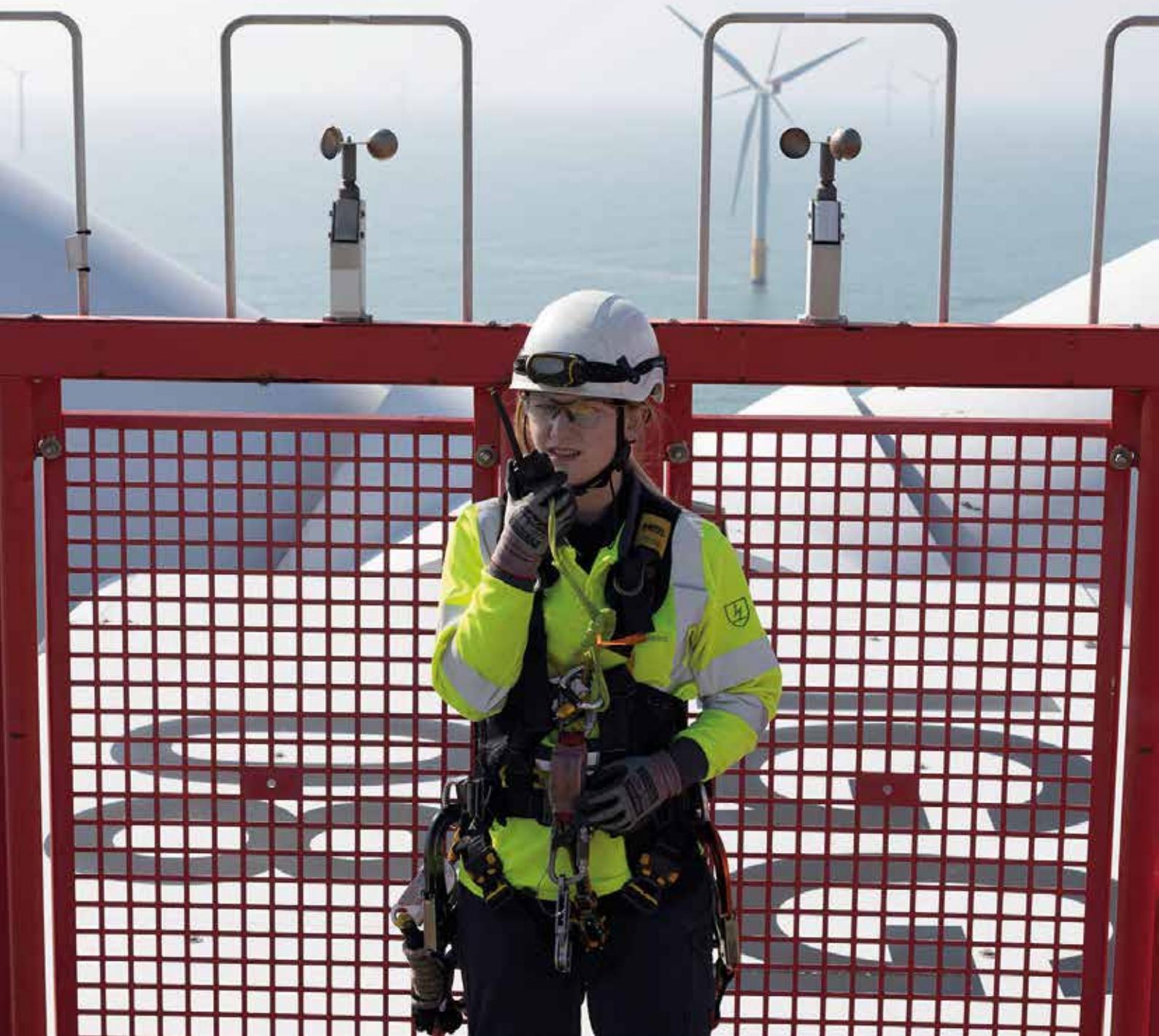


# POWERING **CHANGE**

SSE PLC SUSTAINABILITY REPORT 2021



SSE has the largest renewable electricity portfolio in the UK and Ireland, providing energy needed today while building a better world of energy for tomorrow. It develops, builds, operates and invests in low-carbon infrastructure in support of the transition to net-zero, including onshore and offshore wind, hydro power, electricity transmission and distribution networks, alongside providing energy products and services to customers.

UK-listed and headquartered in Perth, SSE is a major contributor to the economies in the UK and Ireland. It employs more than 10,000 people and is real Living Wage and Fair Tax Mark accredited.

This Sustainability Report for the period 1 April 2020 to 31 March 2021 aims to provide enhanced disclosure of SSE's policies, practice and performance against its key economic, social and environmental impacts and goals. On occasion the report refers to activities of joint ventures and in these instances it is made clear this is the case.



#### Stories in action

Throughout this report, SSE's sustainability policies, practice and performance are brought to life through stories in action identified with the following icons:



Engagement  
in action



Innovation  
in action



Partnering  
in action



Dilemma

#### Alternative Performance Measures

SSE assesses the performance of the Group using a variety of performance measures. These measures are not all defined under IFRS and are therefore termed 'non-GAAP' measures. A reconciliation from these non-GAAP measures to the nearest prepared measure in accordance with IFRS is presented and described on pages 172 to 177 of the Annual Report 2021. The alternative performance measures SSE uses might not be directly comparable with similarly titled measures used by other companies.



The SSE plc Sustainability Report 2021 is complemented by SSE's Annual Report 2021 which can be found online at [sse.com](http://sse.com).

Our cover: Jasmine Allen emerges from the nacelle of one of the turbines at Greater Gabbard wind farm, 12 miles off the coast of Suffolk. Jasmine, 21, is an apprentice in SSE Renewables and featured in SSE's 2021 brand campaign in the lead-up to COP26.

## THE YEAR IN NUMBERS

ABSOLUTE EMISSIONS  
(SCOPE 1 AND 2)

**7.6MtCO<sub>2</sub>e**

RENEWABLES CONNECTED TO SSEN  
TRANSMISSION'S NETWORK

**6.7GW**

NUMBER OF SAFE DAYS

**271**

UK/IRELAND TAXES PAID

**£379m/€20.4m**

UK/IRELAND ECONOMIC CONTRIBUTION

**£5.2bn/€439m**

RENEWABLES IN CONSTRUCTION  
AND OPERATION

**5.8GW**

MEDIAN GENDER PAY GAP (UK)  
AND OPERATION

**18.3%**

RENEWABLES COMMUNITY FUNDS  
AND OPERATION

**£10.2m**

## Coronavirus statement

The report covers the first full year of operations within the constraints of the coronavirus pandemic. Thanks to a highly resilient business model and the commitment and flexibility of its employees, SSE maintained the safe and reliable supply of electricity throughout the year and did not draw on furlough or rates relief in doing so. Further detail of SSE's response to the coronavirus outbreak can be found on [sse.com/coronavirus](http://sse.com/coronavirus) and throughout this report.

