Access Trust (the Trust) as of December 31, 2018 and 2017, the related statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "Financial Statements"). In our opinion, the Financial Statements present fairly, in all material respects, the financial position of the Trust at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board and in conformity with IFRS as adopted by the European Union.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Trust's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 13, 2019 expressed an unqualified opinion thereon.

### **Basis for Opinion**

These financial statements are the responsibility of the Trustee of the Trust (the Trustee) and the management of Royal Dutch Shell plc (the management). Our responsibility is to express an opinion on the Trust's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Trust in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Trust's auditor since 2016.

London, United Kingdom

March 13, 2019

## **TO COMPUTERSHARE TRUSTEES (JERSEY) LIMITED AS TRUSTEE OF ROYAL DUTCH SHELL DIVIDEND ACCESS TRUST AND THE BOARD OF DIRECTORS AND SHAREHOLDERS OF ROYAL DUTCH SHELL PLC**

### **Opinion on Internal Control over Financial Reporting**

We have audited Royal Dutch Shell Dividend Access Trust's (the Trust) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control- Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Trust maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Financial Statements of the Trust, and our report dated March 13, 2019, expressed an unqualified opinion thereon.

### **Basis for Opinion**

The Trustee of the Trust (the Trustee) and the management of Royal Dutch Shell plc (the Management) are responsible for maintaining effective internal control over financial reporting and for their assessment of the effectiveness of internal control over financial reporting included in the accompanying Trustee's and Management's Report on Internal Control over Financial Reporting set out on page 104. Our responsibility is to express an opinion on the Trust's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Trust in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

## **Report of Independent Registered Public Accounting Firm Continued**

### **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

#### **Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP  
London, United Kingdom  
March 13, 2019

1. The maintenance and integrity of the Shell website are the responsibility of the Directors of Royal Dutch Shell plc; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
2. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The report set out above is included for the purposes of Royal Dutch Shell plc's Annual Report on Form 20-F for 2018 only and do not form part of Royal Dutch Shell plc's Annual Report and Accounts for 2018.

# Royal Dutch Shell Dividend Access Trust Financial Statements

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## Royal Dutch Shell Dividend Access Trust Financial Statements Continued

<b>Statement of Income</b>			£ million
	2018	2017	2016
Dividend income	5,328	4,567	3,879
Income before taxation and for the period	5,328	4,567	3,879

<b>Statement of Comprehensive Income</b>		£ million	
	2018	2017	2016
Income for the period	5,328	4,567	3,879
Comprehensive income for the period	5,328	4,567	3,879

<b>Balance Sheet</b>		£ million	
	Notes	Dec 31, 2018	Dec 31, 2017
<b>Assets</b>			
Current assets			
Cash and cash equivalents		3	2
Total assets		3	2
<b>Liabilities</b>			
Current liabilities			
Unclaimed dividends	4	3	2
Total liabilities		3	2
<b>Equity</b>			
Capital account	5	—	—
Revenue account		—	—
Total equity		—	—
Total liabilities and equity		3	2

Signed on behalf of Computershare Trustees (Jersey) Limited  
as Trustee of the Royal Dutch Shell Dividend Access Trust

/s/ Karen Kurys

/s/ Martin Fish

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**Karen Kurys**  
March 13, 2019

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**Martin Fish**

### Statement of Changes in Equity

	Notes	Capital account	Revenue account	£ million Total equity
<b>At January 1, 2018</b>		—	—	—
Comprehensive income for the period		—	5,328	5,328
Distributions made	6	—	(5,328)	(5,328)
<b>At December 31, 2018</b>		—	—	—
<b>At January 1, 2017</b>		—	—	—
Comprehensive income for the period		—	4,567	4,567
Distributions made	6	—	(4,567)	(4,567)
<b>At December 31, 2017</b>		—	—	—
<b>At January 1, 2016</b>		—	—	—
Comprehensive income for the period		—	3,879	3,879
Distributions made	6	—	(3,879)	(3,879)
<b>At December 31, 2016</b>		—	—	—

### Statement of Cash Flows

	2018	2017	2016
Income for the period	5,328	4,567	3,879
Adjustment for:			
Dividends received	(5,328)	(4,567)	(3,879)
<b>Cash flow from operating activities</b>	—	—	—
Dividends received	5,328	4,567	3,879
<b>Cash flow from investing activities</b>	5,328	4,567	3,879
Cash distributions made	(5,327)	(4,567)	(3,879)
<b>Cash flow from financing activities</b>	(5,327)	(4,567)	(3,879)
Change in cash and cash equivalents	1	—	—
Cash and cash equivalents at January 1	2	2	2
Cash and cash equivalents at December 31	3	2	2

# Notes to the Royal Dutch Shell Dividend Access Trust Financial Statements

## 1 THE TRUST

The Royal Dutch Shell Dividend Access Trust (the Trust) was established on May 19, 2005, by The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited (Shell Transport), and Royal Dutch Shell plc (the Company). The Trust is governed by the applicable laws of England and Wales and is resident and domiciled in Jersey. The Trust is not subject to taxation. The Trustee of the Trust is Computershare Trustees (Jersey) Limited, registration number 92182 (the Trustee), Queensway House, Hilgrove Street, St Helier, Jersey, JE1 1ES. The Trust was established as part of a dividend access mechanism.

Shell Transport and BG Group Limited (BG), have each issued a dividend access share to the Trustee. Following the announcement of a dividend by the Company on the B shares, Shell Transport and BG may declare a dividend on their dividend access shares.

The primary purposes of the Trust are to receive, on behalf of the B shareholders of the Company and in accordance with their respective holdings of B shares in the Company, any amounts paid by way of dividend on the dividend access shares and to pay such amounts to the B shareholders on the same pro rata basis. The Trust is not subject to significant market risk, credit risk or liquidity risk.

The Trust shall not endure for a period in excess of 80 years from May 19, 2005, being the date on which the Trust Deed was executed.

## 2 THE BASIS OF PREPARATION

The Financial Statements of the Trust have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. As applied to the Trust, there are no material differences from IFRS as issued by the International Accounting Standards Board (IASB); therefore, the Financial Statements have been prepared in accordance with IFRS as issued by the IASB.

The Financial Statements have been prepared under the historical cost convention. The accounting policies described in Note 3 have been applied consistently in all periods presented.

The Financial Statements were approved and authorised for issue by the Trustee on March 13, 2019.

The financial results of the Trust are included in the Consolidated and Parent Company Financial Statements on pages 167-214 and pages 237-246 respectively.

## 3 SIGNIFICANT ACCOUNTING POLICIES

The Trust's accounting policies follow those of Shell as set out in Note 2 to the Consolidated Financial Statements. The following are Trust-specific policies. The adoption of IFRS 9 *Financial Instruments* in 2018 has had no significant impact on the Trust's accounting or disclosures.

### PRESENTATION AND FUNCTIONAL CURRENCY

The Trust's presentation and functional currency is sterling. The Trust's dividend income and dividends paid are principally in sterling.

### DIVIDEND INCOME

Dividends on the dividend access shares are recognised on a paid basis unless the dividend has been confirmed by a general meeting of Shell Transport or BG, in which case income is recognised on the date on which receipt is deemed virtually certain.

### DISTRIBUTIONS MADE

Amounts are recorded as distributed once a wire transfer or cheque is issued. To the extent that cheques expire or are returned unpresented, the Trust records a liability for unclaimed dividends and a corresponding amount of cash.

## 4 UNCLAIMED DIVIDENDS

Unclaimed dividends of £2,816,655 (2017: £2,302,549) include any dividend cheque payments that have not been presented within 12 months, have expired or have been returned unpresented. Dividends which are unclaimed after 12 years will revert to Shell Transport and BG once forfeited.

## 5 CAPITAL ACCOUNT

The capital account is represented by the dividend access share of 25 pence settled in the Trust by Shell Transport and the dividend access share of 10 pence settled in the Trust by BG. There have been no changes in the capital account in the current or prior year.

## 6 DISTRIBUTIONS MADE

Distributions are made to the B shareholders of the Company in accordance with the Trust Deed. See Note 23 to the Consolidated Financial Statements for information about dividends per share. Any wire transfers that are not completed are replaced by cheques.

## **7 RELATED PARTIES**

The Trust received dividend income of £3,470 million (2017: £2,970 million; 2016: £2,533 million) in respect of the dividend access share from Shell Transport and £1,858 million (2017: £1,597 million; 2016: £1,346 million) in respect of the dividend access share from BG. The Trust made distributions of £5,328 million (2017: £4,567 million; 2016: £3,879 million) to the B shareholders of the Company.

The Company pays the general and administrative expenses of the Trust, including the auditor's remuneration.

## **8 AUDITOR'S REMUNERATION**

Auditor's remuneration for 2018 audit services was £33,750 (2017: £33,750; 2016: £33,750).

# Additional Information

## Shareholder information

Royal Dutch Shell plc (the Company) was incorporated in England and Wales on February 5, 2002, as a private company under the Companies Act 1985, as amended. On October 27, 2004, the Company was re-registered as a public company limited by shares and changed its name from Forthdeal Limited to Royal Dutch Shell plc. The Company is registered at Companies House, Cardiff, under company number 4366849, and at the Chamber of Commerce, The Hague, under company number 34179503. The Legal Entity Identifier (LEI) issued by the London Stock Exchange is 21380068P1DRHMJ8KU70. The business address for the Directors and Senior Management is Carel van Bylandlaan 30, 2596 HR, The Hague, The Netherlands.

The Company is resident in the Netherlands for Dutch and UK tax purposes and its primary objective is to carry on the business of a holding company. It is not directly or indirectly owned or controlled by another corporation or by any government and does not know of any arrangements that may result in a change of control of the Company.

### NATURE OF TRADING MARKET

The Company has two classes of ordinary shares: A and B shares. The principal trading market for A shares is Euronext Amsterdam and the principal trading market for B shares is the London Stock Exchange. Ordinary shares are traded in registered form.

A and B American Depository Shares (ADSs) are listed on the New York Stock Exchange [A]. A depositary receipt is a certificate that evidences ADSs. Depositary receipts are issued, cancelled and exchanged at the office of JP Morgan Chase Bank, N.A., 383 Madison Avenue, New York, New York 10179, USA, as depositary (the Depositary), under a deposit agreement between the Company, the Depositary and the holders of ADSs [B]. Each ADS represents two €0.07 shares of Royal Dutch Shell plc deposited under the agreement. More information relating to ADSs is given on page 259.

[A] At February 15, 2019, 444,857,258 A ADSs and 323,849,655 B ADSs were outstanding, representing 20% and 17% of the respective share capital class, held by 5,410 and 926 holders of record with an address in the USA, respectively. In addition to holders of ADSs, at February 15, 2019, 25,537 A shares and 949,113 B shares of €0.07 each were outstanding, representing 0.000% and 0.011% of the respective share capital class, held by 314 and 3,095 holders of record registered with an address in the USA, respectively.

[B] JP Morgan Chase Bank, N.A. were appointed as Depositary with effect from November 1, 2018, in succession to The Bank of New York Mellon, 101 Barclay Street, New York, NY 10286, USA.

### Listing information

	A shares	B shares
Ticker symbol London	RDSA	RDSB
Ticker symbol Amsterdam	RDSA	RDSB
Ticker symbol New York (ADS [A])	RDS.A	RDS.B
ISIN Code	GB00B03MLX29	GB00B03MM408
CUSIP	G7690A100	G7690A118
SEDOL Number London	B03MLX2	B03MM40
SEDOL Number Euronext	B09CBL4	B09CBN6
Weighting on FTSE at 31/12/18	6.17%	5.16%
Weighting on AEX at 31/12/18	16.17%	not included

[A] Each A ADS represents two A shares of €0.07 each and each B ADS represents two B shares of €0.07 each.

### SHARE CAPITAL

The issued and fully paid share capital of the Company at February 15, 2019, was as follows:

#### Share capital

	Issued and fully paid	
	Number	Nominal value
Ordinary shares of €0.07 each		
A shares	4,441,269,079	€310,888,836
B shares	3,745,486,731	€262,184,071
Sterling deferred shares of £1 each	50,000	£50,000

The Directors may only allot new ordinary shares if they have authority from shareholders to do so. The Company seeks to renew this authority annually at its Annual General Meeting (AGM). Under the resolution passed at the Company's 2018 AGM, the Directors were granted authority to allot ordinary shares up to an aggregate nominal amount equivalent to approximately one-third of the issued ordinary share capital of the Company (in line with the guidelines issued by institutional investors).

The following is a summary of the material terms of the Company's ordinary shares, including brief descriptions of the provisions contained in the Articles of Association (the Articles) and applicable laws of England and Wales in effect on the date of this document. This summary does not purport to include complete statements of these provisions:

- upon issuance, A and B shares are fully paid and free from all liens, equities, charges, encumbrances and other interest of the Company and not subject to calls of any kind;
- all A and B shares rank equally for all dividends and distributions on ordinary share capital; and
- A and B shares are admitted to the Official List of the UK Financial Conduct Authority and to trading on the market for listed securities of the London Stock Exchange. A and B shares are also admitted to trading on Euronext Amsterdam. A and B ADSs are listed on the New York Stock Exchange.

At December 31, 2018, trusts and trust-like entities holding shares for the benefit of employee share plans of Shell held (directly and indirectly) 38 million shares of the Company with an aggregate market value of \$1,128 million and an aggregate nominal value of €3 million.

## SIGNIFICANT SHAREHOLDINGS

The Company's A and B shares have identical voting rights, and accordingly the Company's major shareholders do not have different voting rights.

### SIGNIFICANT DIRECT SHAREHOLDINGS

Direct holdings of 3% or more of A and B shares combined held by registered members representing the interests of underlying investors at December 31, 2018, are given below.

#### Direct shareholdings

	A shares		B shares		Total	
	Number	%	Number	%	Number	%
Euroclear Nederland	1,795,621,266	40.15	15,022,439	0.40	1,810,643,705	22.03
Guaranty (Nominees) Limited	883,221,124	19.75	635,818,258	16.98	1,519,039,382	18.49
State Street Nominees Limited	172,015,005	3.85	191,471,980	5.11	363,486,985	4.42
Chase Nominees Limited	60,547,031	1.35	260,984,315	6.97	321,531,346	3.91

### SIGNIFICANT INDIRECT SHAREHOLDINGS

Interests of investors with 3% or more of A and B shares combined at December 31, 2018, are given below.

#### Indirect shareholdings

	A shares		B shares		Total	
	Number	%	Number	%	Number	%
BlackRock, Inc.	334,842,363	7.49	256,790,694	6.86	591,633,057	7.20
The Capital Group Companies, Inc.	66,006,890	1.48	401,977,309	10.73	467,984,199	5.70
The Vanguard Group, Inc.	199,027,711	4.45	132,605,115	3.54	331,632,826	4.04

### NOTIFICATION OF MAJOR SHAREHOLDINGS

The Company did not receive any notifications pursuant to Disclosure Guidance and Transparency Rule (DTR) 5 during the year.

#### Investor

	A shares		B shares		Total[B]	
	Number	%	Number	%	Number	%
BlackRock, Inc. [A]	277,045,557	6.10	218,422,847	5.83	495,468,404	5.97

[A] The information provided is derived from the most recent notification, received in 2017. This includes the percentage figures shown, which align with the issued capital as at the date of notification.

[B] Excludes financial instruments according to Art. 13(l)(a) of Directive 2004/109/EC (DTR 5.3.1.1 (a)) and financial instruments with similar economic effect according to Art. 13(l)(b) of Directive 2004/109/EC (DTR 5.3.1.1 (b)).

The Company did not receive any notifications pursuant to DTR 5 in the period from December 31, 2018, to February 15, 2019, (being a date not more than one month prior to the date of the Company's Notice of Annual General Meeting).

## Shareholder information Continued

### DIVIDENDS

The following tables show the dividends on each class of share and each class of ADS for the years 2014 - 2018.

<b>A and B shares</b>		<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	\$ <b>2014</b>
Q1		0.47	0.47	0.47	0.47	0.47
Q2		0.47	0.47	0.47	0.47	0.47
Q3		0.47	0.47	0.47	0.47	0.47
Q4		0.47	0.47	0.47	0.47	0.47
Total announced in respect of the year		1.88	1.88	1.88	1.88	1.88

<b>A shares</b>		<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	€ [A] <b>2014</b>
Q1		0.40	0.42	0.42	0.42	0.35
Q2		0.40	0.39	0.42	0.42	0.36
Q3		0.41	0.40	0.44	0.43	0.38
Q4		0.42	0.38	0.44	0.42	0.43
Total announced in respect of the year		1.64	1.59	1.72	1.69	1.53
Amount paid during the year		1.60	1.65	1.70	1.71	1.42

[A] Euro equivalent, rounded to the nearest euro cent.

<b>B shares</b>		<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	Pence [A] <b>2014</b>
Q1		35.18	37.12	32.98	30.75	28.03
Q2		36.50	36.28	35.27	30.92	29.09
Q3		36.77	35.02	37.16	31.07	30.16
Q4		35.94	33.91	38.64	32.78	31.20
Total announced in respect of the year		144.39	142.33	144.05	125.52	118.48
Amount paid during the year		142.36	147.06	138.19	123.94	114.16

[A] Sterling equivalent.