## Contents

CHIEF EXECUTIVE'S STATEMENT	3
SSE'S BUSINESS MODEL	4
STRUCTURED SUSTAINABILITY GOVERNANCE	9
IDENTIFYING MATERIAL ISSUES	10
TAKING MEANINGFUL CLIMATE ACTION	18
CLIMATE-RELATED FINANCIAL DISCLOSURE	26
PROTECTING THE NATURAL ENVIRONMENT	36
PROVIDING AFFORDABLE AND CLEAN ENERGY	42
INVESTING IN INDUSTRY, INNOVATION AND INFRASTRUCTURE	52
DELIVERING A JUST TRANSITION TO NET ZERO	66
COMMITTED TO DECENT WORK AND ECONOMIC GROWTH	70
DATA AND PERFORMANCE	94



## CHIEF EXECUTIVE'S STATEMENT

# POWERING SUSTAINABLE CHANGE

With all eyes on COP26 in Glasgow later this year, SSE is focused on the practical and positive action required to build a net zero carbon economy.

The coronavirus pandemic demonstrated powerfully the nature of our interconnected world and the importance of co-ordinated and collaborative action across borders.

As we look forward to the most important international conference on climate change since the Paris Agreement, the imperative to transform our businesses and economies has never felt so urgent. With average global temperatures reaching 1.2°C above pre-industrial levels, **the window of opportunity to prevent rises above 1.5°C is closing**. It is therefore both a privilege and a responsibility to be a Principal Partner of the UK Government's presidency of COP26 in Glasgow this November. SSE's role as a sponsor is to be a positive contributor before, during and after the conference through the practical action that removes carbon emissions from the electricity system.

Right now, SSE is constructing more offshore wind generation capacity than any other company in the world and we continue to build new pipelines for the future too. We are tackling, head on, the complexity of removing carbon emissions from flexible thermal generation, so that homes and businesses can be assured of the secure electricity supplies they have, rightly, got used to. These are the practical actions that must be replicated in every electricity system in the world, if the objectives of COP26 are to be met.

The purpose of this report, however, is to disclose to our shareholders and stakeholders the policies, practices and performance of efforts to be continuously more sustainable in our business activity. As we pursue our vision to be a leading energy company in a

net zero world, our business strategy deliberately reflects our objective to create value simultaneously for shareholders and society.

The greatest impact we make is to **deliver the profitable solutions to climate change**. From the development of awe-inspiring offshore wind farms and incredible subsea transmission infrastructure, to the complexity of repurposing thermal generation assets to support a renewables-led energy system, SSE is in the business of climate action that transitions our energy system to a net zero world. And in doing so, we support green economic activity, creating jobs, prosperity and fair returns to our shareholders.

In this years' report, we spell out the role of each of SSE's business units in the mission to establish net zero. And because **a net zero economy is as much about people as it is about technology, assets and infrastructure**, we outline the principles that guide us to help deliver fairness as we transform to a carbon free society.

This notion of a 'Just Transition' to net zero is something we have considered throughout 2020/21. Inspired by a thoughtful question at our 2020 Annual General Meeting we published our Just Transition Strategy in November. That strategy has prompted further work, particularly in our electricity distribution business plans and with our supply chain partners: with the respective objectives of ensuring universal access to the wonders of smart local grids; and, sharing economic opportunities with local people from a growing offshore wind industry.

Long term environmental and social

sustainability requires constant and creative innovation. The potential of greater digitalisation in our industry enables us to achieve more, for less. Innovation can also provide answers to the emerging challenges of our time: from restoring nature to reusing materials in a way that eradicates the notion of 'waste'. These are issues for the future, but this year's report places significance on the importance of a culture of ongoing innovation for the benefit of all SSE's stakeholders.

That culture of innovation is also designed to ensure we are alive to the constant need to update our sustainability objectives and, **in 2021/22, we look forward to a review of our 2030 Goals** to ensure they remain stretching right to the end of the decade.

Finally, the spirit in which this report is published is to stimulate further engagement and feedback from the many interested people and parties that have an interest in SSE. As always, I would encourage you to **get in touch with us directly**, using the email address [sustainability@sse.com](mailto:sustainability@sse.com).

**Alistair Phillips-Davies**  
Chief Executive  
18 June 2021



## OUR BUSINESS MODEL

# SSE'S BUSINESS MODEL

Sustainability is embedded throughout SSE's business model, from its strategic pillars to what it does and who it does it for.

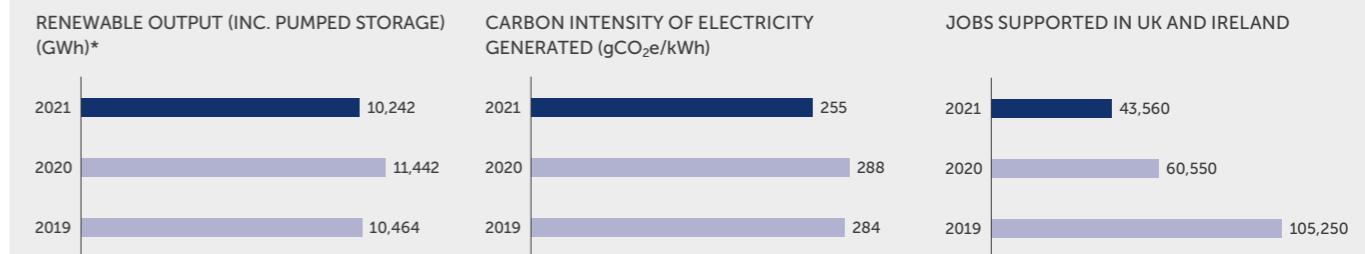
## SSE'S PURPOSE AND STRATEGY



## CREATING VALUE FOR SHAREHOLDERS AND SOCIETY

Along with key financial metrics, SSE reports on a number of non-financial KPIs, recognising the wider value that the business creates for society.

## Non-financial KPIs



**Strategic relevance:** Renewables are core to SSE's business strategy, which is centred around the net zero transition. SSE has a goal of trebling its renewable output by 2030.

**Performance:** Whilst renewable output decreased slightly due to unfavourable weather conditions across wind and hydro, SSE Renewables' portfolio proved to be highly resilient.

\*Includes pumped storage, biomass and constrained off wind in GB.



**Strategic relevance:** Safety is SSE's No. 1 value, and everybody in the Company operates to the safety licence of "if it's not safe, we don't do it".

**Performance:** Against the backdrop of a challenging year, SSE's TRIR has decreased to 0.15, making 2020/21 SSE's best year on record for safety performance.

**Strategic relevance:** Taxes support the public services everyone relies on. When companies do well, they should share their success with society through the payment of taxes.

**Performance:** Taxes paid in the UK decreased slightly in 2020/21 and increased in the Republic of Ireland.

## OUR BUSINESS MODEL

### SSE'S BUSINESSES AND HOW THEY CONTRIBUTE TO NET ZERO

SSE is led by its purpose to provide energy needed today while building a better world of energy for tomorrow and is principally involved in the generation, transmission and distribution of electricity; and also in the supply of energy and related services to customers in the UK and Ireland. Renewable electricity generation and electricity networks form the low-carbon electricity core of SSE. Complementing this core, flexible thermal generation is undergoing its own transition for a net zero world, customer facing businesses provide both a route to market and solutions for customers to reduce their carbon emissions and its Enterprise business provides distributed energy solutions for businesses and organisations.

#### SSE Renewables

##### **What it does**

Develops, builds, operates and invests in assets that generate electricity from renewable sources.

##### **How it supports net zero**

Develops and generates zero-carbon electricity at large scale from onshore and offshore wind farms and provides clean flexible power from hydro-electricity schemes.

**5.8GW**

Renewable generation capacity in construction and operation

#### SSEN Distribution

##### **What it does**

Responsible for safely and reliably maintaining the electricity distribution networks, supplying homes and businesses across central southern England and the north of Scotland.

##### **How it supports net zero**

Through the timely connection of local renewables and the coordinated delivery of network investment and flexible solutions to alleviate network constraints and enable the electrification and, therefore, decarbonisation of other energy sectors including transport and heat.

**3.8 million**

Homes and businesses supplied by SSEN Distribution

**6.7GW**

Renewable generation capacity connected to SSEN Transmission's network

#### SSE Thermal

##### **What it does**

Generates electricity from thermal sources in a flexible and reliable way, and its gas storage business holds around 40% of the UK's underground capacity, supporting security of supplies in the UK.

##### **How it supports net zero**

Supports the electricity system with important services that keeps the electricity system secure, provides flexibility to facilitate increasing levels of renewable electricity, at the same time as undertaking its own transition to progressively reduce the carbon emissions associated with its activities.

**5GW**

Installed thermal generation capacity

#### Customers

##### **What it does**

SSE Business Energy and SSE Airtricity provide energy and related services to households, businesses and public sector organisations across GB and the island of Ireland.

##### **How it supports net zero**

Increases the accessibility of green energy solutions, acting as a partner to customers and stakeholders as they seek ways to respond to the climate crisis and provides a route to market for SSE's renewable electricity output.

**c.1.2 million**

Domestic and business customer accounts

#### SSE Enterprise

##### **What it does**

Provides localised flexible energy infrastructure to public sector, commercial and industrial markets in the UK, as well as the 'Energy as a Service' platform and digital services.

##### **How it supports net zero**

Through offering grid edge services, bringing low-carbon, on-site generation, storage and delivery flexibility close to the point of use, and offering local 'whole system' approach.

**c. 10,500**

Heat network customer accounts

#### Energy Portfolio Management

##### **What it does**

Secures value for SSE's asset portfolios in wholesale energy markets and manages volatility through risk-managed trading of energy-related commodities.

##### **How it supports net zero**

Provides efficient route-to-market for low-carbon electricity, supports system balancing and provides energy solutions for business energy customers.



## STRUCTURED SUSTAINABILITY GOVERNANCE

# STRUCTURED SUSTAINABILITY GOVERNANCE

**Strong governance and clear lines of accountability support the delivery of sustainable outcomes for SSE and its stakeholders.**

The governance structures of sustainability continue to serve SSE well. With sustainability hardwired into the responsibilities of the Board, the Chief Executive and the wider Group Executive Committee, responsibility for the most material sustainable impacts lie at the highest levels of the organisation. With the quantity and diversity of environment, social and governance (ESG) issues of increasing interest to stakeholders SSE is undergoing a process to strengthen governance pathways further.



**"The good governance of sustainability policies, practice and performance aids the delivery of SSE's environmental and social objectives which, in turn, supports the achievement of SSE's strategy to create value for both shareholders and society."**

Helen Mahy CBE, Chair, SHEAC

### Sustainability governance structure 2020/21\*



\*Diagram represents the relevant committees and sub-committees in relation to sustainability. For SSE's full Governance Framework, see page 102 of its Annual Report 2021.

### The Board and its sub-committees

At the highest level, the Board sets SSE's vision and purpose. The Group strategy that seeks to fulfil that vision and purpose is also set by the Board and reviewed annually. Sustainability is articulated within the description of SSE's strategy given the close alignment between its strategy and the pursuit of net zero. In meeting both the spirit and letter of the Companies' Act Section 172 responsibilities, including taking decisions about long term consequences and promoting the success of the company for the benefit of all stakeholders, the Board approves the framework for engaging with its key, defined stakeholder groups. During 2020/21, the Board reviewed and approved SSE's Group Policies, including specific policy statements on human rights, the environment, climate change and sustainability. While the purpose of these policies is to guide the behaviours, actions and decisions of SSE employees and their senior leaders, those of material interest to stakeholders can be viewed on [sse.com/sustainability](http://sse.com/sustainability).

The Board also approves annually SSE's priorities relating to its principal sustainability impacts, of which, climate change is defined as the most material of all. Sustainability and climate-related issues are considered by the Board throughout the year.

The Board is advised on matters related to safety, health and the environment by the **Safety, Health and Environment Advisory Committee (SHEAC)**, which continues to be chaired by an independent non-Executive Director. Its membership comprises three non-Executive Directors and five Executive Directors. The SHEAC has oversight of the annual SSE Sustainability Report. As a result of a review at the end of 2020/21, the Board agreed in April 2021 to enhance the responsibilities of the SHEAC to incorporate further oversight of SSE's overall performance in ESG ratings and reviews. The title of the Committee will change in 2021/22 to include sustainability.

The **Remuneration Committee** is also

chaired by an independent non-Executive Director of the Board. It prepares SSE's policy on executive remuneration for the approval of shareholders and assesses Executive Directors' performance in relation to progress towards SSE's four business goals for 2030 which are aligned to the UN's SDGs. 2020/21 is the second time Directors have been assessed against these criteria, see pages 96 to 97 for more information. The Remuneration Committee is undertaking its three-yearly review of its Remuneration Policy through 2021/22 and as part of that, consideration will be made to the potential of embedding sustainability metrics within long-term incentive plans, in addition to the Annual Incentive Plan.

While not referenced within the structure chart outlined opposite, the **Audit Committee** of the Board has responsibilities relating to the effective management of risk. From 2021/22, as a result of a review of sustainability governance pathways, the Audit Committee will also take oversight of SSE's annual Task Force on Climate-Related Financial Disclosures (TCFD) report.

### The Group Executive Committee and its sub-Committees

SSE's **Group Executive Committee** (GEC) is responsible for implementing strategy, as approved by the Board, including Group Policies and the management of risks. The GEC agrees priorities relating to its most material social, environmental and economic impacts. The Chief Executive chairs the GEC and as Executive Director with responsibility for sustainability, agrees the annual objectives and priorities for the Chief Sustainability Officer.

The **Group Risk Committee** is responsible for managing the processes in place to assess and monitor the Group Principal Risks and provides oversight of Business Unit risks. The Human Rights Steering Group, responsible for the production of the annual Modern Slavery Statement, and the action plans that fall underneath, reports to the Group Risk Committee. In 2020/21, the Group Risk Committee also

had oversight of the internal process to identify and quantify the most material climate-related risks and opportunities, forming the core of the TCFD report on pages 26 to 35.