<b>A and B ADSs</b>		<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	\$ <b>2014</b>
Q1		0.94	0.94	0.94	0.94	0.94
Q2		0.94	0.94	0.94	0.94	0.94
Q3		0.94	0.94	0.94	0.94	0.94
Q4		0.94	0.94	0.94	0.94	0.94
Total announced in respect of the year		3.76	3.76	3.76	3.76	3.76
Amount paid during the year		3.76	3.76	3.76	3.76	3.72

## **METHOD OF HOLDING SHARES OR AN INTEREST IN SHARES**

There are several ways in which Royal Dutch Shell plc registered shares or an interest in these shares can be held, including:

- directly as registered shares either in uncertificated form or in certificated form in a shareholder's own name;
- indirectly through Euroclear Nederland (in respect of which the Dutch Securities Giro Act ("Wet giraal effectenverkeer") is applicable);
- through the Royal Dutch Shell Corporate Nominee Service;
- through another third-party nominee or intermediary company; and
- as a direct or indirect holder of either an A or a B ADS with the Depositary

## **AMERICAN DEPOSITORY SHARES**

Effective November 1, 2018, J.P. Morgan Chase Bank, N.A. serves as successor depositary for our ADS programme. A copy of the Form of Amended and Restated Deposit Agreement with J.P. Morgan Chase Bank, N.A. ("Depositary") was filed with the SEC as an Exhibit to our Form F-6 filed on October 19, 2018 ("Deposit Agreement").

The Depositary is the registered shareholder of the shares underlying the A or B ADSs and enjoys the rights of a shareholder under the Articles. Holders of ADSs will not have shareholder rights. The rights of the holder of an A or a B ADS are specified in the Deposit Agreement with the Depositary and are summarised below.

The Depositary will receive all cash dividends and other cash distributions made on the deposited shares underlying the ADSs and, where possible and on a reasonable basis, will distribute such dividends and distributions to holders of ADSs. Rights to purchase additional shares will also be made available to the Depositary who may make such rights available to holders of ADSs. All other distributions made on the Company's shares will be distributed by the Depositary in any means that the Depositary thinks is equitable and practical. The Depositary may deduct its fees and expenses and the amount of any taxes owed from any payments to holders and it may sell a holder's deposited shares to pay any taxes owed. The Depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to holders of ADSs.

The Depositary will notify holders of ADSs of shareholders' meetings of the Company and will arrange to deliver voting materials to such holders of ADSs if requested by the Company. Upon request by a holder, the Depositary will endeavour to appoint such holder as proxy in respect of such holder's deposited shares entitling such holder to attend and vote at shareholders' meetings. Holders of ADSs may also instruct the Depositary to vote their deposited securities and the Depositary will try, as far as practical and lawful, to vote deposited shares in accordance with such instructions. The Company cannot ensure that holders will receive voting materials or otherwise learn of an upcoming shareholders' meeting in time to ensure that holders can instruct the Depositary to vote their shares.

Upon payment of appropriate fees, expenses and taxes: (i) shareholders may deposit their shares with the Depositary and receive the corresponding class and amount of ADSs; and (ii) holders of ADSs may surrender their ADSs to the Depositary and have the corresponding class and amount of shares credited to their account.

Further, subject to certain limitations, holders may, at any time, cancel ADSs and withdraw their underlying shares or have the corresponding class and amount of shares credited to their account.

## **FEES PAID BY HOLDERS OF ADSs**

The Depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The Depositary may generally refuse to provide fee-attracting services until its fees for those services are paid. See page 260.

## **PAYMENTS BY DEPOSITORY TO THE COMPANY**

J.P. Morgan Chase Bank, N.A., as Depositary, has agreed to share with the Company portions of certain fees collected, less ADS programme expenses paid by the Depositary. For example, these expenses include the Depositary's annual programme fees, transfer agency fees, custody fees, legal expenses, postage and envelopes for mailing annual and interim financial reports, printing and distributing dividend cheques, electronic filing of US federal tax information, mailing required tax forms, stationery, postage, facsimile and telephone calls and the standard out-of-pocket maintenance costs for the ADSs. From January 1, 2018, to February 15, 2019, the Company received \$2,832,296 from the former depositary and \$nil from the Depositary.

## **DIVIDEND REINVESTMENT PLAN**

Equiniti Financial Services Limited, part of the same group of companies as the Company's Registrar, Equiniti Limited, operates a Dividend Reinvestment Plan ("DRIP") which enables RDS shareholders to elect to have their dividend payments used to purchase RDS shares of the same class as those already held by them. More information can be found at [www.shareview.co.uk/info/drip](http://www.shareview.co.uk/info/drip) or by contacting Equiniti.

ABN AMRO Bank N.V. and JP Morgan Chase Bank N.A. also operate dividend reinvestment options. More information can be found by contacting the relevant provider.

## Shareholder information Continued

Persons depositing or withdrawing shares must pay:	For:
\$5.00 or less per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including those resulting from a distribution of shares, rights or other property; Cancellation of ADSs for the purpose of their withdrawal, including if the deposit agreement terminates; and Distribution of securities to holders of deposited securities by the Depositary to ADS registered holders.
Registration and transfer fees	Registration and transfer of shares on the share register to or from the name of the Depositary or its agent when they deposit or withdraw shares.
Expenses of the Depositary	Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement); and Converting foreign currency into dollars.
Taxes and other governmental charges the Depositary or the custodian has to pay on any ADS or share underlying an ADS, for example, share transfer taxes, stamp duty or withholding taxes	As necessary.

In addition to the above, the Depositary may charge: (i) a dividend fee of \$5.00 or less per 100 ADSs (or portion of 100 ADSs) for cash dividends or issuance of ADSs resulting from share dividends and (ii) an administrative fee of \$5.00 or less per 100 ADSs (or portion of 100 ADSs) per calendar year. The Company and Depositary have agreed not to charge these fees at this time.

### EXCHANGE CONTROLS AND OTHER LIMITATIONS AFFECTING SECURITY HOLDERS

Other than restrictions affecting those individuals, entities, government bodies, corporations or agencies that are subject to European Union (EU) sanctions, for example, regarding Syria, and those sanctions adopted by the government of the UK, and the general EU prohibition to transfer funds to and from North Korea, we are not aware of any other legislative or other legal provision currently in force in the UK, the Netherlands or arising under the Articles restricting remittances to holders of the Company's ordinary shares who are non-residents of the UK, or affecting the import or export of capital.

### TAXATION GENERAL

The Company is incorporated in England and Wales and tax-resident in the Netherlands. As a tax resident of the Netherlands, it is generally required by Dutch law to withhold tax at a rate of 15% on dividends on its ordinary shares and ADSs, subject to the provisions of any applicable tax convention or domestic law. Depending on their particular circumstances, non-Dutch tax-resident holders may be entitled to a full or partial refund of Dutch withholding tax. The following sets forth the operation of other provisions on dividends on the Company's various ordinary shares and ADSs to UK and US holders, as well as certain other tax rules pertinent to holders. Holders should consult their own tax adviser if they are uncertain as to the tax treatment of any dividend.

### DIVIDENDS PAID ON THE DIVIDEND ACCESS SHARES

There is no Dutch withholding tax on dividends on B shares or B ADSs, provided that such dividends are paid on the dividend access shares pursuant to the dividend access mechanism (see "Dividend access mechanism for B shares" on page 108). Dividends paid on the dividend

access shares are treated as UK-source for tax purposes and there is no UK withholding tax on them.

In 2018, all dividends with respect to B shares and B ADSs were paid on the dividend access shares pursuant to the dividend access mechanism.

### DUTCH WITHHOLDING TAX

When Dutch withholding tax applies on dividends paid to a US holder (that is, dividends on A shares or A ADSs, or on B shares or B ADSs that are not paid on the dividend access shares pursuant to the dividend access mechanism), the US holder will be subject to Dutch withholding tax at the rate of 15%. A US holder who is entitled to the benefits of the 1992 Double Taxation Convention (the Convention) between the USA and the Netherlands as amended by the protocol signed on March 8, 2004, will be entitled to a reduction in the Dutch withholding tax, either by way of a full or a partial exemption at source or by way of a partial refund or a credit as follows:

- if the US holder is an exempt pension trust as described in article 35 of the Convention, or an exempt organisation as described in article 36 thereof, the US holder will be exempt from Dutch withholding tax; or
- if the US holder is a company that holds directly at least 10% of the voting power in the Company, the US holder will be subject to Dutch withholding tax at a rate not exceeding 5%.

In general, the entire dividend (including any amount withheld) will be dividend income to the US holder and the withholding tax will be treated as a foreign income tax that is eligible for credit against the US holder's income tax liability or a deduction subject to certain limitations. A "US holder" includes, but is not limited to, a citizen or resident of the USA, or a corporation or other entity organised under the laws of the USA or any of its political subdivisions.

When Dutch withholding tax applies on dividends paid to UK tax-resident holders (that is, dividends on A shares or A ADSs, or on B shares or B ADSs that are not paid on the dividend access shares pursuant to the dividend access mechanism), the dividend will typically be subject to withholding tax at a rate of 15%. Such UK tax-resident holder may be entitled to a credit (not repayable) for withholding tax against their UK tax liability. However,

certain corporate shareholders are, subject to conditions, exempt from UK tax on dividends. Withholding tax suffered cannot be offset against such exempt dividends. UK tax-resident holders should also be entitled to claim a refund of one-third of the Dutch withholding tax from the Dutch tax authorities in reliance on the tax convention between the Netherlands and the UK. Pension plans meeting certain defined criteria can, however, be entitled to claim a full refund or exemption at source of the dividend tax withheld. Also, UK tax-resident corporate shareholders holding at least a 5% shareholding and meeting other defined criteria are exempted at source from dividend tax.

For holders who are tax-resident in any other country, the availability of a whole or partial exemption or refund of Dutch withholding tax is governed by Dutch tax law and/or the tax convention, if any, between the Netherlands and the country of the holder's residence.

There may be other grounds on which holders who are tax-resident in the UK, the USA or any other country can obtain a full or partial refund of the Dutch withholding tax, depending on their particular circumstances; see "Taxation: General" above.

#### DUTCH CAPITAL GAINS TAXATION

Capital gains on the sale of shares of a Dutch tax-resident company by a US holder are generally not subject to taxation by the Netherlands unless the US holder has a permanent establishment therein and the capital gain is derived from the sale of shares that are part of the business property of the permanent establishment.

#### DUTCH SUCCESSION DUTY AND GIFT TAXES

Shares of a Dutch tax-resident company held by an individual who is not a resident or a deemed resident of the Netherlands will generally not be subject to succession duty in the Netherlands on the individual's death.

A gift of shares of a Dutch tax-resident company by an individual who is not a resident or a deemed resident of the Netherlands is generally not subject to Dutch gift tax.

#### UK STAMP DUTY AND STAMP DUTY RESERVE TAX

Sales or transfers of the Company's ordinary shares within a clearance service (such as Euroclear Nederland) or of the Company's ADSs within the ADS depositary receipts system will not give rise to a stamp duty reserve tax (SDRT) liability and should not in practice require the payment of UK stamp duty.

The transfer of the Company's ordinary shares to a clearance service (such as Euroclear Nederland) or to an issuer of depositary shares (such as ADSs) will generally give rise to a UK stamp duty or SDRT liability at the rate of 1.5% of consideration given or, if none, of the value of the shares. A sale of the Company's ordinary shares that are not held within a clearance service (for example, settled through the UK's CREST system of paperless transfers) will generally be subject to UK stamp duty or SDRT at the rate of 0.5% of the amount of the consideration, normally paid by the purchaser.

#### CAPITAL GAINS TAX

For the purposes of UK capital gains tax, the market values [A] of the shares of the former public parent companies of the Royal Dutch/Shell Group at the relevant dates were:

	£	
	March 31, 1982	July 20, 2005
Royal Dutch Petroleum Company (N.V. Koninklijke Nederlandsche Petroleum Maatschappij) which ceased to exist on December 21, 2005	1.1349	17.6625
The "Shell" Transport and Trading Company, p.l.c. which delisted on July 19, 2005	1.4502	Not applicable

[A] Restated where applicable to reflect all capitalisation issues since the relevant date. This includes the change in the capital structure in 2005, when Royal Dutch Shell plc became the single parent company of Royal Dutch Petroleum Company and of The "Shell" Transport and Trading Company, p.l.c., now The Shell Transport and Trading Company Limited, and one share in Royal Dutch Petroleum Company was exchanged for two Royal Dutch Shell plc A shares and one share in The "Shell" Transport and Trading Company, p.l.c. was exchanged for 0.287333066 Royal Dutch Shell plc B shares.

# Section 13(R) of the US Securities Exchange Act of 1934 disclosure

In accordance with our General Business Principles and Code of Conduct, Shell seeks to comply with all applicable international trade laws including applicable sanctions and embargoes.

The activities listed below have been conducted outside the USA by non-US affiliates of Royal Dutch Shell plc. None of the payments disclosed below were made in US dollars, nor are any of the balances disclosed below held in US dollars; however, for disclosure purposes, all have been converted into US dollars at the appropriate exchange rate. We do not believe that any of the transactions or activities listed below violated US sanctions.

In 2018, we settled a receivable of \$10.5 million with the National Iranian Oil Company (NIOC) associated with our previous upstream activities conducted prior to the imposition of European Union sanctions against a payable for freight and ancillary services in relation to oil cargoes purchased in 2016. The net payable of \$1.0 million was paid to NIOC in March 2018.

In 2017, we entered into a technology licence agreement with Petrochemical Industries Design and Engineering Company (PIDEK) to provide licence and engineering services to Abadan Oil Refinery Company (AORC) in relation to Cansolv sulphur dioxide (SO<sub>2</sub>) scrubbing technology, as well as a separate end-user licence agreement with AORC for a continuing licence for the Cansolv SO<sub>2</sub> technology once PIDEK's work at Abadan has been completed. In addition, a separate agreement was signed at the same time between Shell, the Iran branch of Shell Development B.V. (SDI) and PIDEK, for the arrangement of payments due under the licence and engineering agreement to be made to SDI in Iran. In 2018, these agreements generated gross revenue of \$691,768 and an estimated net profit of \$438,131. At December 31, 2018, we have a receivable outstanding of \$691,768. In October 2018, we sent notices of termination with respect to these two agreements.

In addition, at December 31, 2018, we have a receivable of \$1.2 million outstanding with Hamedan Ibn Sina Petrochemical Company associated with a technology licence agreement signed in 2016. In October 2018, we sent notice of suspension with respect to this agreement.

In May 2018, we agreed to extend the term of a memorandum of understanding (MOU) originally signed in 2016 with the NIOC to cover a joint review of a number of oil and gas opportunities. This amendment extends the term of the MOU to August 6, 2018. There was no gross revenue or net profit associated with this transaction.

In 2018, we received gross revenue of \$228,441 into our account at Karafarin Bank from Bank Mellat in relation to advisory services provided to Marun Petrochemical Company, pursuant to an advisory agreement entered into in June 2017. No net profit was associated with these services in 2018.

In October 2018, we paid \$2.1 million to National Iranian Tanker Company pursuant to a charter party agreement entered into in May 2017. This payment constituted full settlement of all obligations under the charter party agreement.

In 2018, we paid \$18,812 for the clearance of overflight permits for Shell aircraft over Iranian airspace, and \$6,352 for handling costs, to the Iranian Civil Aviation Authority. There was no gross revenue or net profit associated with these transactions. On occasion, our aircraft may be routed over Iran and therefore these payments may continue in the future.

In 2018, Shell employees met with Iranian officials in Iran. In relation to these travelling Shell employees, \$6,336 was paid to Iranian authorities for visas and \$688 for exit fees; \$190 was paid to Bimeh Insurance Company for travel insurance; and \$853 was paid to Iranian airlines for flight tickets. Additionally, \$246 visa costs were incurred by non-US affiliates. We also discovered \$294 in visa costs for Shell employees and \$142 visa costs incurred by non-US affiliates in relation to 2017 that were not previously disclosed. Using an agent, CIBT Visumdienst B.V, we also paid a \$62 consular fee to an Iranian embassy. There was no gross revenue or net profit associated with these transactions. We have ceased these discussions and do not expect similar payments in the future.

In 2018, we provided downstream retail services to the Iranian Embassy in Switzerland and to the International Islamic Liquidity Management Corporation in Malaysia. These transactions generated gross revenue of \$4,064 and an estimated net profit of \$236 in Switzerland and \$979 gross revenue and an estimated net profit of \$57 in Malaysia. We have no contractual agreements with these parties.

We maintain accounts with Karafarin Bank, where our cash deposits (balance of \$5.0 million at December 31, 2018) generated non-taxable interest income of \$0.3 million in 2018, and we paid \$351 in bank charges. We have made payments amounting to \$1.4 million through our account in Karafarin Bank to a variety of non-sanctioned parties.

# Non-GAAP measures reconciliations

These non-GAAP measures, also known as alternative performance measures, are financial measures other than those defined in International Financial Reporting Standards which Shell considers provide useful information.