The **Safety Health and Environment Committee** is responsible for the careful management of safety, health and environment matters across the SSE Group.

### SSEPD Board and its sub-Committee

SSE's two electricity networks businesses, SSEN Transmission and SSEN Distribution, have a dedicated governance framework underneath the SSE plc Board, reflecting business separation obligations under their Ofgem licences. The **SSEPD Board** is chaired by the SSE Finance Director and comprises Executive Directors from the two businesses, non-Executive Directors from the SSE Group and two independent non-Executive Directors. It is responsible for the oversight of SSEN's most material sustainability impacts.

The **Sustainability Sub-Committee** of the SSEPD Board governs the sustainability strategies of both SSEN Distribution and SSEN Transmission, comprising of one independent non-Executive Director, the Group Chief Sustainability Officer and Executives from each of the respective businesses.

### Chief Sustainability Officer

The role of Chief Sustainability Officer (CSO) was established in 2019, reporting directly to the Chief Executive and is responsible for advising the Board and its Committees, the GEC and individual Business Units on sustainability issues and strategy.

To further support the integration of sustainability within the governance structures of SSE, the CSO is a member of the SHEAC and two of the four Group-level sub-Committees of the GEC: the Risk Committee and the Safety, Health and Environment Committee; and is also a non-Executive Director of the SSEPD Board and its Sustainability Sub-Committee.

## IDENTIFYING MATERIAL ISSUES

# IDENTIFYING MATERIAL ISSUES

SSE considers issues material if they have the potential to have considerable impact on its operations or its stakeholders, either positively or negatively.

The overwhelming challenge facing the energy industry as a whole is to maintain secure and affordable supplies of energy at the same time as cutting carbon to tackle climate change. These three, sometimes competing, factors: decarbonisation; affordability; and, security of supply, have been described as the 'energy trilemma' and remain the most important balance for an energy company to strike.

In addition to this overarching challenge, there are many other related material internal and external factors that SSE considers through a range of well-established channels outlined in this section. They all have a role to play in a comprehensive assessment of SSE's most material issues.

<b>Emerging trends</b>	<b>Page 12</b>
<b>Working with and for stakeholders</b>	<b>Page 14</b>
<b>Group Principal Risks</b>	<b>Page 15</b>
<b>Global frameworks and partnerships</b>	<b>Page 16</b>
<b>Aligning to the UN's SDGs</b>	<b>Page 17</b>



"The first, most important step in ensuring SSE's long-term sustainability is to deeply understand the materiality of the impacts we make on the outside world. To achieve that, SSE must listen carefully to the perspectives of a multitude of stakeholders; pay close attention to economic and social trends; and, align to international and national frameworks designed to create a more sustainable world."

**Rachel McEwen,**  
Chief Sustainability Officer

## IDENTIFYING MATERIAL ISSUES

### EMERGING TRENDS

An organisation's long-term sustainability is, in part, determined by its ability to identify and respond to emerging trends in its external environment. In 2020/21, the case for social and environmental impact was given greater impetus through the combined global challenges of the coronavirus pandemic and the urgency of climate change.

### CLIMATE ACTION

## GLOBAL MOMENTUM TO TACKLE CLIMATE CHANGE

While the imperative to tackle climate change has been clear since the Rio Summit in 1992, the political and policy response has ratcheted up since the Paris Agreement in 2015. In 2018, the Intergovernmental Panel on Climate Change (IPCC) report outlined in detail the consequences of a world warmed on average by 1.5°C. It was this report that supported the adoption of net zero laws and regulations in the UK, Ireland and beyond.

In 2020/21, this momentum continued. With the USA rejoining the Paris Agreement in January 2021 and the commitment made in October 2020 by China for carbon neutrality by 2060, COP26 in Glasgow later this year provides a platform for the publication of further nation state Nationally

### THE NATURE EMERGENCY

## A GOAL FOR NATURE: NATURE POSITIVE BY 2030

**"The climate and biodiversity crises are inextricably linked – fail to solve one, and we fail on both. We need to address both complex challenges to reach a future that is nature-positive, carbon-neutral, and equitable for all."**

**Joint letter in The Independent from the organisations behind 'Nature Positive', November 2020**

Determined Contributions (NDC). The UK Government's own, highly stretching NDC that will reduce UK greenhouse gas emissions by 78% between 1990 and 2035 is expected to be enshrined in law by the end of June 2021.

From SSE's perspective, the increasing consensus to ongoing climate action is welcome. In the first instance it helps to reduce the risk of climate policies and interventions being watered down and, therefore, reduces political risk associated with the investments it is making in low-carbon infrastructure. Secondly, and more importantly, the consensus in favour of climate action establishes a wealth of opportunity to pursue net-zero investment that helps generate future prosperity across the world.

However, SSE is mindful that climate science suggests the world has already warmed to 1.2°C above pre-industrial levels, and that 1.5°C warming may be reached as early as 2034. It therefore is conscious that there may be further calls for increased acceleration of net zero policies globally and policy may be required to adapt.

**"Scientists tell us that this is the decisive decade – this is the decade we must make decisions that will avoid the worst consequences of the climate crisis."**

**President Joe Biden,**  
April 2021

The risks associated with the decline of nature are now well understood. The annual World Economic Forum's Global Risk Report, published in January 2021, identified both biodiversity loss and human environmental damage as high risk for both likelihood and impact.

The efforts by a group of business and environmental organisations to create a framework for a global goal to restore nature, akin to the science-based targets framework for climate, appears to be

making progress. SSE's own effort to implement methodologies that define the concept of 'biodiversity net gain' in the development of its electricity transmission infrastructure, means it understands the scientific complexity of establishing a common goal for society which is supported and contributed to by business. SSE believes such a goal has the potential to be very powerful. It supports the concept in principle and will engage positively with any framework that emerges in the coming months.



### GLOBAL TAX REFORM

## A MINIMUM GLOBAL RATE OF CORPORATION TAX

While SSE has long believed that corporation tax is an important tax that cements the connection between businesses that are profitable and the people they serve, it also believes that international co-operation on tax is vital. It supports the Fair Tax Foundation's efforts to establish a voluntary framework for good multinational businesses to demonstrate that they play fair with tax, paying the right amount, in the right place and at the right time.

SSE is taking a keen interest in recent efforts initiated by the USA to establish a global minimum corporation tax rate and believes healthy intergovernmental collaboration on tax supports good competition and the sustainable development of economies.

SSE also notes that international collaboration on corporation tax sends a positive signal for the potential for international collaboration on carbon pricing. While a single global price for carbon is unlikely to be practical in the short term, SSE continues to believe that a more international price for carbon based on cooperation and forms of linkages between regional Emissions Trading Systems (ETSs) has potential in delivering a fair and lower cost pathway to decarbonise all national economies.

SSE believes this is a particularly important point post-Brexit and firmly supports the establishment of a firm link between the UK Emissions Trading Scheme and the European one.