## EARNINGS ON A CURRENT COST OF SUPPLIES BASIS

Segment earnings are presented on a current cost of supplies basis (CCS earnings), which is the earnings measure used by the Chief Executive Officer for the purposes of making decisions about allocating resources and assessing performance. On this basis, the purchase price of volumes sold during the period is based on the current cost of supplies during the same period after making allowance for the tax effect. CCS earnings therefore exclude the effect of changes in the oil price on inventory carrying amounts. The current cost of supplies adjustment does not impact Cash flow from operating activities in the "Consolidated Statement of Cash Flows".

### Reconciliation of CCS earnings to

#### income for the period

	\$ million		
	2018	2017	2016
Earnings on a current cost of supplies basis (CCS earnings)	24,364	12,471	3,692
Attributable to non-controlling interest	(531)	(390)	(159)
Earnings on a current cost of supplies basis attributable to Royal Dutch Shell plc shareholders	23,833	12,081	3,533
Current cost of supplies adjustment	(458)	964	1,085
Non-controlling interest	(23)	(68)	(43)
Income attributable to Royal Dutch Shell plc shareholders	23,352	12,977	4,575
Non-controlling interest	554	458	202
Income for the period	23,906	13,435	4,777

## CAPITAL INVESTMENT

Capital investment is a measure used to make decisions about allocating resources and assessing performance.

### Capital investment reconciliation

	\$ million		
	2018	2017	2016
Capital expenditure [A]	23,011	20,845	22,116
Capital investment related to the acquisition of BG Group plc	–	–	52,904
Investments in joint ventures and associates [A]	880	595	1,330
Exploration expense, excluding exploration wells written off	889	1,048	1,274
Finance leases	452	1,074	2,343
Other	(453)	444	(90)
Capital investment	24,779	24,006	79,877
Of which			
Integrated Gas	4,460	3,827	26,214
Upstream	12,525	13,648	47,507
Downstream	7,564	6,416	6,057
Corporate	230	115	99

[A] Included within Cash flow from investing activities in the "Consolidated Statement of Cash Flows".

## DIVESTMENTS

Divestments is a measure used to monitor the progress of our divestment programme. This measure comprises proceeds from sale of property, plant and equipment and businesses, joint ventures and associates, and other Integrated Gas, Upstream and Downstream investments in equity securities, adjusted onto an accruals basis and for any share consideration received or contingent consideration initially recognised upon the related divestment, as well as proceeds from sale of interests in entities while retaining control (for example, proceeds from sale of interests in Shell Midstream Partners, L.P.).

Divestments reconciliation	\$ million		
	2018	2017	2016
Proceeds from sale of property, plant and equipment and businesses [A]	4,366	8,808	2,072
Proceeds from sale of joint ventures and associates [A]	1,594	2,177	1,565
Share and contingent consideration [B]	194	3,046	275
Proceeds from sale of interests in entities while retaining control [C]	673	278	1,108
Other	275	3,031 [D]	(36)
Divestments	7,102	17,340	4,984
Of which			
Integrated Gas	3,124	3,077	352
Upstream	2,198	11,542	1,726
Downstream	1,718	2,703	2,889
Corporate	62	18	17

[A] Included within Cash flow from investing activities in the "Consolidated Statement of Cash Flows".

[B] With effect from 2017, this is valued at the date of the related divestment. In future periods, the proceeds from any disposal of shares received as divestment consideration, and proceeds from realisation of contingent consideration, will be included in Cash flow from investing activities. In 2017, it mainly comprised \$2,829 million for shares in Canadian Natural Resources Limited (CNRL) received as partial consideration in the oil sands divestment. In 2018, these shares were sold for \$3,307 million.

[C] Included within "Change in non-controlling interest" in Cash flow from financing activities in the "Consolidated Statement of Cash Flows".

[D] Includes proceeds of \$2,635 million from the sale of shares in Woodside Petroleum Limited.

## Non-GAAP measures reconciliations Continued

### OPERATING EXPENSES

Operating expenses is a measure of Shell's cost management performance, comprising items from the "Consolidated Statement of Income" as follows.

Operating expenses	\$ million		
	2018	2017	2016
Production and manufacturing expenses	26,970	26,652	28,434
Selling, distribution and administrative expenses	11,360	10,509	12,101
Research and development	986	922	1,014
Total	39,316	38,083	41,549
Of which			
Integrated Gas	6,014	5,471	6,479
Upstream	12,157	12,656	14,501
Downstream	20,743	19,583	19,681
Corporate	402	373	888

### RETURN ON AVERAGE CAPITAL EMPLOYED

Return on average capital employed (ROACE) measures the efficiency of our utilisation of the capital that we employ. In this calculation, ROACE is defined as income for the period, adjusted for after-tax interest expense, as a percentage of the average capital employed for the period. Capital employed consists of total equity, current debt and non-current debt.

Calculation of return on average capital employed	\$ million		
	2018	2017	2016
Income for the period	23,906	13,435	4,777
Interest expense after tax	2,513	2,995	2,730
Income before interest expense	26,419	16,430	7,507
Capital employed - opening	283,477	280,988	222,500
Capital employed - closing	279,358	283,477	280,988
Capital employed - average	281,417	282,233	251,744
ROACE	9.4%	5.8%	3.0%

### FREE CASH FLOW

Free cash flow is used to evaluate cash available for financing activities, including dividend payments, after investment in maintaining and growing our business. It is defined as follows.

Free cash flow	\$ million		
	2018	2017	2016
Cash flow from operating activities	53,085	35,650	20,615
Cash flow from investing activities	(13,659)	(8,029)	(30,963)
Free cash flow	39,426	27,621	(10,348)

# Index to the Exhibits

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Exhibit No.	Description	Page
1.1	Memorandum of Association of Royal Dutch Shell plc, together with a special resolution of Royal Dutch Shell plc dated May 18, 2010, (incorporated by reference to Exhibit 4.12 to the Registration Statement on Form F-3 (No. 333-177588) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on October 28, 2011).	
1.2	Articles of Association of Royal Dutch Shell plc, together with a special resolution of Royal Dutch Shell plc dated May 18, 2010, (incorporated by reference to Exhibit 4.11 to the Registration Statement on Form F-3 (No. 333-177588) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on October 28, 2011).	
2.1	Amended and Restated Dividend Access Trust Deed dated December 22, 2015, (incorporated by reference to Exhibit 2 to the Annual Report for the fiscal year ended December 31, 2015, on Form 20-F (File No. 001-32575) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on March 10, 2016).	
2.2	Senior Debt Securities Indenture among Shell International Finance B.V., as issuer, Royal Dutch Shell plc, as guarantor, and Deutsche Bank Trust Company Americas, as trustee, dated June 27, 2006, (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form F-3ASR (No. 333-222005) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on December 12, 2017).	
4.1	Shell Provident Fund Regulations and Trust Agreement, as amended (incorporated by reference to Exhibit 4.7 to the Post-Effective Amendment to Registration Statement on Form S-8 (No. 333-126715) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on June 18, 2007).	
4.2	Form of Director Indemnity Agreement (incorporated by reference to Exhibit 4.3 to the Annual Report for the fiscal year ended December 31, 2005, on Form 20-F (File No. 001-32575) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on March 13, 2006).	
4.3	Form of contract of employment for Executive Directors (incorporated by reference to Exhibit 4.5 to the Annual Report for fiscal year ended December 31, 2013, on Form 20-F (File No. 001-32575) of Royal Dutch Shell plc filed with the US Securities and Exchange Commission on March 13, 2014).	
4.4	Form of Letter of appointment for Non-executive Directors.	
7.1	Calculation of Return on Average Capital Employed (ROACE) (incorporated by reference to page 263 herein).	
7.2	Calculation of gearing (incorporated by reference to page 27 and Note 14 to the Consolidated Financial Statements on page 191 herein).	
8.1	Significant Shell subsidiaries at December 31, 2018.	E1
12.1	Section 302 Certification of Royal Dutch Shell plc.	E20
12.2	Section 302 Certification of Royal Dutch Shell plc.	E21
13.1	Section 906 Certification of Royal Dutch Shell plc.	E22
99.1	Consent of Ernst & Young LLP, London, United Kingdom.	E23
99.2	Consent of Ernst & Young LLP, London, United Kingdom, relating to the Royal Dutch Shell Dividend Access Trust.	E24
101	Interactive data files.	

# Signatures

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The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorised the undersigned to sign the Annual Report on Form 20-F on its behalf.

Royal Dutch Shell plc

/s/ Ben van Beurden

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**Ben van Beurden**

Chief Executive Officer

March 13, 2019

# Exhibit 8.1

## SIGNIFICANT SUBSIDIARIES AND OTHER RELATED UNDERTAKINGS (AUDITED)

Significant subsidiaries and other related undertakings at December 31, 2018, are set out below. Significant subsidiaries are shaded and each meets the threshold specified under Rule 1.02(w) of Regulation S-X. Shell's percentage of share capital is shown to the nearest whole number. All subsidiaries have been included in the "Consolidated Financial Statements" on pages 167-214, and those held directly by the Company are marked with the footnote [a]. A number of the entities listed are dormant or not yet operational. Entities that are proportionately consolidated are identified by the footnote [b]. Shell-owned shares are ordinary (voting) shares unless identified with one of the following annotations against the company name: [c] Membership interest; [d] Partnership capital; [e] Non-redeemable; [f] Ordinary, Membership interest; [g] Ordinary, Non-redeemable; [h] Ordinary, Partnership capital; [i] Ordinary, Redeemable; [j] Ordinary, Redeemable, Non-redeemable; and [k] Redeemable, Non-redeemable.

Company by country of incorporation	Address of registered office	%
<b>ARGENTINA</b>		
O & G Developments Ltd S.A.	Av. Pte. Roque Sáenz Pena 788, 4th floor, Buenos Aires, 1383	100
<b>AUSTRALIA</b>		
Arrow Energy Holdings Pty Ltd	Level 39, 111 Eagle Street, Brisbane, QLD 4000	50
Austen & Butta Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
BC 789 Holdings Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
BG CPS Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
BNG (Surat) Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Condamine 1 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Condamine 2 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Condamine 3 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Condamine 4 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Condamine Power Station Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Fuelink Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
New South Oil Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
North West Shelf LNG Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
OME Resources Australia Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Petroleum Resources (Thailand) Pty. Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
Provident & Pensions Holdings Proprietary Limited	Shell House, 562 Wellington Street, Perth, WA 6000	100
Pure Energy Resources Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
QCLNG Operating Company Pty Ltd [i]	Level 30, 275 George Street, Brisbane, QLD 4000	75
QCLNG Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC [B7] Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC (Exploration) Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC (Infrastructure) Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Common Facilities Company Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 2 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 3 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 4 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 5 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 6 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 7 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 8 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Holdings 9 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Midstream Holdings Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Midstream Investments Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Midstream Land Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Midstream Limited Partnership	Level 42, Bourke Place, 600 Bourke Street, Melbourne, VIC 3000	100
QGC Midstream Services Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Northern Forestry Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Sales Qld Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 1 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 1 Tolling Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 1 UJV Manager Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 2 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 2 Tolling No.2 Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 2 Tolling Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Train 2 UJV Manager Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Upstream Finance Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Upstream Holdings Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Upstream Investments Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
QGC Upstream Limited Partnership	Level 42, Bourke Place, 600 Bourke Street, Melbourne, VIC 3000	100
Queensland Gas Company Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100

Company by country of incorporation	Address of registered office	%
Roma Petroleum Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
SASF Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
SGA [Queensland] Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
SGAI Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
Shell Australia FLNG Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Australia Lubricants Production Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Australia Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Australia Services Company Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Custodian Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Development (PSC19) Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Development (PSC20) Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Energy Australia Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Shell Energy Holdings Australia Limited	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Energy Investments Australia Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell Global Solutions Australia Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Shell New Energies Australia Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Shell Tankers Australia Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Starzap Pty Ltd	Level 30, 275 George Street, Brisbane, QLD 4000	100
Sunshine 685 Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
Sunshine Gas Pty Limited	Level 30, 275 George Street, Brisbane, QLD 4000	100
Trident LNG Shipping Services Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Trident Shipping Services Pty Ltd	Shell House, 562 Wellington Street, Perth, WA 6000	100
Walloons Coal Seam Gas Company Pty Limited [i]	Level 30, 275 George Street, Brisbane, QLD 4000	75
<b>AUSTRIA</b>		
Salzburg Fuelling GmbH	Innsbrucker Bundesstrasse 95, Salzburg, 5020	33
Shell Austria Gesellschaft mbH	Tech Gate, Donau-City-Str. 1, Vienna, 1220	100
Shell Brazil Holding GmbH	Tech Gate, Donau-City-Str. 1, Vienna, 1220	100
Shell China Holding GmbH	Schulhof 6/1, Vienna, 1010	100
TBG Tanklager Betriebsgesellschaft m.b.H.	Rettenlackstrasse 3, Salzburg, 5020	50
Transalpine Ölleitung in Österreich GmbH	Kienburg 11, Matrei in Osttirol, 9971	19
<b>BAHAMAS</b>		
Shell E & P Ireland Offshore Inc.	P.O. Box N4805, St. Andrew's Court, Frederick Street Steps, Nassau	100
<b>BARBADOS</b>		
Shell Trinidad and Tobago Resources SRL	One Welches, Welches, St. Thomas, BB22025	100
Shell Western Supply and Trading Limited	GTC Corporate Services Limited, Sassoon House, Shirley Street & Victoria Avenue, Nassau	100
<b>BELGIUM</b>		
Belgian Shell S.A.	Cantersteen 47, Brussels, 1000	100
CRI Catalyst Company Belgium N.V.	Pantserschipstraat 331, Gent, 9000	100
Ethyleen Pijpleiding Maatschappij (Belgie) N.V.	Kantersteen 47, Brussels, 1000	100
New Market Belgium S.A.	Cantersteen 47, Brussels, 1000	100
The New Motion Belgium Sprl	Regentlaan 37-40, Brussels, 1000	100
<b>BERMUDA</b>		
Egypt LNG Shipping Limited	Clarendon House, 2 Church Street, Hamilton, HM 11	25
Gas Investments & Services Company Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	85
Kuwait Shell Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Pecten Middle East Services Company Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Pecten Somalia Company Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Qatar Shell GTL Limited	4th Floor, Cedar House, 41 Cedar Ave, Hamilton, HM 12	100
Sakhalin Energy Investment Company Ltd	Clarendon House, 2 Church Street, Third Floor, Hamilton, HM 11	28
Shell Australia Natural Gas Shipping Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Bermuda (Overseas) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Deepwater Borneo Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell EP International Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Exploration and Production Guyana Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Holdings (Bermuda) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell International Trading Middle East Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Markets (Middle East) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Mexico Exploration and Production Investment Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Offshore Central Gabon Ltd	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Oman Trading Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Overseas Holdings (Oman) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Petroleum (Malaysia) Ltd	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Saudi Arabia (Refining) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell South Syria Exploration Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Trading (M.E.) Private Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Trust (Bermuda) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Shell Trust (U.K. Property) Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
Solen Insurance Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100

Company by country of incorporation	Address of registered office	%
Solen Life Insurance Limited	3rd Floor Continental Building, 25 Church Street, Hamilton, HM 12	100
<b>BRAZIL</b>		
BG Comercio e Importacao Ltda.	Av. República do Chile 330, 23º andar, Torre 2, Centro, Rio de Janeiro, 20031-170	100
BG do Brasil Ltda.	Av. República do Chile 330, 23º andar, Torre 2, sala 2309, Centro, Rio de Janeiro, 20031-170	100
BG Petroleo & Gas Brasil Ltda	Av. República do Chile 330, 23º andar [parte] - Torre 2, sala 2309, Centro, Rio de Janeiro, 20031-170	100
Fusus Comercio e Participacoes Ltda.	Calçada das Orquídeas 40, 1 E 2 Andares, Centro Comercial 1, Alphaville, Barueri - SP, 06453-017	100
Icolub - Industria de Lubrificantes S.A.	Praia Intendente Bittencourt, 2 [Parte], Ilha do Governador, Rio de Janeiro, 21930-030	100
Marlim Azul Energia S.A.	Av. Paulista, 1274, 8º andar, Conjunto 23, Sala B, Bela Vista, São Paulo, 01310-100	30
Novus Industria De Lubrificantes Ltda	Praia Intendente Bittencourt nº 2 a 8N, Ribeira, Rio de Janeiro, 21930-030	99
Pecten do Brasil Servicos de Petroleo Ltda	Av.das Americas 4200, Bloco 6, 4th Floor [parte], Barra da Tijuca, Rio de Janeiro, 22640-102	100
Raizen Combustíveis S.A.	Victor Civita, 77, Block 1, Edifice: Rio Office Park, 4 floor, Barra da Tijuca, Rio de Janeiro, 22775-044	50
Raizen Energia S.A.	Av. Brigadeiro Faria Lima, 4100, 11th floor, part V, Itaim Bibi, São Paulo, 04538-132	50
Seapos Ltda.	Av.das Americas 4200, Bloco 6, sala 301 [parte], Barra da Tijuca, Rio de Janeiro, 22640-102	100
Shell Brasil Participações Ltda.	Av. Brigadeiro Faria Lima, 3311, Conj 81 Sala 02, Itaim Bibi, São Paulo, 04538-133	100
Shell Brasil Petroleo Ltda.	Av.das Americas 4200, Bloco 6, salas 101, 201, 301, 401, 501, Barra da Tijuca, Rio de Janeiro, 22640-102	100
Shell Energy do Brasil Ltda	Av.das Americas 4200, Bloco 6, sala 501 [parte], Barra da Tijuca, Rio de Janeiro, 22640-102	100
<b>BRUNEI</b>		
Brunei LNG Sendirian Berhad	Lumut, Seria, KC2935	25
Brunei Shell Marketing Company Sendirian Berhad	Brunei Shell Petroleum Company, Sendirian Berhad, Seria, KB2933	50
Brunei Shell Petroleum Company Sendirian Berhad	Jalan Utara, Panaga, Seria, KB2933	50
Brunei Shell Tankers Sendirian Berhad	Jalan Utara, Panaga, Seria, KB2933	25
Shell Borneo Sendirian Berhad	c/o BSP Head Office, NDCO Block, Ground Floor, Jalan Utara, Panaga Seria, KB 3534	100
<b>BULGARIA</b>		
Shell Bulgaria Ead	48, Sitnyakovo Blvd., Serdika Offices, 8th floor, Sofia, 1505	100
<b>CAMBODIA</b>		
Angkor Resources Company Limited	186C, Street No 155, N/A - Tuol Tumpung Muoy, Chamkamorn, Phnom Penh	49
<b>CANADA</b>		
10084751 Canada Limited	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
1745844 Alberta Ltd.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	50
3095381 Nova Scotia Company	Suite 1300, 1969 Upper Water Street, Purdy's Wharf Tower II, Halifax, Nova Scotia, B3J 3R7	100
6581528 Canada Ltd.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
7026609 Canada Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
7645929 Canada Limited	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Alberta Products Pipe Line Ltd.	5305 McCall Way N.E., Calgary, Alberta, T2E 7N7	20
BG Canada Ltd.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
BlackRock Ventures Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Cansolv Technologies Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Coral Cibola Canada Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Criterion Catalysts & Technologies Canada, Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
FP Solutions Corporation	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	33
LNG Canada Development Inc. [b]	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	40
Sable Offshore Energy Inc.	1701 Hollis Street, Suite 1400, Halifax, Nova Scotia, B3J 3M8	33
SCL Pipeline Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
SFJ Inc.	199 Bay Street, Suite 5300, Commerce Court West, Toronto, Ontario, M5L 1B9	50
Shell Americas Funding [Canada] Limited	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada BROS Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada Energy [c]	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada Limited	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada OP Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada Products	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada Resources [c]	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Canada Services Limited	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Chemicals Canada [c]	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Energy Merchants Canada Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Energy North America (Canada) Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Global Solutions Canada Inc.	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Shell Quebec Limitée	400 boul de Maisonneuve Ouest, Montreal, Quebec, H3A 1L4	100
Shell Trading Canada [c]	400 4th Avenue S.W., Calgary, Alberta, T2P 0J4	100
Sun-Canadian Pipe Line Company Limited	830 Highway No. 6 North, Flamborough, Ontario, L0R 2H0	45
Trans-Northern Pipelines Inc.	45 Vogel Road, Suite 310, Richmond Hill, Ontario, L4B 3P6	33
<b>CAYMAN ISLANDS</b>		
Beryl North Sea Limited	Sterling Trust (Cayman) Limited, Whitehall House, 238 North Church Street, P.O. Box 1043, George Town, KY1-1102	100
BG Egypt S.A.	5th Floor, Bermuda House, Dr. Roy's Drive, George Town, Grand Cayman, KY1-1102	100
BG Exploration and Production India Limited	Campbells, Floor 4, Willow House, Cricket Square, Grand Cayman, KY1-9010	100
Gas Resources Limited	Caribbean Management Ltd, 5th Floor, Bermuda House, 30C Dr. Roy's Drive, Grand Cayman, KY1-1102	100
Schiehallion Oil & Gas Limited	Sterling Trust (Cayman) Limited, Whitehall House, 238 North Church Street, P.O. Box 1043, George Town, KY1-1102	100
Shell Bolivia Corporation	Zephyr House, 122 Mary Street, P.O. Box 2570, George Town, Grand Cayman, KY1-1103	100
Shell North Sea Holdings Limited	Maples Corporate Services Limited, Ugland House, P.O. Box 309, Grand Cayman, KY1-1104	100

Company by country of incorporation	Address of registered office	%
CHILE		
Shell Chile S.A.	C/O Carey y Cia Abogados, Miraflores 222, Piso 28, Santiago	100
CHINA		
Beijing Shell Petroleum Company Ltd.	Unit 1101-1104, level 11, Building 1, No. 19 Chaoyang Park Road, Chaoyang District, Beijing, 100125	49
Cansolv Technologies (Beijing) Company Limited	Unit 09, Level 31, No. 16 Building, No. 1 Jian Guo Men Wai Avenue, Chaoyang District, Beijing, 100004	100
Chongqing Doyen Shell Petroleum and Chemical Co. Ltd.	No. 196, Shuang Yuan Street, Beibei Zone, Chongqing, 400700	49
CNOOC and Shell Petrochemicals Company Limited	Dayawan Petrochemical Industrial Park, Huizhou, Guangdong, 516086	50
Fujian Xiangyu and Shell Petroleum Company Limited	Unit 604, 6/F, Building C, No. 3 Yunan Fourth Road, FTPZ Xiamen Sub-zone (Tariff-free Zone), Xiamen, 361000	49
Hangzhou Natural Gas Company Limited	10/F, Meiqi Mansion, No. 30 Tianmushan Road, Hangzhou, 310007	25
Infineum (China) Co. Ltd.	No. 1 Dongxin Road, Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang, Jiangsu	50
Jiangsu Shell Energy Company Limited	Room 1001, 10/F, Unit 3, No. 198 Hexi Street, Jianye District, Nanjing, 210019	100
Shell (Beijing) Real Estate Consulting Ltd.	Unit 01, 32/F, No. 16 Building, No. 1 Courtyard, Jian Guo Men Wai Avenue, Chaoyang District, Beijing, 100004	100
Shell (China) Limited	30/F Unit 01-02, No. 16 Building, No. 1 Courtyard, Jian Guo Men Wai Avenue, Chaoyang District, Beijing, 100004	100
Shell (China) Projects & Technology Limited	Unit 0108, Level 31, No. 16 Building, No. 1 Jian Guo Men Wai Avenue, Chaoyang District, Beijing, 100004	100
Shell (Shanghai) Petroleum Company Limited	Room 522, The British Road No. 38, China (Shanghai) Pilot Free Trade Zone, Shanghai, 200131	100
Shell (Shanghai) Technology Limited	Building 4, Jin Chuang Building, No. 4560, Jin Ke Road, Pilot Free Trade Zone, Shanghai	100
Shell (Tianjin) Lubricants Company Limited	North to Gang Bei Road and east to Hai Gang Road, Nangang Industrial Zone, Tianjin Economic-Technological Development Area, Tianjin, 300280	100
Shell (Tianjin) Oil and Petrochemical Company Limited	No. 286 Nansan Road, Tianjin Harbour Nanjiang Dev. Zone, Tanggu, Binhai NewDistrict, Tianjin, 300452	100
Shell (Zhejiang) Petroleum Trading Limited	No. 1 Wangjiaba, Ximiaozi Village, Puyuan Town, Tongxiang, Jiaxing, 314502	100
Shell (Zhuhai) Lubricants Company Limited	Nanjin Wan, Gaolan Dao, Zhuhai Harbour Industrial Zone, Guangdong, 519050	100
Shell Energy (China) Limited	Room 530, 5th Floor, Building 1, No. 239 Gang'ao Road, China (Shanghai) Free Trade Zone, Shanghai, 200137	100
Shell North China Petroleum Group Co., Ltd.	5th Floor, Administrative Commission Building, Wuqing Development Area, No.18, Fuyuan Road, Wuqing District, Tianjin, 300203	49
Shell Petroleum (Taizhou) Company Limited	Room 2027, No. 103 Tongxin North Road, Jinqing Town, Luqiao District, Taizhou, Zhejiang, 318059	100
Shell Road Solutions (Zhenjiang) Co. Ltd	No. 68 Xianjiejia, Dagang, Zhenjiang New District, Zhenjiang, 212132	100
Shell Road Solutions Xinyue [Foshan] Co. Ltd.	Baisha, Hekou, Sanshui District, Foshan, Guangdong, 528133	60
Sinopec and Shell (Jiangsu) Petroleum Marketing Company Limited	No. 100, Xingang Dadao, Nanjing Economic and Technological Development Zone, Nanjing, Jiangsu, 210000	40
Suzhou Liyuan Retail Site Management Co., Ltd.	No. 358 Zhuhui Road, Suzhou, 215000	50
Yanchang and Shell (Guangdong) Petroleum Co., Ltd.	39th Floor as Planning-designed (41st Floor as Self-designated), Leatop Plaza, No. 32 East Zhujiang Road, Zhujiang New Town, Tianhe District, Guangzhou	49
Yanchang and Shell (Sichuan) Petroleum Company Limited	23F, Yanlord Square, Section 2, Renmin South Road, Chengdu, Sichuan, 610016	45
Yanchang and Shell Petroleum Company Limited	19F, Building C, City Gateway, No. 1 Jinye Road, Hi-Tech Zone, Xi'an, 710075	45
Zhejiang Shell Fuels Company Limited	Room 2103, North Tower, Yefeng Modern Center, No. 161, Shaoxing Road, Xiacheng District, Hangzhou City [Zhejiang Province], 310004	100
Zhejiang Shell Oil and Petrochemical Company Limited	The Port of Zhipu, Jiaxing Municipality, Zhejiang, 314201	100
Zhejiang Transfar and Shell Energy Company Limited	Rm 1503, Building 2, Plaza of ZBA, No. 939 Minhe Road, Ningwei Street, Xiaoshan District, Hangzhou, Zhejiang, Hangzhou, 311215	49
COLOMBIA		
C.I. Shell Comercializadora Colombia, S.A.S	Calle 90 No. 19 - 41, Oficina 702- Edificio Quantum, Bogotá, 452	100
Shell Colombia S.A.	Calle 90 No. 19 - 41, Oficina 702- Edificio Quantum, Bogotá, 452	100
COOK ISLANDS		
Branstone (International) Limited [i]	Bermuda House, Tutakimoa Road, Rarotonga	100
CÔTE D'IVOIRE		
Cote d'Ivoire GNL	14, Blvd Carde, Imm. Les Heveas, Plateau, Abidjan, BP V 194	13
CYPRUS		
Rosneft-Shell Caspian Ventures Limited [g]	Metochiou str, 37, Agios Andreas, Nicosia, CY-1101	49
CZECH REPUBLIC		
Shell Czech Republic a.s.	Antala Staska 2027/77, Praha 4, 140 00	100
DENMARK		
A/S Dansk Shell	Egeskovvej 265, Fredericia, 7000	100
Shell EP Holdingselskab Danmark ApS	Midtermolen 3, 4, Copenhagen, 2100	100
Shell Olie-og Gasudvinding Danmark Pipelines ApS	Midtermolen 3, 4, Copenhagen, 2100	100
TetraSpar Demonstrator ApS	Bredgade 30, København K, 1260	33
EGYPT		
Alam El Shawish Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	20
Badr Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	50
Burullus Gas Company S.A.E. [b]	28 Road 270, Maadi, Cairo	25
El Behera Natural Gas Liquefaction Company S.A.E.	City of Rashid, El Behera Governorate	36
IDKU Natural Gas Liquefaction Company S.A.E.	City of Rashid, El Behera Governorate	38
Obaiyed Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	50
Rashid Petroleum Company S.A.E. [b]	38 Street No. 270, Maadi, Cairo	40
Shell Egypt Trading	Business View Building, No. 79, 90 Street (South), Fifth Settlement- New Cairo, Cairo, 11835	100
Shell Lubricants Egypt	Business View Building, No. 79, 90 Street (South), Fifth Settlement- New Cairo, Cairo, 11835	100
Sitra Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	50
The Egyptian LNG Company S.A.E.	City of Rashid, El Behera Governorate	36
The Egyptian Operating Company for Natural Gas Liquefaction Projects S.A.E.	City of Rashid, El Behera Governorate	36

Company by country of incorporation	Address of registered office	%
Tiba Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	26
West Sitra Petroleum Company [b]	127 Abdel Aziz Fahmy St, Heliopolis, P.O. Box 5958, Cairo, 5958	50
FINLAND		
Shell Aviation Finland Oy	Teknobulevardi 3-5, Vantaa, 01530	100
FRANCE		
Abitair SAS	Tour Pacific, 11/13 Cours Valmy - La Défense, Puteaux, 92800	100
Groupe d'Exploitation du Dépôt de Réception Chennevières [b] [c]	Chemin de Livry, Dépôt de Chennevières, Chennevières-lès-Louvres, 95380	11
Groupement Pétrolier Aviation SNC	Aéroport Roissy Charles de Gaulle, Zone de Frêt 1, 3 Rue des Vignes, Tremblay-en-France, 93290	20
Infineum France	Chemin départemental 54, Berre-L'Etang, 13130	50
Service Aviation Paris SNC	Orly Sud No. 144 - Bat. 438, Orly Aerogares, 94541	33
Shell Retraites SAS	Tour Pacific, 11/13 Cours Valmy - La Défense, Puteaux, 92800	100
Société de Gestion Mobilière et Immobilière SAS	Tour Pacific, 11/13 Cours Valmy - La Défense, Puteaux, 92800	100
Société des Pétroles Shell SAS	Tour Pacific, 11/13 Cours Valmy - La Défense, Puteaux, 92800	100
Ste du Pipeline Sud Européen S.A.	7-9, Rue des Frères Morane, Paris Cedex 15, 75738	21
The New Motion France SAS	15 Avenue du Centre, Guyancourt, 78280	100
GERMANY		
AGES Maut System GmbH & Co. KG	Berghausener Straße 96, Langenfeld, 40764	25
BEB Erdgas und Erdöl GmbH & Co. KG [b]	Riethorst 12, Hannover, 30659	50
BEB Holding GmbH [b]	Caffamacherreihe 5, Hamburg, 20355	50
Carissa Einzelhandel- und Tankstellenservice GmbH & Co. KG	Willinghusener Weg 5 D-E, Oststeinbek, 22113	100
Carissa Verwaltungsgesellschaft mbH	Suhrenkamp 71-77, Hamburg, 22335	100
CRI Catalyst Leuna GmbH	Am Haupttor, Bau 8322, Leuna, 06237	100
CRI Deutschland GmbH	Am Haupttor, Bau 8322, Leuna, 06237	100
Deutsche Infineum GmbH & Co. KG	Neusser Landstraße 16, Köln, 50735	50
Deutsche Shell GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Deutsche Shell Holding GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Deutsche Transalpine Oelleitung GmbH	Paul Wassermann Str. 3, Munich, 81829	19
Erdoel-Raffinerie Deurag-Nerag GmbH	Riethorst 12, Hannover, 30659	50
euroShell Deutschland GmbH & Co. KG	Suhrenkamp 71-77, Hamburg, 22335	100
euroShell Deutschland Verwaltungsgesellschaft mbH	Suhrenkamp 71-77, Hamburg, 22335	100
FBG Ferngasbeteiligungsgesellschaft mbH	Suhrenkamp 71-77, Hamburg, 22335	100
H2 Mobility Deutschland GmbH and Co. KG	Liniestrasse 160, Berlin, 10115	28
H2 Mobility Deutschland Verwaltungs GmbH	Liniestrasse 160, Berlin, 10115	28
HPRDS and SPNV Deutschland Oil GmbH & Co. KG	Suhrenkamp 71-77, Hamburg, 22335	100
HPRDS and SPNV Deutschland Verwaltungsges. mbH	Suhrenkamp 71-77, Hamburg, 22335	90
Infineum Deutschland Verwaltungsgesellschaft mbH	Neusser Landstraße 16, Köln, 50735	50
Mineraloelraffinerie Oberrhein Verwaltungs GmbH	DEA-Scholven-Str., Karlsruhe, 76187	32
Nord-West Oelleitung GmbH [b]	Zum Oelhafen 207, Wilhelmshaven, 26384	20
Oberrheinische Mineraloelwerke GmbH [b]	DEA-Scholven-Str., Karlsruhe, 76187	42
OLF Deutschland GmbH [b]	Suhrenkamp 71-77, Hamburg, 22335	50
PCK Raffinerie GmbH [b]	Passower Chaussee 111, Schwedt/Oder, 16303	38
Rheinland Kraftstoff GmbH	Auf dem Schollbruch 24-26, Gelsenkirchen, 45899	100
Rhein-Main-Rohrleitungstransportgesellschaft mbH [b]	Godorfer Hauptstrasse 186, Köln, 50997	63
Shell Deutschland Additive GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Deutschland Oil GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Energy Deutschland GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Erdgas Beteiligungsgesellschaft mbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Erdgas Marketing GmbH & Co. KG	Suhrenkamp 71-77, Hamburg, 22335	75
Shell Erdoel und Erdgas Exploration GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration and Development Libya GmbH I	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration and Production Colombia GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration and Production Libya GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration et Production du Maroc GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration New Ventures One GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Exploration und Produktion Deutschland GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Global Solutions (Deutschland) GmbH	Hohe-Schaar-Straße 36, Hamburg, 21107	100
Shell Hydrogen Deutschland GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Offshore Exploration und Produktion Deutschland GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell PrivatEnergie GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Tunisia Offshore GmbH	Suhrenkamp 71-77, Hamburg, 22335	100
Shell Verwaltungsgesellschaft für Erdgasbeteiligungen mbH	Suhrenkamp 71-77, Hamburg, 22335	100
SPNV Deutschland Beteiligungsges. mbH	Suhrenkamp 71-77, Hamburg, 22335	100
The New Motion Deutschland GmbH	c/o Mindspace, Friedrichstraße 68, Berlin, 10117	100
Tiramizoo GmbH	Prannerstr. 2-4, Munich, 80333	21
Wasserbeschaffungsverband Wesseling-Hersel	Bruehler Str. 95, Wesseling	35
GIBRALTAR		
Shell LNG Gibraltar Limited	57/63 Line Wall Road, P.O. Box 199, Gibraltar	51