**"Together we can use a global minimum tax to make sure the global economy thrives based on a more level playing field in the taxation of multinational corporations, and spurs innovation, growth and prosperity."**

**Janet Yellen, US Treasury Secretary,**  
April 2021

### STANDARDISED ESG METRICS

## THE PROSPECT OF COMMON INTERNATIONAL ESG STANDARDS

**"ESG investing is moving well beyond negative screening and towards finding companies that are truly creating value."**

**Mark Carney, UN Special Envoy for Climate and Finance,**  
November 2020

2020 was another record-breaking year for sustainable investing. The trend where significant capital flows towards companies that can demonstrate good performance as a result of their environmental, social and governance (ESG) policies and practice has continued throughout the year. According to the European Fund and Asset Management Association, net assets in European ESG funds grew to €1.2 trillion in 2020, up 37% from 2019, compared to a 4.8% increase in non-ESG funds.

At the same time, there has been an ongoing debate about the future of common standards in ESG disclosure. With more mandated non-financial disclosure, from a tightened Non-Financial

Reporting Directive in the EU to mandated TCFD reports in the UK, the potential for consolidation of ESG standards and existing voluntary frameworks appears to be gaining momentum. Proposals from the International Financial Reporting Standards (IFRS) for a common set of metrics may provide a global uniform framework which all companies can adopt.

SSE will continue to engage comprehensively with any investor that wishes to scrutinise its ESG policies, practice and performance, believing that such accountability is a powerful driver for performance improvements itself. It will, however, welcome greater consolidation of the ESG metrics by which it is judged.

## IDENTIFYING MATERIAL ISSUES

### WORKING WITH AND FOR STAKEHOLDERS

The essential nature of SSE's core product, energy, means there is a wide range of stakeholders who have a direct interest in SSE and whose perspectives must be considered if it is to achieve its business objectives.

#### SSE's approach to stakeholder engagement

SSE understands that there is an effective social contract between the company and the society within which it operates. At the core of that contract is a reciprocal relationship between SSE and its stakeholders, with SSE relying on a range of inputs, in return for which value is generated and shared.

SSE interacts with a vast array of stakeholders every single day. Its approach to stakeholder engagement seeks to ensure that stakeholder

perspectives are built into its business plans and objectives every step of the way: from project planning, project delivery and onwards through long-term operations and customer service. It therefore promotes an open and transparent approach to stakeholder engagement which is supported by accountability at both Group and Business Unit level.

SSE adopts a range of engagement methods to build those reciprocal relationships. These methods exist in a strategic framework that is a combination of business-led and

#### Employees

We engage to attract, retain and develop a diverse and talented workforce now and for the future.

See pages 82 to 93

#### Shareholders and debt providers

We engage to ensure confidence and support from those that invest in and lend to SSE.

See SSE's Annual Report 2021

#### Energy customers

We engage to support an accessible low-carbon energy system that represents value for customers' money.

See pages 46 to 51

#### Government and regulators

We engage to ensure fair energy sector frameworks for energy customers and investors that support progress to net zero at the required pace.

See page 21

#### NGOs, communities and civil society

We engage to support the achievement of shared goals with social benefit.

See pages 73 to 93

#### Suppliers, contractors and partners

We engage to support the greatest all-round value from our investments.

See pages 74 to 77

#### Creating value through stakeholder collaboration

Throughout this report, SSE provides case studies and dilemmas to demonstrate practical real-life examples of projects that have been undertaken with and for its stakeholders. These are highlighted using the below icons.



Engagement in action



Innovation in action



Partnering in action



Dilemma

### GROUP PRINCIPAL RISKS

The execution of SSE's strategy and delivery of its purpose is dependent on the effective identification, understanding and mitigation of the Group's Principal Risks.

#### Sustainability in the Group Principal Risk context

Whilst all the Group Principal Risks are relevant to the sustainable development of SSE, those defined as being particular significance to social and environmental impacts are outlined below. More information can be found in SSE's Group Principal Risk report and SSE's Annual Report 2021, pages 54 to 63, which detail key developments during the year and key mitigations SSE has in place. SSE has also outlined key developments associated with coronavirus for each Group Principal Risk.

#### Climate Change

The risk that SSE's strategy, investments or operations are deemed to have an unacceptable future impact on the natural environment and on national and international targets to tackle climate change.

The physical impacts of climate change, such as severe weather that can interrupt energy supply or generation, and the transitional risks relating to developments in political and regulatory requirements on the products and services SSE provides, have potential to impact SSE's operations. SSE work to reduce its impact on climate change and the consideration of longer-term key climate-related risks and opportunities that face its business is detailed on pages 26 to 35.

#### Energy Affordability

The risk that energy customers' ability to meet the costs of providing energy, or their ability to access energy services is limited, giving rise to negative political or regulatory intervention that has an impact on SSE's core regulated Networks and Renewables businesses.

SSE seeks to support the transition to net zero through disciplined investment in developing and operating low-carbon energy infrastructure, and delivering this in a way that represents value for money for energy customers. It works to ensure that the energy it supplies to customers is not only affordable but is accessible too, and it strives to offer services that are inclusive to all. See pages 44 to 51.

#### Large Capital Projects Management

The risk that SSE develops and builds major assets that do not realise intended benefits or meet the quality standards required to support economic lives of typically 15 to 30 years within forecast timescales and budgets.

SSE's investment in large infrastructure projects can have considerable social, economic and environmental consequences. To deliver high-quality projects, SSE works closely with suppliers and contractors to ensure its values on issues such as environmental protection, safety and other social issues, are upheld. SSE's work to promote and embed sustainability within its supply chain is detailed on pages 74 to 75.

#### People and Culture

The risk that SSE is unable to attract, develop and retain an appropriately skilled, diverse and responsible workforce and leadership team, and maintain a healthy business culture which encourages and supports ethical behaviours and decision making.

The talents, skills and values of SSE's employees enable it to fulfil its purpose and achieve its strategic goals. SSE has a long-standing commitment to fair and decent work and seeks to provide an inclusive, fulfilling and high-performing workplace. SSE's responsible approach to attracting, developing and retaining a future skilled workforce is detailed on pages 82 to 93.

#### Politics, Regulation and Compliance

The risk from changes in obligations arising from operating in markets which are subject to a high degree of regulatory, legislative and political intervention and uncertainty.

SSE aims to work constructively with governments and regulators to help deliver net zero, whilst ensuring the energy system works in the interest of energy customers. SSE's activities are influenced by international and national agreements on climate change, and sustainability issues are increasingly included in regulatory and legislative requirements. See page 21.

#### Safety and the Environment

The risk of harm to people, property or the environment from SSE's operations.

SSE has an uncompromising commitment to keep people safe and healthy, and to respect the environment in which it operates. SSE's working environment includes challenging geographic locations and adverse weather conditions, which can impact its activities. It has clear safety and environmental processes and training in place to address these risks. SSE's safety, health and environment performance and initiatives are detailed on pages 140 to 143 of SSE's Annual Report 2021.

## IDENTIFYING MATERIAL ISSUES

### GLOBAL FRAMEWORKS AND PARTNERSHIPS

External frameworks and partnerships are key to understanding and prioritising SSE's material sustainability impacts and guide its disclosures.