Company by country of incorporation	Address of registered office	%
GREECE		
Shell & MOH Aviation Fuels A.E.	151 Kifisia Ave., Marousi, Athens, 15124	51
GREENLAND		
Shell Greenland A/S	Aqqusinersuaq 48A, P.O. Box 1728, Nuuk, 3900	100
GUAM		
Shell Guam Inc.	643 Chalan San Antonio, Suite 100, Tamuning, GU 96911	100
HONG KONG		
AFSC Operations Limited	3 Scenic Road, Chek Lap Kok, Lantau	11
AFSC Refuelling Limited	3 Scenic Road, Chek Lap Kok, Lantau	11
Branstone Company Limited	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Fulmart Limited	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Hong Kong Response Limited	Esso Tsing Yi Terminal, Lot 46 Tsing Yi Road, Tsing Yi Island, New Territories	25
Ocean Century Tf Limited [i]	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Shell Developments (HK) Limited [i]	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Shell Hong Kong Limited	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Shell Korea Limited	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
Shell Macau Limited	35/F AIA Kowloon Tower, Landmark East, 100 How Ming Street, Kwun Tong (Kowloon)	100
HUNGARY		
Shell Hungary Trading close Company Limited by shares	Bocskai út 134-146., Budapest, 1113	100
INDIA		
BG India Energy Private Limited	3-C World Trade Tower, New Barakhamba Lane, New Delhi, 110001	100
BG India Energy Services Private Limited	3-C World Trade Tower, New Barakhamba Lane, New Delhi, 110001	100
BG India Energy Solutions Private Limited	3-C World Trade Tower, New Barakhamba Lane, New Delhi, 110001	100
BG LNG Regas India Private Limited	3-C World Trade Tower, New Barakhamba Lane, New Delhi, 110001	100
Hazira LNG Private Limited	101-103 Abhijeet-II, Mithakali Circle, Ahmedabad 380 006, Gujarat, 380006	100
Hazira Port Private Limited	101-103 Abhijeet-II, Mithakali Circle, Ahmedabad 380 006, Gujarat, 380006	100
Pennzoil Quaker State India Limited	Plot No. T-5, MIDC, Taloja Industrial Area, Tal-Panvel, Raigad District, Maharashtra (Mumbai), 410208	100
Shell Energy Marketing and Trading India Private Limited	2nd floor, Campus 4A, RMZ Millenia Business Park II, 143 Dr MGR Road, Kandhanchavady, Perungudi, Chennai, TN 600096	100
Shell India Markets Private Limited	2nd floor, Campus 4A, RMZ Millenia Business Park II, 143 Dr MGR Road, Kandhanchavady, Perungudi, Chennai, TN 600096	100
Shell MRPL Aviation Fuels and Services Limited	102, Prestige Sigma, Vittal Mallya Road, Bangalore, 560001	50
INDONESIA		
PT. Gresik Distribution Terminal	Talavera Office Park 22-26th Floor, Jl. Letjen. TB Simatupang Kaw. 22-26, Jakarta Selatan, Jakarta, 12430	100
PT. Shell Indonesia	Talavera Office Park 22-26th Floor, Jl. Letjen. TB Simatupang Kaw. 22-26, Jakarta Selatan, Jakarta, 12430	100
PT. Shell Manufacturing Indonesia	Talavera Office Park 22-26th Floor, Jl. Letjen. TB Simatupang Kaw. 22-26, Jakarta Selatan, Jakarta, 12430	100
PT. Shell Solar Indonesia	Talavera Office Park 22-26th Floor, Jl. Letjen. TB Simatupang Kaw. 22-26, Jakarta Selatan, Jakarta, 12430	100
IRAQ		
Basrah Gas Company	Khor Al Zubair, Basrah	44
IRELAND		
Asiatic Petroleum Company (Dublin) Limited	1st Floor, Temple Hall, Temple Road, Blackrock, Co. Dublin, A94 K3KO	100
Irish Shell Trust Designated Activity Company	1st Floor, Temple Hall, Temple Road, Blackrock, Co. Dublin, A94 K3KO	100
Shell and Topaz Aviation Ireland Limited	Suite 7 Northwood House, Northwood Business Park, Santry, Dublin, 9	50
ISLE OF MAN		
Petrolon Europe Limited	First Names House, Victoria Road, Douglas, IM2 4DF	100
Petrolon International Limited	First Names House, Victoria Road, Douglas, IM2 4DF	100
Shell Marine Personnel (I.O.M.) Limited	Euromax House, Freeport, Ballasalla, IM9 2AP	100
Shell Ship Management Limited	Euromax House, Freeport, Ballasalla, IM9 2AP	100
ITALY		
Alle S.R.L.	Via Vittor Pisani 16, Milano, 20124	100
Aquila S.p.A.	Via Vittor Pisani 16, Milano, 20124	100
BG Italia Power S.p.A.	Via Tortona 25, Milano, 20144	100
Brindisi LNG S.p.A.	Via Tortona 25, Milano, 20144	100
Infineum Italia S.R.L.	Strada di Scorrimento 2, Vado Ligure (SA), 17047	50
Shell Energy Italia S.R.L.	Via Vittor Pisani 16, Milano, 20124	100
Shell International Exploration and Development Italia S.p.A.	Piazza dell'Indipendenza 11/B, Rome, 00185	100
Shell Italia E&P S.p.A.	Piazza dell'Indipendenza 11/B, Rome, 00185	100
Shell Italia Holding S.p.A.	Via Vittor Pisani 16, Milano, 20124	100
Shell Italia Oil Products S.R.L.	Via Vittor Pisani 16, Milano, 20124	100
Societa Italiana per l'Oleodotto Transalpino S.p.A.	Via Muggia #1, San Dorligo della Valle, Trieste, 34147	19
Societa' Oleodotti Meridionali S.p.A.	Via Emilia 1, San Donato Milanese, 20097	30
JAPAN		
Brunei Energy Services Company Ltd.	1-8-2 Marunouchi, Chiyoda-ku, Tokyo, 100-0005	25
Sakhalin LNG Services Company Ltd.	2-3, Kanda, Awaji-cho, Chiyoda-ku, Tokyo, 101-0063	50
Shell Japan Limited	16F Pacific Century Place, 1-11-1, Marunouchi, Chiyoda-ku, Tokyo, 100-6216	100
JERSEY		
Morzine Limited	Ogier House, The Esplanade, St. Helier, JE4 9WG	33
Shell Service Station Properties Limited	Queensway House, Hilgrove Street, St. Helier, JE1 1ES	100
LUXEMBOURG		

Company by country of incorporation	Address of registered office	%
Shell Finance Luxembourg Sarl	7, Rue de l'Industrie, Bertrange, Luxembourg, L-8069	100
Shell Luxembourgeoise Sarl	7, Rue de l'Industrie, Bertrange, Luxembourg, L-8005	100
Shell Treasury Luxembourg Sarl	7, Rue de l'Industrie, Bertrange, Luxembourg, L-8069	100
MACAU		
Shell Macau Petroleum Company Limited	876 Avenida da Amizade, Edificio Marina Gardens, Room 310, 3rd Floor	100
MALAYSIA		
Bonuskad Loyalty Sdn. Bhd. [i]	Level 8, Symphony House, Block D13, Pusat Dagangan Dana 1, Jalan PJU 1A/46, Petaling Jaya/Selangor Darul Ehsan, 47301	33
IOT Management Sdn. Bhd.	Lot 7689 and Lot 7690, Section 64, Kuching Town Land District, Jalan Pending, Kuching, Sarawak, 93450	7
Kebabangan Petroleum Operating Company Sdn. Bhd. [b]	Suite 13.03, 13 Floor, Menara Tan & Tan, 207 Tun Razak, Kuala Lumpur/Federal Territory, 50400	30
P S Pipeline Sendirian Berhad	Level 30, Tower 1, Petronas Twin Towers, KLCC, Kuala Lumpur/Federal Territory, 50088	50
P S Terminal Sendirian Berhad	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	35
Pertini Vista Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Provista Ventures Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Sarawak Shell Berhad	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell Business Service Centre Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell Global Solutions (Malaysia) Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell Malaysia Trading Sendirian Berhad	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell MDS (Malaysia) Sendirian Berhad	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	72
Shell New Ventures Malaysia Sdn. Bhd. [i]	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell People Services Asia Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell Sabah Selatan Sendirian Berhad	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	100
Shell Timur Sdn. Bhd.	Lot 6.05, Level 6, KPMG Tower, 8 First Avenue Bandar Utama, Petaling Jaya/Selangor Darul Ehsan, 47800	70
Shell Treasury Malaysia (L) Limited	Kensington Gardens, No. U1317, Lot 7616, Jalan Jumidar Buyong, Labuan F.T., 87000	100
Tanjung Manis Oil Terminal Management Sdn. Bhd.	Lot 7689 and Lot 7690, Section 64, Kuching Town Land District, Jalan Pending, Kuching, Sarawak, 93450	14
MAURITIUS		
BG Mauritius LNG Holdings Ltd	6th Floor, Tower A, 1 Cybercity, Ebene, 72201	100
BG Mumbai Holdings Limited	6th Floor, Tower A, 1 Cybercity, Ebene, 72201	100
Pennzoil Products International Company	33 Edith Cavell Street, Port Louis, 11324	100
MEXICO		
BG Group Mexico Exploration, S.A. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
BG Group Mexico Services, S.A. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
Comercial Importadora S. de R.L. de C.V.	Guillermo González Camarena 400, Centro Ciudad Santa Fe Alvaro, Ciudad de México, 01210	50
Concilia Asesores y Servicios S. de R.L. de C.V.	Guillermo González Camarena 400, Centro Ciudad Santa Fe Alvaro, Ciudad de México, 01210	50
Gas Del Litoral, S. de R.L. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	75
Shell Exploración y Extracción de México, S.A. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
Shell México Gas Natural, S. de R.L. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
Shell México, S.A. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
Shell Servicios México, S.A. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
Shell Trading México, S. de R.L. de C.V.	Av. Paseo de las Palmas 340, 1st floor, Colonia Lomas de Chapultepec, Delegación Miguel Hidalgo, Ciudad de México, 11000	100
NETHERLANDS		
Amsterdam Schiphol Pijpleiding Beheer B.V.	Amsterdamseweg 55, 1182 GP Amstelveen, P.O. Box 75650, Luchthaven Schiphol, 1118 ZS	40
Attiki Gas B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
B.R.E. B.V.	Lelystad, Deventer, 7425 SB	100
B.V. Dordtsche Petroleum Maatschappij	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
B.V. Petroleum Assurantie Maatschappij	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Atlantic Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Brazil E&P 12 B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Brazil Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Brazilian Investment B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Global Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas International B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas International Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Netherlands Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BG Gas Sao Paulo Investments B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
BJS Oil Operations B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	80
BJSA Exploration and Production B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Blauwwind Management II B.V.	Schaardijk 211, Rotterdam, 3063 NH	20
Caspi Meruerty Operating Company B.V.	Prins Bernhardplein 200, 1097JB Amsterdam, Amsterdam	40
Chosun Shell B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100

Company by country of incorporation	Address of registered office	%
Cicerone Holding B.V.	Herikerbergweg 238, Amsterdam, 1101 CM	51
ELLBA B.V. [b]	Vondelingenweg 601, Vondelingenplaat, Rotterdam, 3196 KK	50
ELLBA C.V. [b] [d]	Vondelingenweg 601, Vondelingenplaat, Rotterdam, 3196 KK	50
Euroshell Cards B.V.	Weena 70, Rotterdam, 3012 CM	100
Gasterra B.V.	P.O. Box 477, Groningen, 9700 AL	25
Guara B.V.	Weena 722, Rotterdam, 3014 DA	30
Iara B.V.	Weena 762, 9e verdieping, kamer A, Rotterdam, 3014 DA	25
Infineum Holdings B.V.	Herikerbergweg 238, Amsterdam, 1101 CM	50
Integral Investments B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Jordan Oil Shale Company B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Karachaganak Petroleum Operating B.V.	Strawinskyalaan 1345, Amsterdam, 1077 XX	29
Lapa Oil & Gas B.V.	Weena 762, 9e verdieping, kamer A, Rotterdam, 3014 DA	30
Libra Oil & Gas B.V.	Weena 762, Rotterdam, 3014 DA	20
ING Shipping Operation Services Netherlands B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Loyalty Management Netherlands B.V.	Polaris Avenue 81, P.O. Box 2047, 2130 GE, Hoofddorp, 2132 JH	40
Maasvlakte Olie Terminal C.V. [d]	Europaweg 975, Maasvlakte, Rotterdam, 3199 LC	16
Multi Tank Card B.V.	Antareslaan 39, P.O. Box 3068, 2130 KB, Hoofddorp, 2132 JE	30
N.V. Rotterdam-Rijn Pijpleiding Maatschappij [b]	Butaanweg 215, Vondelingenplaat-Rotterdam, 3196 KC	56
Nederlandse Aardolie Maatschappij B.V.	Schepersmaat 2, Assen, 9405 TA	50
Netherlands Alng Holding Company B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Noordzeewind B.V.	2e Havenstraat 5b, IJmuiden, 1976 CE	50
Noordzeewind C.V. [d]	2e Havenstraat 5b, IJmuiden, 1976 CE	50
North Caspian Operating Company N.V. [b]	Strawinskyalaan 1725, Amsterdam, 1077 XX	17
Paqell B.V.	Reactorweg 301, unit 1.3, Utrecht, 3542 AD	50
Raffinaderij Shell Mersin N.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
RESCO B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Rub' AlKhali Gas Development B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Salyrm Petroleum Development N.V. [b]	Carel van Bylandtlaan 30, The Hague, 2596 HR	50
Shell Abu Dhabi B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Additives Holdings (I) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Additives Holdings (II) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Albania Block 4 B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell and Vivo Lubricants B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	50
Shell Asset Management Company B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Bab Gas Development B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Brazil Holding B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Business Development Central Asia B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Caspian B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Caspian Pipeline Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Chemicals Europe B.V.	Weena 70, Rotterdam, 3012 CM	100
Shell Chemicals Ventures B.V. [k]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell China B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell China Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Deepwater Tanzania B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Development Iran B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Downstream Services International B.V.	Weena 70, Rotterdam, 3012 CM	100
Shell E and P Offshore Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Egypt N.V. [e]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Energy Europe B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Holdings (EE&ME) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Middle East Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Russia Investments (III) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Russia Investments (V) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Somalia B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell EP Wells Equipment Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (79) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (82) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (84) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (87) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (88) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (89) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (90) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (91) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LII) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LIX) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LVII) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXI) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXII) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100

Company by country of incorporation	Address of registered office	%
Shell Exploration and Production (LXIV) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXV) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXVI) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXXI) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (LXXV) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production (XL) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Investments B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Mauritania (C10) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Mauritania (C19) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Services (RF) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production South Africa B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Ukraine I B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Ukraine Investments (I) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Ukraine Investments (II) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration and Production Ukraine Investments (IV) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration Company (RF) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration Company (West) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration Company B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Exploration Venture Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Finance (Netherlands) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas & Power Developments B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas (LPG) Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas Iraq B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas Nigeria B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Gas Venezuela B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Generating (Holding) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Global Solutions (Eastern Europe) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Global Solutions International B.V.	Kessler Park 1, Rijswijk, 2288 GS	100
Shell Global Solutions Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Information Technology International B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Integrated Gas Oman B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell International B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell International Exploration and Production B.V.	Carel van Bylandtlaan 16, The Hague, 2596 HR	100
Shell International Finance B.V. [a]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Internationale Research Maatschappij B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Internet Ventures B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Iraq Petroleum Development B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Iraq Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Kazakhstan B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Kazakhstan Development B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Kuwait Exploration and Production B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell LNG Port Spain B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Lubricants Supply Company B.V.	Weena 70, Rotterdam, 3012 CM	100
Shell Manufacturing Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Mozambique B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell MSPO 2 Holding B.V.	Vondelingenweg 601, Vondelingenplaat, Rotterdam, 3196 KK	100
Shell Namibia Upstream B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Nanhai B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Nederland B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Nederland Chemie B.V. [i]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Nederland Raffinaderij B.V.	Vondelingenweg 601, Vondelingenplaat, Rotterdam, 3196 KK	100
Shell Nederland Verkoopmaatschappij B.V.	Weena 70, Rotterdam, 3012 CM	100
Shell New Energies NL B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Offshore (Personnel) Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Offshore North Gabon B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Offshore Services B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell OKING Holdings B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Olie - OG Gasudvinding Danmark B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Olie OG Gas Holding B.V. [k]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Oman Exploration and Production B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Overseas Investments B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Pensioenbureau Nederland B.V.	Postbus 157, The Hague, 2501 CD	100
Shell Petroleum N.V. [a]	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Philippines Exploration B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100
Shell Project Development (VIII) B.V.	Carel van Bylandtlaan 30, The Hague, 2596 HR	100