#### Aligning to international principles

SSE is a signatory to the United Nations Global Compact (UNGC) and is guided by their Ten Principles focused on the environment, human rights, labour and anti-corruption. SSE believes that these principles represent the foundation of any responsible business and that they must be met as a minimum, with businesses seeking to go beyond them where possible to create value for stakeholders. Information on how SSE meets the Ten Principles of the UNGC is disclosed throughout this report, but is also summarised on [sse.com/sustainability](http://sse.com/sustainability).



#### Global disclosure frameworks

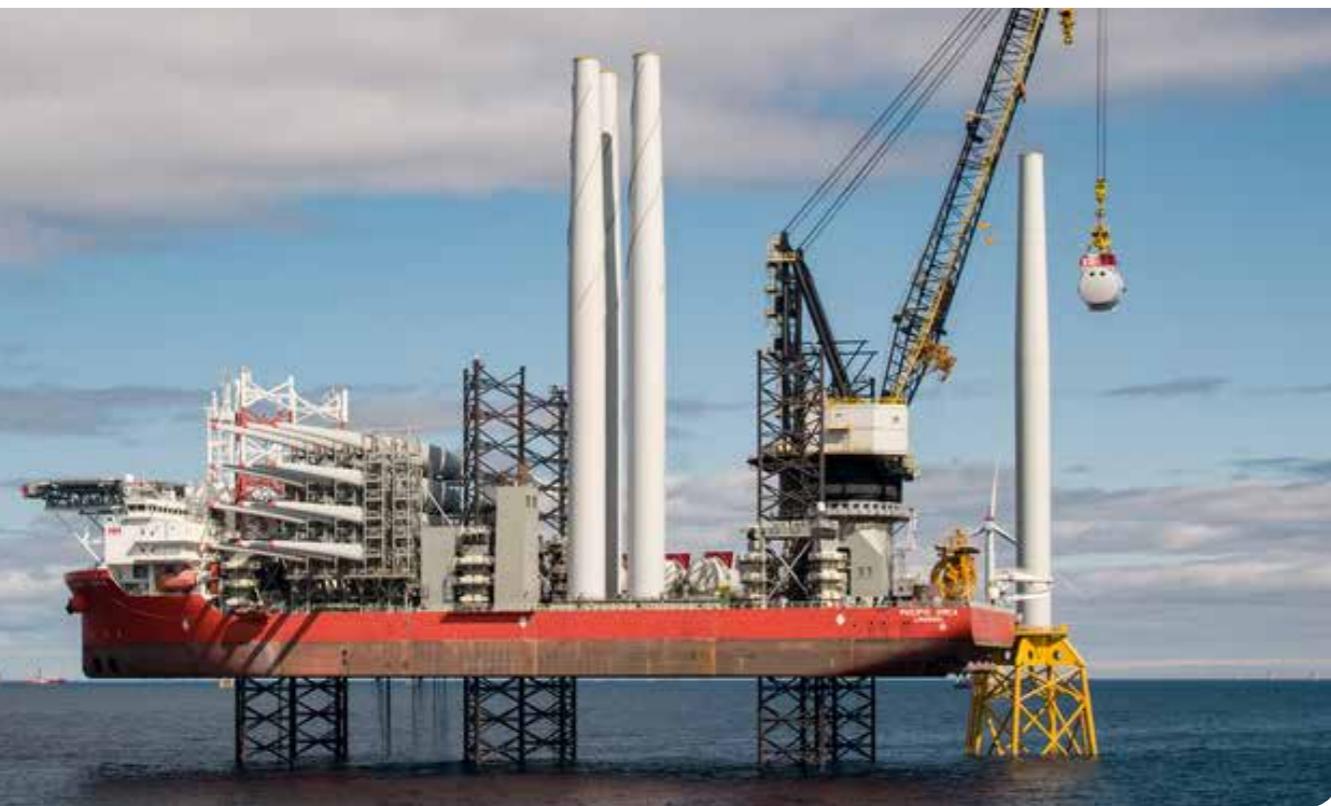
SSE aligns key performance indicators to international non-financial reporting standards and frameworks. This includes individual targets of the UN's SDGs and the Global Reporting Initiative (GRI) framework – see pages 98 to 103. For the first time, this year SSE has also mapped its disclosures to the Sustainability Accounting Standards Board (SASB) Electric utilities and power generators standard on page 106.

#### Engaging with ESG ratings

SSE actively engages with key investor ESG ratings agencies and investor-led initiatives, including: S&P's Corporate Sustainability Assessment (CSA), CDP Climate, CDP Water, the Workforce Disclosure Initiative (WDI), MSCI, Vigeo Eiris, Sustainalytics, Bloomberg Gender-Equality Index and the FTSE4Good Index. For transparency of its performance, detail of these ratings and SSE's performance is provided on page 109 and [sse.com/sustainability](http://sse.com/sustainability).

#### Creating value through partnerships

Working with partners for the benefit of mutually agreed outcomes is an important feature of SSE's approach and ability to achieve its sustainable business goals. Achieving sustainable outcomes and creating value for both shareholders and society requires mature relationships between SSE and its stakeholders. It also benefits from many partnerships, where SSE works with organisations in the pursuit of shared goals. SSE recognises the expertise and the contribution made by the following partners, large and small, in both the short and the long term. Information around some of SSE's key partnerships is disclosed throughout this report and in more detail on [sse.com/sustainability](http://sse.com/sustainability).



### ALIGNING TO THE UN'S SDGS

The UN's 17 Sustainable Development Goals (SDGs) are the core framework that SSE uses to align business and social objectives.

#### A sustainable strategy

The UN's SDGs provide a global blueprint for a sustainable future and all organisations – whether they are governments, businesses or civil society – have a role to play in achieving them. SSE's materiality assessment of the SDGs (see below) enabled it to align its business strategy to the SDGs most material to its business. SSE believes that this approach is good for its business and for society. It enables SSE to find profitable solutions to some of society's greatest challenges.

In early 2019 SSE aligned its business objectives to social objectives, choosing to link four core 2030 business goals to the SDGs. These 2030 targets provide some important interim milestones on the journey to net zero in 2050 and are under constant review to ensure they remain stretching throughout the period.

SSE has aligned a significant proportion of executive remuneration to the achievement of these 2030 Goals. The governance around this is outlined on page 9 and a summary of the way performance was evaluated in 2020/21 is detailed on pages 96 to 97.

#### Identifying material SDGs

SSE has conducted a materiality assessment of its business operations against the individual targets that comprise the 17 SDGs. This has allowed it to identify the SDGs most material to its business and prioritise action against them. Although SSE contributes in varying degrees to the majority of the 17 SDGs, it has identified four as highly material to its business, with a further four assessed as Identifying material issues.

#### Highly material SDGs

SSE defines the below SDGs as 'highly material' to its business and it is these SDGs to which it aligns its strategy and operations. These SDGs are outlined in order of materiality to SSE and detail of where more information can be found is provided.