Company by country of incorporation	Address of registered office	%
Shell RDS Holding B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Sakhalin Holdings B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Sakhalin Services B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Salym Development B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Services Oman B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Shared Services (Asia) B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell South Africa Upstream B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell TapUp B.V.	Hofplein 20, Rotterdam, 3032 AC	100
Shell Technology Ventures Fund 1 B.V.	Strawinskyalaan 3127 8e etage, Amsterdam, 1077 ZX	52
Shell Trademark Management B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Trading Rotterdam B.V.	Weena 70, Rotterdam, 3012 CM	100
Shell Trading Russia B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Upstream Albania B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Upstream Development B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Upstream Indonesia Services B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Upstream Spain B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Upstream Turkey B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Ventures B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Ventures Investments B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Western LNG B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Windenergy Netherlands B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Shell Windenergy NZW I B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	100
Snijders Olie B.V.	Weena 70, Rotterdam, 3012 CM	100
Syria Shell Petroleum Development B.V. [j]	Carel van Bylandlaan 30, The Hague, 2596 HR	65
Tamba B.V.	Carel van Bylandlaan 30, The Hague, 2596 HR	50
Tankstation Exploitatie Maatschappij Holding B.V.	Weena 70, Rotterdam, 3012 CM	100
The New Motion B.V.	Rigakade 20, Amsterdam, 1013 BC	100
Tupi B.V.	Wilhelminatoren, Wilhelminaplein 14, Rotterdam, 3072	25
Waalrug Exploitatie Maatschappij B.V.	Henri Berssenbruggestraat 9, Deventer, 7425 SB	100
Zeolyst C.V.	Oosterhorn 36, Farmsum, 9936 HD	50
NEW ZEALAND		
Energy Finance NZ Limited	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
Energy Holdings Offshore Limited	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
Shell (Petroleum Mining) Company Limited	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
Shell Energy Asia Limited	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
Shell Investments NZ Limited	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
Southern Petroleum No Liability	Level 10, ASB Tower, 2 Hunter Street, P.O. Box 1873, Wellington, 6011	100
NIGERIA		
All on Partnerships for Energy Access Limited by Guarantee	44 Bourdillon Road, Ikoyi, Lagos	100
BG Exploration and Production Nigeria Limited	Eko Nominees Limited, 252E Muri Okunola Street, Victoria Island, Lagos	100
BG Upstream A Nigeria Limited	Eko Nominees Limited, 252E Muri Okunola Street, Victoria Island, Lagos	100
Delta Business Development Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Nigeria LNG Limited	Corporate Office, Intels Aba Road Estate, Km16 Aba Expressway, Port Harcourt, 500211	26
NLNG Ship Manning Limited	Corporate Office, Intels Aba Road Estate, Km16 Aba Expressway, Port Harcourt, 500211	20
Shell Exploration and Production Africa Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Business Operations Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Closed Pension Fund Administrator Ltd	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Exploration and Production Company Ltd	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Exploration and Production Echo Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Exploration Properties Alpha Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Exploration Properties Beta Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Exploration Properties Charlie Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Gas Ltd (SNG)	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Infrastructure Development Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Offshore Prospecting Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Oil Products Limited (SNOP)	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Ultra Deep Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Nigeria Upstream Ventures Limited	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	100
Shell Thrift & Loan Fund Trustees Nig Ltd	Freeman House, 21/22 Marina, P.M.B. 2418, Lagos	99
The Shell Petroleum Development Company of Nigeria Limited	Shell Industrial Area, Port Harcourt, Rivers State, P.O. Box 263, Port Harcourt	100
NORWAY		
A/S Norske Shell	Tankvegen 1, Tananger, 4056	100
Aviation Fuelling Services Norway AS	Bygg 6, Drammensveien 134, Oslo, 0277	50
Gasnor AS	Helgesensvegen 59, Karmøy, 4262 Avaldsnes	100
Ormen Lange Eiendom DA	Nyhamna, Aukra, 6480	18
Shell Marine Products AS	Korenslyst Allé 2, Oslo, 0278	100
Technology Centre Mongstad DA	Mongstad 71A, Mongstad, 5954	8
Vestprosess DA	Forusbeen 50, Stavanger, 4035	8

Company by country of incorporation	Address of registered office	%
<b>OMAN</b>		
Oman LNG LLC	P.O. Box 560, Mina Al Fahal, Muscat, 116	30
Petroleum Development Oman LLC	P.O. Box 81, Mina Al Fahal, Muscat, 113	34
Shell Development Oman LLC	P.O. Box 74, Mina Al Fahal, Muscat, 116	100
Shell Oman Marketing Company SAOG	P.O. Box 38, Mina Al Fahal, Muscat, 116	49
<b>PAKISTAN</b>		
Pak Arab Pipeline Company Limited	House No. 2-B, Nazimuddin Road, F-8/1, Islamabad, 75400	20
Pakistan Energy Gateway Limited	E110, Khayaban E Jinnah, Lahore Cantonement, Punjab, Cantonement, 54810	33
Shell Pakistan Limited	Shell House, 6 Ch. Khaliquzzaman Road, Karachi, 75530	76
<b>PERU</b>		
Shell GNL Peru S.A.C.	Calle Dean Valdivia 111, Oficina 802, San Isidro, Lima, Lima 27	100
Shell Operaciones Peru S.A.C.	Calle Dean Valdivia 111, Oficina 802, San Isidro, Lima, Lima 27	100
<b>PHILIPPINES</b>		
Bonifacio Gas Corporation	2nd Floor, Bonifacio Tech. Center, 31st Street cor. 2nd Avenue, Crescent Park West, Bonifacio Global City, Taguig, Metro Manila	24
Kamayan Realty Corporation	NDC Bldg., 116 Tordesillas St., Salcedo Village, Makati City, Metro Manila, 1227	22
Pilipinas Shell Petroleum Corporation	Shellhouse, 156 Valero Street, Salcedo Village, Brgy. Bel-Air, Makati City, Metro Manila, 1227	55
Shell Chemicals Philippines, Inc.	Shellhouse, 156 Valero Street, Salcedo Village, Brgy. Bel-Air, Makati City, Metro Manila, 1227	100
Shell Gas and Energy Philippines Corporation	Shellhouse, 156 Valero Street, Salcedo Village, Brgy. Bel-Air, Makati City, Metro Manila, 1227	100
Shell Gas Trading [Asia Pacific], Inc.	Subic Bay Free Port Zone, Olongapo City, 2200	100
Shell Solar Philippines Corporation	Shellhouse, 156 Valero Street, Salcedo Village, Brgy. Bel-Air, Makati City, Metro Manila, 1227	100
Tabangao Realty, Inc.	Shellhouse, 156 Valero Street, Salcedo Village, Brgy. Bel-Air, Makati City, Metro Manila, 1227	40
<b>POLAND</b>		
First Utility Poland Sp. z o.o.	Al. Pokuju 5, Krakow, 31-548	100
Shell Polska Sp. z o.o.	ul. Bitwy Warszawskiej 1920 r. nr 7A, Warsaw, 02-366	100
<b>PORTUGAL</b>		
Shell Madeira Praia Formosa - Instalações, Comércio e Distribuição de Combustíveis S.A	Av. dos Combatentes da Grande Guerra nº 17, Freguesia de S. Juliao, Setúbal, 2900-329	100
<b>PUERTO RICO</b>		
Station Managers of Puerto Rico, Inc.	P.O. Box 186, Yabucoa, PR 00767-0186	100
<b>QATAR</b>		
Qatar Liquefied Gas Company Limited [4]	P.O. Box 22666, Doha	30
Qatar Shell Research & Technology Centre QSTP-LLC	Qatar Science & Technology Park Tech1, Office 101, P.O. Box 3747, Doha	100
Qatar Shell Service Company W.L.L.	Al Mirqab Tower, West Bay, P.O. Box 3747, Doha	100
<b>RUSSIA</b>		
Khanty-Mansiysk Petroleum Alliance Closed Joint Stock Company	24 A Yakubovicha ul, Saint Petersburg, 190000	50
[b]		
Limited Liability Company "Shell Neft"	24 Bld D Smolnaya street, Moscow, 125445	100
Limited Liability Company "Shell Neftegaz Development (V)"	Novinsky blvd, 31, Moscow, 123242	100
LLC Shell NefteGaz Development	Novinsky blvd, 31, Moscow, 123242	100
Syriaga Neftegaz Development LLC	Novinsky blvd, 31, Moscow, 123242	100
<b>SAINT KITTS AND NEVIS</b>		
Shell Oil & Gas (Malaysia) LLC	Morning Star Holdings Limited, Main Street, Suite 556, Charlestown, Nevis, West Indies	90
<b>SAINT LUCIA</b>		
BG Atlantic 1 Holdings Limited	Mercury Court, Choc Estate, Castries	100
BG Atlantic 2/3 Holdings Limited	Mercury Court, Choc Estate, Castries	100
BG Atlantic 4 Holdings Limited	Mercury Court, Choc Estate, Castries	100
BG Central Holdings Limited	Mercury Court, Choc Estate, Castries	100
BG West Indies No. 2 Limited	Mercury Court, Choc Estate, Castries	100
<b>SAUDI ARABIA</b>		
Al Jomaih and Shell Lubricating Oil Co.ltd.	P.O. Box 41467, Riyadh, 11521	50
Peninsular Aviation Services Company Limited	P.O. Box 6369, Jeddah, 21442	25
Saudi Aramco Shell Refinery Company [b]	P.O. Box 10088, Madinat Al-Jubail Al-Sinaiyah, Al Jubail, 31961	50
Shell Global Solutions Saudi Arabia LLC	P.O. Box 16996, Riyadh, 11474	100
<b>SINGAPORE</b>		
BG Asia Pacific Holdings Pte. Limited	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
BG Asia Pacific Services Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
BG Exploration & Production Myanmar Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
BG Insurance Company (Singapore) Pte Ltd	10 Collyer Quay, #10-01 Ocean Financial Centre, Singapore, 049315	100
BG Myanmar Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
BG Oil Marketing Pte Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Connected Freight Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
CRI/Criterion Marketing Asia Pacific Pte Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Ellba Eastern (Pte) Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Fuelng Pte. Ltd	50 Gul Road, Singapore, 629351	50
Infineum Singapore Pte Ltd	31 International Business Park, #04-08, Creative Resource, Singapore, 609921	50
QPI and Shell Petrochemicals (Singapore) Pte Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	51

Company by country of incorporation	Address of registered office	%
Shell Chemicals Seraya Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Eastern Petroleum (Pte) Ltd [i]	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Eastern Trading (Pte) Ltd [i]	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Gas Marketing Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell India Ventures Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Integrated Gas Thailand Pte.Limited	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell International Shipping Services (Pte) Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Myanmar Energy Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Myanmar Petroleum Pte. Ltd.	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Pulau Moa Pte Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Seraya Pioneer (Pte) Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Singapore Trustees (Pte) Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Tankers (Singapore) Private Limited	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Shell Treasury Centre East (Pte) Ltd	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	100
Singapore Lube Park Pte. Ltd. [b]	160 Tuas South Avenue 5, Singapore, 637364	44
Sirius Well Manufacturing Services Pte. Ltd. [b]	The Metropolis Tower 1, 9 North Buona Vista Drive, #07-01, Singapore, 138588	50
<b>SLOVAKIA</b>		
SHELL Slovakia s.r.o.	Einsteinova 23, Bratislava, 851 01	100
<b>SLOVENIA</b>		
Shell Adria d.o.o.	Bravnicarjeva ulica 13, Ljubljana, 1000	100
<b>SOUTH AFRICA</b>		
Bituguard Southern Africa (Pty) Ltd	Twickenham, The Campus, 57 Sloan Street, Epsom Downs, Bryanston, 2021	36
Blendcor (Pty) Ltd. [b]	Honshu Road, Durban, 4001	36
Sekelo Oil Trading (Pty) Limited	Suite OE/1, The Nautica, The Waterclub, Beach Road, Granger Bay, Cape Town, 8001	43
Shell & BP South African Petroleum Refineries (Pty) Limited [b]	Reunion, Durban, 4001	36
Shell Downstream South Africa (Pty) Ltd	Twickenham, The Campus, 57 Sloan Street, Epsom Downs, Bryanston, 2021	72
Shell Global Customer Services Centre Cape Town (Pty) Ltd	10 Rua Vasco de Gama, Foreshore, Cape Town, 8000	100
Shell South Africa Energy (Pty) Ltd	Twickenham, The Campus, 57 Sloan Street, Epsom Downs, Bryanston, 2021	100
Shell South Africa Exploration (Pty) Limited	Twickenham, The Campus, 57 Sloan Street, Epsom Downs, Bryanston, 2021	100
Shell South Africa Holdings (Pty) Ltd	Twickenham, The Campus, 57 Sloan Street, Epsom Downs, Bryanston, 2021	100
STISA (Pty) Limited	Suite OE/2, The Nautica, The Waterclub, Beach Road, Granger Bay, Cape Town, 8001	72
<b>SOUTH KOREA</b>		
Hankook Shell Oil Company	No. 250, Sinsun-ro, Nam-gu, Busan, 48561	54
Hyundai and Shell Base Oil Co., Ltd	640-6, Daejuk-ri, Daesan-eup, Seosan-shi, Chungchongnam-do, 356-713	40
<b>SPAIN</b>		
BG Energy Iberian Holdings, S.L.	Paseo de la Castellana, 257-6°, Madrid, 28046	100
Shell & Disa Aviation España, S.L.	Rio Bullaque, 2, Madrid, 28034	50
Shell España, S.A.	Paseo de la Castellana, 257-6°, Madrid, 28046	100
Shell Spain LNG, S.A.U.	Paseo de la Castellana, 257-6°, Madrid, 28046	100
<b>SUDAN</b>		
Shell (Sudan) Petroleum Development Company Limited	Shell House, P.O. Box 320, Khartoum	100
<b>SWEDEN</b>		
A Flygrönslehantering Aktiebolag	P.O. Box 135, Stockholm-Arlanda, 190 46	25
BG International Services AB	Deloitte, P.O. Box 450, Östersund, 831 26	100
Gothenburg Fuelling Company AB	P.O. Box 2154, Gothenburg, 438 14	33
Malmö Fuelling Services AB	Sturup Flygplats, P.O. Box 22, Malmö, 230 32	33
Shell Aviation Sweden AB	Gustavslundvägen 22, Bromma, 16751	100
Stockholm Fuelling Services AB	P.O. Box 85, Stockholm-Arlanda, 190 45	25
<b>SWITZERLAND</b>		
Bully 1 (Switzerland) GmbH	Dorfstrasse 19a, Baar, 6340	50
Bully 2 (Switzerland) GmbH	Dorfstrasse 19a, Baar, 6340	50
Saraco SA	Route de Pré-Bois 17, Cointrin, 1216	20
Shell (Switzerland) AG	Baarermatte, Baar, 6340	100
Shell Brands International AG	Baarermatte, Baar, 6340	100
Shell Corporate Services Switzerland AG	Baarermatte, Baar, 6340	100
Shell Finance Switzerland AG	Baarermatte, Baar, 6340	100
Shell Holdings Switzerland AG	Baarermatte, Baar, 6340	100
Shell Lubricants Switzerland AG	Steigerhubelstrasse 8, Bern, 3008	100
Shell Trading Switzerland AG	Baarermatte, Baar, 6340	100
Shell Treasury Company Switzerland AG	Baarermatte, Baar, 6340	100
SOGEP Société Genevoise des Pétroles SA	Route de Vernier 132, Vernier, 1214	34
Solen Versicherungen AG	Baarermatte, Baar, 6340	100
Stazioni Autostradali Bellinzona SA	Autostrada A2 (direzione Gottardo), Hotel Bellinzona Sud, Monte Carasso, 6513	50
UBAG - Unterflurbetankungsanlage Flughafen Zürich AG	Zwischeteich, Rümlang, 8153	20
<b>SYRIA</b>		
Al Badiah Petroleum Company	Damascus New Sham Western Dummar, Island No 1 - Property 2299, P.O. Box 7660, Damascus	22
Al Furat Petroleum Company	Damascus New Sham Western Dummar, Island No 1 - Property 2299, P.O. Box 7660, Damascus	20
<b>TAIWAN</b>		