See pages 18 to 35



See pages 42 to 51



See pages 52 to 65



See pages 70 to 93

#### Material SDGs

The climate crisis is undoubtedly one of the most urgent challenges facing SSE, which is reflected in the identification of the highly material SDGs. In addition, SSE has identified four further material SDGs for its business, shown below, which recognise the wider environmental and social challenges it will face over the coming decade and beyond. While SSE's 2030 Business Goals are not directly aligned to these material SDGs, SSE's Group Environmental Strategy and its Just Transition Strategy are key ways in which it is seeking to address impacts on these SDGs. In particular, SDGs 12, 14, and 15 are the three key environmental SDGs and have been grouped together for the purpose of this report. These SDGs are provided in numerical order with reference to where more information can be found.



See pages 66 to 69



See pages 36 to 41



See pages 36 to 41

# TAKING MEANINGFUL CLIMATE ACTION

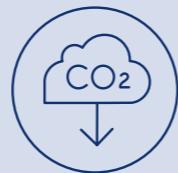
Through delivery of its purpose SSE is directly addressing the pressing issue of the transition to net zero and reflecting society's shifting priorities on climate change.

SSE recognises the serious threat that climate change poses to the natural world and, therefore, to people and the economy. The COP26 climate negotiations in Glasgow later in 2021 aim to drive an accelerated transition to net zero. This presents an opportunity for a green and resilient recovery from the coronavirus pandemic. SSE's strategy is focused on supporting this transition in a way that creates and shares value with shareholders and society.



## Cut carbon intensity by 60%

SSE will reduce the carbon intensity of electricity generated by 60% by 2030, compared to 2018 levels, to around 120gCO<sub>2</sub>/kWh.



With construction under way on three large-scale wind farms and the rationalisation of SSE's higher-carbon activities, SSE's transition to net zero continues apace. 2020/21 was the first year since 2005 that SSE's generation fleet contained no electricity output from coal and SSE's carbon intensity was the lowest since SSE's records began. Nevertheless, more carbon reduction progress is still to be made and SSE is progressing opportunities in developing carbon capture and storage and hydrogen (see page 65). Year-to-year variation in SSE's carbon intensity is to be expected based on external factors, however the long-term trajectory is clear.





## Performance Summary

SDG target	KPI	Unit	2020/21	2019/20
13.1 Climate adaptation	Weather-related resilience expenditure by SSE Distribution:			
	Overhead line replacement and refurbishment <sup>1</sup>	£m	30.7	24.6
	Tree cutting <sup>1</sup>	£m	26.6	29.6
13.2 Integrate national policy	Flood protection <sup>1</sup>	£m	3.3	6.4
	<b>Science based target:</b> scope 1 and 2 emissions	Million tonnes CO <sub>2</sub> e	7.64	8.91
	<b>Science based target:</b> carbon intensity of electricity generation output	gCO <sub>2</sub> e per kWh	255 <sup>(A)</sup>	288 <sup>(B)</sup>
	<b>Science based target:</b> carbon emissions from gas sold (scope 3 carbon emissions)	Million tonnes CO <sub>2</sub> e	2.35	2.68
	<b>Science based target:</b> Proportion of SSE's top 50% of suppliers by spend with Science Based Target <sup>2</sup>	%	29	4
SSE's CDP Climate Change Programme response score		Rating	A-	A-

Detailed disclosure on the breakdown of SSE's scope 1, 2, and 3 emissions is available on page 98.

<sup>1</sup> 2020/21 data may be subject to adjustment before final inclusion in the regulatory reporting pack published to Ofgem in August 2021. Some 2019/20 data has been revised after finalisation of data for the August 2020 Ofgem regulatory reporting pack.

<sup>2</sup> SSE's supplier target is calculated from a 2019/20 baseline.

(A) This data was subject to external independent assurance by PwC in 2021. For the limited assurance opinion see [sse.com/sustainability](http://sse.com/sustainability).

(B) This data was subject to external independent assurance by PwC in 2020. For the limited assurance opinion see [sse.com/sustainability](http://sse.com/sustainability).

## DRIVING CLIMATE ACTION

Growing societal expectations on climate action and a more supportive policy environment allow SSE to take the action needed to support the delivery of net zero.

### A net zero-focussed strategy

Over recent years SSE has rearticulated its strategy which is now wholly focused on developing, building, operating and investing in electricity infrastructure and businesses needed to support the transition to net zero in the countries in which it operates. In 2020/21, the UK Government published its Ten Point Plan and the Energy White Paper, and the Irish Government took steps to put achieving net zero emissions by 2050 into law, with the publication of the Climate Action and Low Carbon Development Bill in March 2021. These developments signal a more supporting policy environment which provides the opportunity for SSE to deliver its strategy and realise the growth opportunities from an accelerated transition to net zero.

In November 2020, SSE announced its own long-term ambition to achieve net zero carbon emissions across all its operations by 2050 at the latest, covering both SSE's direct and indirect emissions, or its scope 1, 2 and 3 GHG emissions. At the same time SSE joined the 'Race to Zero', a global campaign which aims to rally leadership and support from businesses, cities and investors to achieve net zero.

### Strengthening climate governance

Addressing the challenge of climate change is core to SSE's strategy and is therefore at the centre of many Board considerations and decision making throughout the business. SSE has a structure in place to facilitate strong and robust governance of climate-related issues, with accountability ultimately lying with SSE's Chief Executive. More detail of SSE's climate- and sustainability-related governance can be found on page 9 of this report and page 40 of SSE's Annual Report 2021.

SSE took steps to strengthen climate-related governance in 2020/21, which included the Group Risk Committee assuming oversight of SSE's internal TCFD process and disclosures. From 2021/22 governance will be further strengthened, with the Audit Committee of the Board to take oversight of the annual TCFD report and the reform of the Safety Health and Environment Advisory Committee to include sustainability oversight includes a focus on climate adaptation.

In addition, in 2021/22, the Remuneration Committee will undertake a review of its Remuneration Policy with consideration to be taken of potentially embedding sustainability metrics within long-term incentive plans for SSE's Executive Directors.

### Proposed climate resolution

SSE believes that both the company and its investors will benefit from enhanced engagement on climate-related issues. Having worked closely with investor group Climate Action 100+ over 2020/21, SSE is therefore proposing an enabling resolution to its 2021 Annual General Meeting (AGM) that will establish a framework for annual votes on its Net Zero Transition report at future AGMs.

### Advocating for climate action

In May 2020, SSE published 'A greenprint for building a cleaner, more resilient economy' which outlines a set of practical proposals for the UK Government, aimed at helping the economy recover from the coronavirus crisis whilst taking climate action to achieve net zero. This was closely followed by the publication of a similar document for Ireland.