Company by country of incorporation	Address of registered office	%
CPC Shell Lubricants Co. Ltd	No 2, Tso-Nan Road, Nan-Tze District, P.O. Box 25-30, Kaohsiung, 811	51
Shell Taiwan Limited	International Trade Building, Room 2001, 20th Floor, 333, Keelung Road Section 1, Taipei, 110	100
<b>TANZANIA</b>		
Fahori Gas Marketing Company Limited	1st Floor Kilwa House, Plot 369, Toure Drive, Oyster Bay, P.O. Box 105833, Dar es Salaam	53
Mzalendo Gas Processing Company Limited	1st Floor Kilwa House, Plot 369, Toure Drive, Oyster Bay, P.O. Box 105833, Dar es Salaam	53
Ruvuma Pipeline Company Limited	1st Floor Kilwa House, Plot 369, Toure Drive, Oyster Bay, P.O. Box 105833, Dar es Salaam	53
Tanzania LNG Limited	1st Floor Kilwa House, Plot 369, Toure Drive, Oyster Bay, P.O. Box 105833, Dar es Salaam	100
<b>THAILAND</b>		
Pattanadhorn Company Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	42
Sahapanikhijphun Company Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	42
Shell Global Solutions (Thailand) Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	48
Shell Global Solutions Holdings (Thailand) Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	49
Thai Energy Company Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	100
Unitas Company Limited	10 Soonthornkosa Road, Klongtoey, Bangkok, 10110	42
<b>TRINIDAD AND TOBAGO</b>		
BG 2/3 Investments Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Point Fortin LNG Exports Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	81
Shell Gas Supply Trinidad Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Shell LNG T&T Ltd	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Shell Manatee Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Shell Trinidad Central Block Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Shell Trinidad Ltd	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
Shell Trinidad North Coast Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
The International School of Port of Spain Limited	1 International Drive, Westmoorings	25
TRINLING Limited	5 Saint Clair Avenue, Saint Clair, Port of Spain	100
<b>TUNISIA</b>		
Amilcar Petroleum Operations S.A.	Immeuble Mezghenni, Rue du Lac Windermere BP36, Les Berges du Lac, Tunis, 1053	50
Shell Tunisia LPG S.A.	Immeuble Rue du Lac Windermere, Les Berges du Lac, Tunis, 1053	100
Tunisian Processing S.A.	Immeuble Rue du Lac Windermere, Les Berges du Lac, Tunis, 1053	100
<b>TURKEY</b>		
Ambarlı Depolama Hizmetleri Ltd. Sti.	Yakuplu Mah. Gencosman Cad. No:7, Beylikduzu, İstanbul, 34524	35
Cekisan Depolama Hizmetleri Ltd. Sti.	Yakuplu Mah. Gencosman Cad. No:3, Beylikduzu, İstanbul, 34524	35
Marmara Depocuklu Hizmetleri A.S.	Sultankoy Mahallesı Maltepe Sokak No:66, Marmara Ereğlisi, Tekirdağ, 59750	32
Samsun Akaryakıt VE Depolama A.S.	Dilovası Organize Sanayi Bölgesi 1.Kısim, 1004 Sokak No:10, Dilovası, Kocaeli	35
Shell & Turcas Petrol A.S.	Gulbahar Mah.Salih Tozan Sok., Karamancılar İş Merkezi B Blok No:18, Esentepe, Sisli, İstanbul, 34394	70
Shell Enerji A.S.	Gulbahar Mah.Salih Tozan Sok., Karamancılar İş Merkezi B Blok No:18, Esentepe, Sisli, İstanbul, 34394	100
Shell Petrol A.S.	Gulbahar Mah.Salih Tozan Sok., Karamancılar İş Merkezi B Blok No:18, Esentepe, Sisli, İstanbul, 34394	70
<b>UK</b>		
Alie Investments Limited	Shell Centre, London, SE1 7NA	100
Angkor Shell Limited	Shell Centre, London, SE1 7NA	100
Applied Blockchain Ltd	Level 39, One Canada Square, London, E14 5AB	27
Autogas Limited	Athena House, Athena Drive, Tachbrook Park, Warwick, CV34 6RL	50
BG Atlantic Finance Limited	Shell Centre, London, SE1 7NA	100
BG Central Holdings Limited	Shell Centre, London, SE1 7NA	100
BG Cyprus Limited	Shell Centre, London, SE1 7NA	100
BG Delta Limited	Shell Centre, London, SE1 7NA	100
BG Employee Shares Trustees Limited	Shell Centre, London, SE1 7NA	100
BG Energy Capital Plc	Shell Centre, London, SE1 7NA	100
<b>BG Energy Holdings Limited</b>	Shell Centre, London, SE1 7NA	100
BG Energy Marketing Limited	Shell Centre, London, SE1 7NA	100
BG Energy Trading Limited	Shell Centre, London, SE1 7NA	100
BG Equatorial Guinea Limited	Shell Centre, London, SE1 7NA	100
BG Exploration and Production Limited	Shell Centre, London, SE1 7NA	100
BG Gas Marketing Limited	Shell Centre, London, SE1 7NA	100
BG Gas Services Limited	Shell Centre, London, SE1 7NA	100
BG Gas Supply (UK) Limited	Shell Centre, London, SE1 7NA	100
BG General Holdings Limited	Shell Centre, London, SE1 7NA	100
BG General Partner Limited	50 Lothian Road, Festival Square, Edinburgh, EH3 9WJ	100
BG Global Employee Resources Limited	Shell Centre, London, SE1 7NA	100
BG Global Energy Limited	Shell Centre, London, SE1 7NA	100
BG Great Britain Limited	Shell Centre, London, SE1 7NA	100
BG Group Company Secretaries Limited	Shell Centre, London, SE1 7NA	100
BG Group Employee Benefit Trust Limited	Shell Centre, London, SE1 7NA	100
BG Group Employee Shares Trustees Limited	Shell Centre, London, SE1 7NA	100
<b>BG Group Limited</b>	Shell Centre, London, SE1 7NA	100
BG Group Pension Trustees Limited	Shell Centre, London, SE1 7NA	100
BG Group Trustees Limited	Shell Centre, London, SE1 7NA	100
BG Intellectual Property Limited	Shell Centre, London, SE1 7NA	100

Company by country of incorporation	Address of registered office	%
BG International Limited	Shell Centre, London, SE1 7NA	100
BG Iran Limited	Shell Centre, London, SE1 7NA	100
BG Karachaganak Limited	Shell Centre, London, SE1 7NA	100
BG Karachaganak Trading Limited	Shell Centre, London, SE1 7NA	100
BG Kenya L10A Limited	Shell Centre, London, SE1 7NA	100
BG Kenya L10B Limited	Shell Centre, London, SE1 7NA	100
BG LNG Investments Limited	Shell Centre, London, SE1 7NA	100
BG Mongolia Holdings Limited	Shell Centre, London, SE1 7NA	100
BG Netherlands	Shell Centre, London, SE1 7NA	100
BG Netherlands Financing Unlimited	Shell Centre, London, SE1 7NA	100
BG Norge Exploration Limited	Shell Centre, London, SE1 7NA	100
BG Norge Limited	Shell Centre, London, SE1 7NA	100
BG North Sea Holdings Limited	Shell Centre, London, SE1 7NA	100
BG OKLNG Limited	Shell Centre, London, SE1 7NA	100
BG Overseas Holdings Limited	Shell Centre, London, SE1 7NA	100
BG Overseas Investments Limited	Shell Centre, London, SE1 7NA	100
BG Overseas Limited	Shell Centre, London, SE1 7NA	100
BG Pension Funding Scottish Limited Partnership [i]	50 Lothian Road, Festival Square, Edinburgh, EH3 9WJ	100
BG Rosetta Limited	Shell Centre, London, SE1 7NA	100
BG Singapore Limited	Shell Centre, London, SE1 7NA	100
BG South Asia LNG Limited	Shell Centre, London, SE1 7NA	100
BG South East Asia Limited	Shell Centre, London, SE1 7NA	100
BG Subsea Well Project Limited	Shell Centre, London, SE1 7NA	100
BG Tanzania Holdings Limited	Shell Centre, London, SE1 7NA	100
BG Trinidad LNG Limited	Shell Centre, London, SE1 7NA	100
BG UK Capital II Limited	Shell Centre, London, SE1 7NA	100
BG UK Capital Limited	Shell Centre, London, SE1 7NA	100
BG UK Holdings Limited	Shell Centre, London, SE1 7NA	100
Brazil Shipping I Limited	Shell Centre, London, SE1 7NA	100
Brazil Shipping II Limited	Shell Centre, London, SE1 7NA	100
British Pipeline Agency Limited	5-7 Alexandra Road, Hemel Hempstead, Herts, HP2 5BS	50
CRI Catalyst Company Europe Limited	Shell Centre, London, SE1 7NA	100
CRI/Criterion Catalyst Company Limited	Shell Centre, London, SE1 7NA	100
Dragon LNG Group Limited [b]	Main Road, Waterston, Milford Haven, Pembrokeshire, SA73 1DR	50
DSX Trading Limited	Shell Centre, London, SE1 7NA	100
Eastham Refinery Limited [b]	8 York Road, London, SE1 7NA	50
Enterprise Oil Limited	8 York Road, London, SE1 7NA	100
Enterprise Oil Middle East Limited	8 York Road, London, SE1 7NA	100
Enterprise Oil Norge Limited	8 York Road, London, SE1 7NA	100
Enterprise Oil Operations Limited	8 York Road, London, SE1 7NA	100
Enterprise Oil U.K. Limited	8 York Road, London, SE1 7NA	100
Farepilot Limited	Shell Centre, London, SE1 7NA	87
First Telecommunications Limited	Columbus House, Westwood Business Park, Coventry, CV4 8HS	100
First Utilities Limited	Columbus House, Westwood Business Park, Coventry, CV4 8HS	100
First Utility Limited	Columbus House, Westwood Business Park, Coventry, CV4 8HS	100
Gainrace Limited	8 York Road, London, SE1 7NA	100
Gatwick Airport Storage and Hydrant Company Limited	8 York Road, London, SE1 7NA	13
Glossop Limited	8 York Road, London, SE1 7NA	100
GOGB Limited	8 York Road, London, SE1 7NA	100
Heathrow Airport Fuel Company Limited	Building 1204, Sandringham Road, Heathrow Airport, Hounslow, Middlesex, TW6 3SH	14
Heathrow Hydrant Operating Company Limited	Building 1204, Sandringham Road, Heathrow Airport, Hounslow, Middlesex, TW6 3SH	10
Impello Limited	Columbus House, Westwood Business Park, Coventry, CV4 8HS	100
International Inland Waterways, Limited	8 York Road, London, SE1 7NA	100
Karachaganak Project Development Limited [b]	Shell Centre, London, SE1 7NA	38
Khmer Shell Limited	Shell Centre, London, SE1 7NA	100
Kite Power Systems Limited	146 New London Road, Chelmsford, Essex, CM2 0AW	25
Lensbury Limited	Broom Road, Teddington, Middlesex, TW11 9NU	100
Machine Max Limited	Shell Centre, London, SE1 7NA	56
Manchester Airport Storage and Hydrant Company Limited	50 Broadway, London, SW1H 0BL	25
Maritime Association for Risk Mitigation & Safety Limited	Shell Centre, London, SE1 7NA	100
Methane Services Limited	Shell Centre, London, SE1 7NA	100
Murphy Schiehallion Limited	Shell Centre, London, SE1 7NA	100
Octane Properties Limited	Shell Centre, London, SE1 7NA	100
Private Oil Holdings Oman Limited	8 York Road, London, SE1 7NA	85
Sabah Shell Petroleum Company Limited	Shell Centre, London, SE1 7NA	100
Saxon Oil Limited	8 York Road, London, SE1 7NA	100
Saxon Oil Miller Limited	8 York Road, London, SE1 7NA	100

[i] Established by BG Group plc and the BG Trustee in 2013 as part of funding agreements associated with the BG pension scheme. Under the exemption conferred by Regulation 7 of the Partnerships (Accounts) Regulations 2008, the accounts of this partnership have not been appended to Shell's Consolidated Financial Statements and have not been filed at the Companies House.

Company by country of incorporation	Address of registered office	%
Schooner Trustees Limited	Shell Centre, London, SE1 7NA	100
SELAP Limited	8 York Road, London, SE1 7NA	100
SF Investment Management Limited	Shell Centre, London, SE1 7NA	100
Shell Aircraft Limited	Shell Centre, London, SE1 7NA	100
Shell Arabia Car Service Limited	Shell Centre, London, SE1 7NA	100
Shell Aviation Limited	Shell Centre, London, SE1 7NA	100
Shell Business Development Middle East Limited	Shell Centre, London, SE1 7NA	100
Shell Caribbean Investments Limited	Shell Centre, London, SE1 7NA	100
Shell Chemical Company of Eastern Africa Limited	Shell Centre, London, SE1 7NA	100
Shell Chemicals (Hellas) Limited	Shell Centre, London, SE1 7NA	100
Shell Chemicals Limited	Shell Centre, London, SE1 7NA	100
Shell Chemicals Support Services Asia Limited	Shell Centre, London, SE1 7NA	100
Shell Chemicals U.K. Limited	Shell Centre, London, SE1 7NA	100
Shell China Exploration and Production Company Limited	Shell Centre, London, SE1 7NA	100
Shell Clair UK Limited	Shell Centre, London, SE1 7NA	100
Shell Club Corringham Limited	Shell Centre, London, SE1 7NA	100
Shell Company (Hellas) Limited	Shell Centre, London, SE1 7NA	100
Shell Company (Pacific Islands) Limited	Shell Centre, London, SE1 7NA	100
Shell Corporate Director Limited	Shell Centre, London, SE1 7NA	100
Shell Corporate Secretary Limited	Shell Centre, London, SE1 7NA	100
Shell Direct (U.K.) Limited	Shell Centre, London, SE1 7NA	100
Shell Distributor (Holdings) Limited	Shell Centre, London, SE1 7NA	100
Shell Employee Benefits Trustee Limited	Shell Centre, London, SE1 7NA	100
Shell Energy Europe Limited	Shell Centre, London, SE1 7NA	100
Shell Energy Investments Limited	Shell Centre, London, SE1 7NA	100
Shell Energy Supply UK LTD.	Shell Centre, London, SE1 7NA	100
Shell EP Offshore Ventures Limited	Shell Centre, London, SE1 7NA	100
Shell Exploration and Production Tanzania Limited	Shell Centre, London, SE1 7NA	100
Shell Gas Holdings (Malaysia) Limited	Shell Centre, London, SE1 7NA	100
Shell Hasdrubal Limited	Shell Centre, London, SE1 7NA	100
Shell Holdings (U.K.) Limited	Shell Centre, London, SE1 7NA	100
Shell Information Technology International Limited	8 York Road, London, SE1 7NA	100
Shell International Gas Limited	Shell Centre, London, SE1 7NA	100
Shell International Limited	Shell Centre, London, SE1 7NA	100
Shell International Petroleum Company Limited	Shell Centre, London, SE1 7NA	100
Shell International Trading and Shipping Company Limited	80 Strand, London, WC2R 0ZA	100
Shell Malaysia Limited	Shell Centre, London, SE1 7NA	100
Shell Marine Products Limited	Shell Centre, London, SE1 7NA	100
Shell New Energies UK Limited	Shell Centre, London, SE1 7NA	100
Shell Overseas Holdings Limited	Shell Centre, London, SE1 7NA	100
Shell Overseas Services Limited	Shell Centre, London, SE1 7NA	100
Shell Pension Reserve Company (SIPF) Limited	Shell Centre, London, SE1 7NA	100
Shell Pension Reserve Company (SOCPF) Limited	Shell Centre, London, SE1 7NA	100
Shell Pension Reserve Company (UK) Limited	Shell Centre, London, SE1 7NA	100
Shell Pensions Trust Limited	Shell Centre, London, SE1 7NA	100
Shell Property Company Limited	Shell Centre, London, SE1 7NA	100
Shell QGC Holdings Limited [i]	Shell Centre, London, SE1 7NA	100
Shell QGC Midstream 1 Limited [i]	Shell Centre, London, SE1 7NA	100
Shell QGC Midstream 2 Limited	Shell Centre, London, SE1 7NA	100
Shell QGC Upstream 1 Limited	Shell Centre, London, SE1 7NA	100
Shell QGC Upstream 2 Limited	Shell Centre, London, SE1 7NA	100
Shell Research Limited	Shell Centre, London, SE1 7NA	100
Shell Response Limited	80 Strand, London, WC2R 0ZA	100
Shell Shared Service Centre - Glasgow Limited	Shell Centre, London, SE1 7NA	100
Shell Subsidiary Distributors Pension Trustee Limited	Shell Centre, London, SE1 7NA	100
Shell Supplementary Pension Plan Trustees Limited	Shell Centre, London, SE1 7NA	100
Shell Tankers (U.K.) Limited	3 Savoy Place, London, WC2R 0DX	100
Shell Trading International Limited	Shell Centre, London, SE1 7NA	100
Shell Treasury Centre Limited	Shell Centre, London, SE1 7NA	100
Shell Treasury Dollar Company Limited	Shell Centre, London, SE1 7NA	100
Shell Treasury Euro Company Limited	Shell Centre, London, SE1 7NA	100
Shell Treasury UK Limited	Shell Centre, London, SE1 7NA	100
Shell Trinidad 5(A) Limited	Shell Centre, London, SE1 7NA	100
Shell Trinidad and Tobago Limited	Shell Centre, London, SE1 7NA	100
Shell Trinidad Block E Limited	Shell Centre, London, SE1 7NA	100
Shell Trustee Solutions Limited	1 Altens Farm Road, Nigg, Aberdeen, AB12 3FY	100
Shell Tunisia Upstream Limited	Shell Centre, London, SE1 7NA	100
Shell U.K. Limited	Shell Centre, London, SE1 7NA	100

Company by country of incorporation	Address of registered office	%
Shell U.K. North Atlantic Limited	Shell Centre, London, SE1 7NA	100
Shell U.K. Oil Products Limited	Shell Centre, London, SE1 7NA	100
Shell Upstream Overseas Services (I) Limited	Shell Centre, London, SE1 7NA	100
Shell Ventures New Zealand Limited	Shell Centre, London, SE1 7NA	100
Shell Ventures U.K. Limited	Shell Centre, London, SE1 7NA	100
Shell-Mex and B.P. Limited	Shell Centre, London, SE1 7NA	60
Stansted Fuelling Company Limited	Exxonmobil House, Ermyn Way, Leatherhead, KT22 8UX	14
Stearna Company Limited	Pannone Corporate Llp, 378-380 Deansgate, Castlefield, Manchester, M3 4LY	30
STT (Das Beneficiary) Limited [a]	Shell Centre, London, SE1 7NA	100
Synthetic Chemicals (Northern) Limited	8 York Road, London, SE1 7NA	100
Telegraph Service Stations Limited	8 York Road, London, SE1 7NA	100
The Anglo-Saxon Petroleum Company Limited	Shell Centre, London, SE1 7NA	100
The Asiatic Petroleum Company Limited	Shell Centre, London, SE1 7NA	100
The Consolidated Petroleum Company Limited	Shell Centre, London, SE1 7NA	50
The Consolidated Petroleum Supply Company Limited	Shell Centre, London, SE1 7NA	50
The Mexican Eagle Oil Company Limited	8 York Road, London, SE1 7NA	100
The New Motion EVSE Limited	4th Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA	100
The Shell Company (W.I.) Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of Hong Kong Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of India Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of Nigeria Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of Thailand Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of The Philippines Limited	Shell Centre, London, SE1 7NA	75
The Shell Company of Turkey Limited	Shell Centre, London, SE1 7NA	100
The Shell Company of West Africa Limited	Shell Centre, London, SE1 7NA	100
The Shell Marketing Company of Borneo Limited	Shell Centre, London, SE1 7NA	100
The Shell Petroleum Company Limited	Shell Centre, London, SE1 7NA	100
The Shell Transport and Trading Company Limited	Shell Centre, London, SE1 7NA	100
Thermocomfort Limited	8 York Road, London, SE1 7NA	100
UK Shell Pension Plan Trust Limited	Shell Centre, London, SE1 7NA	100
United Kingdom Oil Pipelines Limited [b]	5-7 Alexandra Road, Hemel Hempstead, Herts, HP2 5BS	48
Walton-Gatwick Pipeline Company Limited [b]	5-7 Alexandra Road, Hemel Hempstead, Herts, HP2 5BS	52
West London Pipeline and Storage Limited [b]	5-7 Alexandra Road, Hemel Hempstead, Herts, HP2 5BS	38
Wonderbill Limited	Shell Centre, London, SE1 7NA	87
Woodlea Limited	Shell Centre, London, SE1 7NA	100
UKRAINE		
Shell Ukraine Exploration and Production I LLC	4 Mykoly Grinchenka street, Kiev, 03038	100
UNITED ARAB EMIRATES		
Abu Dhabi Gas Industries Limited (GASCO)	P.O. Box 665, Abu Dhabi	15
Emdad Aviation Fuel Storage FZCO	Emdad Aviation Fuel Storage FZCO, P.O. Box 261781, Jebel Ali, Dubai	32
Sharjah Fuelling Services Company Ltd.	P.O. Box 4225, Sharjah, 4225	49
URUGUAY		
BG (Uruguay) S.A.	La Cumparsita, 1373 4th Floor, Montevideo, 11200	100
Dinarel S.A.	La Cumparsita, 1373 4th Floor, Montevideo, 11200	50
Gasoducto Cruz del Sur S.A.	La Cumparsita, 1373 4th Floor, Montevideo, 11200	40
USA		
Aera Energy LLC [b]	10000 Ming Avenue, Bakersfield, CA 93311	52
Aera Energy Services Company	10000 Ming Avenue, Bakersfield, CA 93311	50
Airbiquity Inc.	1011 Western Avenue, Suite 600, Seattle, WA 98104	26
Alba Mobility LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Amberjack Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	29
Asset Management and Power Services LLC	2441 High Timbers Drive, Suite 220, The Woodlands, TX 77380	50
Atlantic 1 Holdings LLC [c]	RL & F Service Corp, 920 N King St Floor 2, New Castle, Wilmington, DE 19801	46
Atlantic 2/3 Holdings LLC [c]	RL & F Service Corp, 920 N King St Floor 2, New Castle, Wilmington, DE 19801	58
Atlantic 4 Holdings LLC [c]	RL & F Service Corp, 920 N King St Floor 2, New Castle, Wilmington, DE 19801	51
Atlantic Shores Offshore Wind, LLC [c]	Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808	50
Au Energy, LLC	41805 Albrae Street, Fremont, CA, 94538	50
Baconton Power LLC [c]	1499 38th Boulevard N.W., Cairo, GA 31728	35
Bengal Pipeline Company LLC	Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808	29
BG Alaska E&P, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG Brasilia, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG Energy Finance, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG Energy Merchants, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG Gulf Coast LNG, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG Lake Charles Operations, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG LNG Services, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG LNG Trading, LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG North America, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100

Company by country of incorporation	Address of registered office	%
BG US Gathering Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG US Production Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
BG US Services, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Brazil Crude Services, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Brazos Wind Ventures, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Caesar Oil Pipeline Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	15
Colbea Enterprises, LLC	2050 Plainfield Pike, Cranston, RI 02921	50
Colonial Pipeline Company	Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808	13
Concha Chemical Pipeline LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Crestwood Permian Basin LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	23
CRI Catalyst Company LP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
CRI Sales and Services Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
CRI U.S. LP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
CRI Zeolites Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
CRI/Criterion, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Criterion Catalyst Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Criterion Catalysts & Technologies L.P. [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Deer Park Refining Limited Partnership [b] [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	50
Distributed Generation Solutions LLC	2441 High Timbers Drive, Suite 220, The Woodlands, TX 77380	33
Endymion Oil Pipeline Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	5
Enterprise Oil North America Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
EPP LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
Equilon Enterprises LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Explorer Pipeline Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	32
Gaviota Terminal Company [d]	150 N. Dairy Ashford, Houston, TX 77079	20
GI Endurant LLC [b]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	58
GI Energy Storage LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Husk Power Systems, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	34
Infineum USA Inc.	1900 East Linden Avenue, Linden, NJ 07036	50
Infineum USA L.P. [h]	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, DE 19808	50
Jiffy lube International, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Lake Charles Exports, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	80
Laurentide E&P, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
LOCAP LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	19
LOOP LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	46
Maple Power Holdings LLC	Bechtel Enterprises, 12011 Sunset Hills Road, Reston, VA 20190	68
Mars Oil Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	33
Mattox Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	79
Mayflower Wind Energy LLC [b] [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	50
MP2 Energy LLC [d]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Energy NE LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Energy NY LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Energy Retail Holdings LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Energy Texas LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Generation LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
MP2 Mesquite Creek Wind LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
Mpower2 LLC [c]	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
Nedpower Mount Storm LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	50
Noble Assurance Company	C T Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX 75201	100
Odyssey Pipeline LLC. [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	33
Oryx Caspian Pipeline, L.L.C. [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pacwest Energy, LLC.	3450 E. Commercial Ct., Meridian, ID 83642	50
Pecten Arabian Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Brazil Exploration Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Midstream LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	46
Pecten Orient Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Orient Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Producing Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Trading Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Victoria Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pecten Yemen Masila Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pennzoil-Quaker State Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pennzoil-Quaker State International Corporation	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Pennzoil-Quaker State Nominee Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Peru LNG Company LLC [c]	The Corporation Trust Company of Nevada, 311 South Division Street, Carson City, NV 89703	100
Poseidon Oil Pipeline Company, LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	20
Power Limited Partnership [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	16
Proteus Oil Pipeline Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	5

Company by country of incorporation	Address of registered office	%
Quaker State Investment Corporation	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
RDK Ventures, LLC	4080 West Jonathan Moore Pike, Columbus, IN 47201	50
Rilette Springs, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
RK Caspian Shipping Company, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
S T Exchange, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Salamander Solutions Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	29
San Pablo Bay Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Sand Dollar Pipeline LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	46
SCOGI GP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell (US) Gas & Power M&T Holdings, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell California Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Catalysts Ventures Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Chemical Appalachia LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Chemical LP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Chemicals Arabia LLC. [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Communications, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Deepwater Royalties Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Downstream Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Energy Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Energy Holding GP LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Energy North America (US), L.P. [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Energy Resources Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell EP Holdings Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Expatriate Employment US Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Exploration & Production Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Exploration Company Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Frontier Oil & Gas Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Gas Gathering Corp. #2	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Global Solutions (US) Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell GOM Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Gulf of Mexico Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Information Technology International Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell International Exploration and Production Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Leasing Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Marine Products (US) Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Midstream LP Holdings LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Midstream Operating LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	46
Shell Midstream Partners GP LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Midstream Partners, L.P. [h]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	46
Shell NA Gas & Power Holding Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell NA LNG LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell New Energies US LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell North America Gas & Power Services Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Offshore and Chemical Investments Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Offshore Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Offshore Response Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Oil Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Oil Company Investments Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Oil Products Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Onshore Ventures Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Petroleum Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Pipeline Company LP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Pipeline GP LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Rail Operations Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Retail and Convenience Operations LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell RSC Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Thailand E&P Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Trademark Management Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Trading (US) Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Trading North America Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Trading Risk Management, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Trading Services Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Transportation Holdings LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Treasury Center (West) Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell US E&P Investments LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell US Gas & Power LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell US Hosting Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell Ventures LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100

Company by country of incorporation	Address of registered office	%
Shell WindEnergy Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Shell WindEnergy Services Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Ship Shoal Pipeline Company [d]	150 N. Dairy Ashford, Houston, TX 77079	43
Silicon Ranch Corporation [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	44
SOI Finance Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
SOPC Holdings East LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
SOPC Holdings West LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
SOPC Southeast Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
SWEPI LP [d]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801	100
Tejas Coral GP, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Tejas Coral Holding, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Tejas Power Generation, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Texas Petroleum Group LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801 11111 Wilcrest Green, Suite 100, Houston, TX 77042	50
Texas-New Mexico Pipe Line Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
The Valley Camp Coal Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Three Wind Holdings, LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	50
TMR Company	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801 1740 Ed Temple Blvd, Nashville, TN 37208	100
Tri Star Energy LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	33
Triton Diagnostics Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Triton Terminaling LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	100
Triton West LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801 10346 Brecksville Rd, Brecksville, OH 44141	46
True North Energy LLC	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	50
URSA Oil Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	45
West Shore Pipe Line Company	Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808	19
Zeolyst International	{Mail address} 910 Louisiana Street, 29th Floor, Houston, TX 77002	50
Zydeco Pipeline Company LLC [c]	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street; Wilmington, DE 19801	50
VENEZUELA		
Shell Venezuela Productos, C.A.	Av. Orinoco, Edificio Centro Empresarial Premium, Piso 2, Oficina 2-B, Urb. Las Mercedes, Caracas, Miranda, 1060	100
Shell Venezuela, S.A.	Av. Orinoco, Edificio Centro Empresarial Premium, Piso 2, Oficinas 2-A y 2-B, Urb. Las Mercedes, Caracas, Miranda, 1060	100
Sucre Gas, S.A.	Av. Leonardo Da Vinci, Edificio PDV Servicios, Caracas, Distrito Capital	30
VIETNAM		
Shell Vietnam Ltd	Go Dau Industrial Zone, Phuoc Thai Commune, Long Thanh District, Dong Nai Province	100
ZIMBABWE		
Central African Petroleum Refineries (Private) Limited	Block 1, Tendeseka Office Park, CNR Samora Machel Avenue, Renfrew Road, Harare	21

# Exhibit 12.1

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I, Ben van Beurden, certify that:

1. I have reviewed this Annual Report on Form 20-F of Royal Dutch Shell plc (the Company);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

/s/ Ben van Beurden

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**Ben van Beurden**  
Chief Executive Officer  
March 13, 2019

## Exhibit 12.2

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I, Jessica Uhl, certify that:

1. I have reviewed this Annual Report on Form 20-F of Royal Dutch Shell plc (the Company);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

/s/ Jessica Uhl

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**Jessica Uhl**  
Chief Financial Officer  
March 13, 2019

## Exhibit 13.1

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In connection with the Annual Report on Form 20-F of Royal Dutch Shell plc, a public limited company organized under the laws of England and Wales (the Company), for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the Report), each of the undersigned officers of the Company certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to such officer's knowledge, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Report.

The foregoing certification is provided solely for purposes of complying with the provisions of Section 906 of the Sarbanes-Oxley Act of 2002 and is not intended to be used or relied upon for any other purpose.

/s/ Ben van Beurden

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**Ben van Beurden**

Chief Executive Officer

/s/ Jessica Uhl

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**Jessica Uhl**

Chief Financial Officer

March 13, 2019

# Exhibit 99.1

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## **CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement on Form F-3 (No. 333-222005) and the Registration Statements on Form S-8 (No. 333-126715, 333-141397, 333-171206, 333-192821, 333-200953, 333-215273, 333-222813, and 333-228137) of Royal Dutch Shell plc of our reports dated March 13, 2019, with respect to the Consolidated Financial Statements and the effectiveness of internal control over financial reporting of Royal Dutch Shell plc, included in the Annual Report on Form 20-F for the year ended December 31, 2018.

/s/ Ernst & Young LLP

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**Ernst & Young LLP**

London, United Kingdom  
March 13, 2019

## Exhibit 99.2

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### **CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement on Form F-3 (No. 333-222005) and the Registration Statements on Form S-8 (No. 333-126715, 333-141397, 333-171206, 333-192821, 333-200953, 333-215273, 333-222813, and 333-228137) of Royal Dutch Shell plc of our reports dated March 13, 2019, with respect to the Royal Dutch Shell Dividend Access Trust Financial Statements and the effectiveness of internal control over financial reporting of the Royal Dutch Shell Dividend Access Trust, included in the Annual Report on Form 20-F for the year ended December 31, 2018.

/s/ Ernst & Young LLP

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**Ernst & Young LLP**  
London, United Kingdom  
March 13, 2019

# Notes

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## Notes

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## FINANCIAL CALENDAR IN 2019

The Annual General Meeting will be held on May 21, 2019.

	2018 Fourth quarter [A]	2019 First quarter [B]	2019 Second quarter [B]	2019 Third quarter [B]
Results announcements	January 31	May 2	August 1	October 31
Interim dividend timetable				
Announcement date	January 31 [C]	May 2	August 1	October 31
Ex-dividend date [D]	February 14	May 16	August 15	November 14
Record date	February 15	May 17	August 16	November 15
Closing of currency election date [E]	March 1	June 3	September 2	November 29
Pounds sterling and euro equivalents announcement date	March 11	June 11	September 9	December 5
Payment date	March 25	June 24	September 23	December 18

[A] In respect of the financial year ended December 31, 2018.

[B] In respect of the financial year ended December 31, 2019.

[C] The Directors do not propose to recommend any further distribution in respect of 2018.

[D] The New York Stock Exchange (NYSE), with effect from September 5, 2017, reduced the standard settlement cycle in accordance with the SEC amendments to Exchange Act Rule 15c6-1(a). Under these rules, regular settlement will occur on a T+2 basis for trades occurring on or after the SEC's implementation date of September 5, 2017. As a result RDS A ADSs and RDS B ADSs traded on the NYSE markets will now settle in line with RDS A shares and RDS B shares traded on European markets, who moved to a T+2 settlement basis for trades in 2014, resulting in the same ex-dividend date for RDS A shares, RDS B shares, RDS A ADSs and RDS B ADSs. Record dates will not change. The timings of these are detailed above.

[E] A different currency election date may apply to shareholders holding shares in a securities account with a bank or financial institution ultimately through Euroclear Nederland. This may also apply to other shareholders who do not hold their shares either directly on the Register of Members or in the corporate sponsored nominee arrangement. Shareholders can contact their broker, financial intermediary, bank or financial institution for the election deadline that applies.

### REGISTERED OFFICE

Royal Dutch Shell plc  
Shell Centre  
London SE1 7NA  
United Kingdom

Registered in England and Wales  
Company number 4366849

Registered with the Dutch Trade Register  
under number 34179503

### HEADQUARTERS

Royal Dutch Shell plc  
Carel van Bylandtlaan 30  
2596 HR The Hague  
The Netherlands

### SHAREHOLDER RELATIONS

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+31 (0)70 377 1365  
+31 (0)70 377 4088  
or  
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[www.shell.com/shareholder](http://www.shell.com/shareholder)

### INVESTOR RELATIONS

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### SHARE REGISTRATION

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+44 (0)121 415 7073

For online information about your holding  
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[www.shareview.co.uk](http://www.shareview.co.uk)

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+1 651 453 2128 (International)  
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- Report on our progress in contributing to sustainable development