The documents each covered five priority areas, including increasing deployment of offshore wind, decarbonising thermal generation and decarbonising heat and transport. SSE has undertaken extensive advocacy in support of the proposals set out in its greenprint documents over the course of 2020/21, with specific activity including:

- **UK ETS:** SSE welcomed the establishing a UK Emissions Trading System (ETS) in December 2020 and has called upon the UK and the European Union to agree a link between the UK ETS and EU ETS as soon as possible in order to benefit from a wide ranging, liquid and mature carbon market.
- **Addressing barriers to offshore wind connection:** In February 2021, SSEN Transmission, supported by Scottish Renewables, published a paper calling for a review and reform of the current transmission charging methodology to support decarbonisation at the scale and pace required to reach net zero.
- **Making the case for pumped storage:** SSE's proposed 1.5GW Coire Glas pumped hydro storage scheme could provide an invaluable low-carbon resource to help cost effectively manage the fluctuations of the electricity system. SSE has engaged with the UK and Scottish governments on the current policy and market framework which are not yet suitable for attracting investment in such large-scale storage projects.
- **Increasing support for carbon capture and storage (CCS):** SSE has urged the UK Government to increase ambition to multiple power CCS projects by 2025 and 2030. By delivering cutting-edge projects like SSE Thermal's Keadby 3 and Peterhead 2, the UK can accelerate the shift to net zero while maximising the benefits of a green recovery in the UK's industrial heartlands.

### Trade association membership

SSE is a member of four principal trade associations that align with its business objectives and enable it to work collaboratively across the energy sector on matters of shared interest. In its annual CDP Climate Change Programme response, available publicly on its website, SSE reports on its key trade association memberships, their position on climate change and whether that aligns with SSE's position. SSE takes a firm position on climate change and the urgency with which it needs to be addressed, and actively and positively advocates to drive accelerated climate action to achieve net zero.

SSE works closely with the trade associations of which it is a member and engages with them on a continuous basis. As a result, its position on climate change is usually aligned to that of the trade associations. However, for prudence, SSE will undertake a thorough review of its trade association membership over 2021/22 to ensure explicit agreement that their positions on climate change are consistent with its own. Where a trade association may be identified as having a considerably different position on climate change which SSE believes to be detrimental, it will, in the first instance, work with the trade association to try and influence or strengthen their position on the issue. If the outcome of this proves unsatisfactory to SSE, it will end its membership of the particular trade association.





### Taking account of the price of carbon

As a generator of electricity, SSE is subject to national and international policies that impact the price of carbon, which means the price of carbon is an explicit consideration in its investment decisions. SSE's generation assets in the UK operated under the EU Emissions Trading Scheme (EU ETS) until 1 January 2021, when a new UK Emissions Trading Scheme (UK ETS) carbon pricing system came into operation to replace the EU ETS following Brexit. The UK ETS is a cap and trade emissions scheme, similar in design and aims of the EU ETS. SSE's generation assets in Ireland continue to operate under the EU ETS.

In addition to the UK ETS, in GB SSE's activities are subject to the Carbon Price Support mechanism which sets a price per tonne of carbon emitted and, combined with the UK ETS allowance price, makes up the UK Total Carbon Price. The UK Government is committed to carbon pricing as a tool to drive decarbonisation

and intends to set out additional proposals for expanding the UK ETS over the course of 2021.

### Climate adaptation and resilience

The physical impacts of climate change have the potential to impact adversely SSE's operations and interrupt the supply of energy to its customers. For example, in 2021 SSE experienced extreme localised weather conditions including snow and ice events, storms and heatwaves which impacted on its renewable generation output, electricity networks infrastructure and customer demand.

SSE has mitigation methods in place, such as monitoring short- and long-term weather patterns, crisis management and business continuity plans and investment programmes to improve infrastructure resilience.

SSE is currently undertaking a review of climate projections for the next decade, to understand the potential impact on its key assets and infrastructure from higher

temperatures, changing rainfall patterns, and more extreme weather events such as floods, droughts and heat waves. This process supports the UK Government's assessment of critical infrastructure which takes place every five years. SSE's electricity networks and generation businesses have begun reporting progress against the previous assessments completed in 2015 and further work is reassessing the risks and updating mitigation measures where required. The Met Office UK Climate Projection (UKCP18) tool is being used to take account of the climate projections to the end of the century as much of the infrastructure has an operational life expectancy of 30 to 80 years.

### Two weeks and four erratic seasons

SSEN Transmission is experienced at dealing with the impacts of weather on its network, however, in February 2021, its assets were subjected to an unusually high number of diverse extreme weather hazards impacting the network over a ten-day period.

During this period its employees faced challenging work condition faced by weather hazard impacts including: 'line-icing' (significant snowfall freezing and accumulating on overhead power lines, increasing the tension on the conductor causing them to sag and potentially even break) impacting conductors on the network in Argyll; heavy snowfall in the Highlands, with Braemar in Aberdeenshire experiencing the lowest temperature in 26 years, which occurred alongside extremely high flood waters at Coupar Angus substation, risking a widespread interruption to supply which could have impacted thousands of customers. This ten-day series of events was concluded with wildfires on the Western Isles, with both electricity transmission and distribution lines at risk of choking and heat damage on the Isles of Skye and Lewis.

SSEN Transmission has well-established resilience plans and is used to increasing its standby resources for such events and potential damage to its network. However, this period of increased weather-related hazards shows how important it is for SSEN Transmission to continue to review climate-related risks and ensure that the network adapts and is resilient to these changes.



## TARGETING IMPROVED PERFORMANCE

To drive improved performance, SSE measures and reports progress against stretching carbon targets which are science-based and aligned to the ambitions set out in the Paris Agreement.

### Setting science-based carbon targets

In April 2020, SSE set medium-term carbon targets, approved by the Science Based Targets Initiative (SBTi), aligned to the Paris Agreement and a 'well below two-degree' pathway. These targets are aligned to climate science and meet the strict SBTi criteria which requires that they cover scope 1, 2 and 3 emissions. Progress against these four targets is detailed in the pull-out progress summary boxes throughout this section.

In line with the requirements of the SBTi, SSE Group will review its targets in advance of the five-year review period or if there is material change to SSE's business activities that impacts its carbon emissions, or which ever happens first. This review of targets will be completed in accordance with the latest scientific evidence and criteria.

In August 2020, SSEN Transmission had its own series of carbon targets approved by the SBTi, details of which can be found at [ssen-transmission.co.uk](http://ssen-transmission.co.uk). SSEN Distribution also became the first UK

Distribution Network Operator to commit publicly to setting science-based targets, in January 2021. It will announce its science-based targets as part of its upcoming draft business plan for RIIO-ED2 in July 2021.

### SSE's carbon emissions performance

In 2020/21, SSE's total carbon emissions consisted of 64% scope 1 emissions, 5% scope 2 emissions and 31% scope 3 emissions. SSE's total carbon emissions (scope 1, 2 and 3) decreased by around 12% between 2019/20 and 2020/21, from 12.49MtCO<sub>2</sub>e to 11.03MtCO<sub>2</sub>e. While carbon emissions reduced across all three scopes, the most material contributing factor to this decrease was a result of the change in the generation mix of SSE's thermal generation plant, from which carbon emitted contributes 99% of SSE's scope 1 emissions.

Closure of SSE's last remaining coal-fired power station in March 2020, led to a 14% reduction in scope 1 generation emissions in 2020/21, as well as around a 45% reduction in scope 2 emissions relating to

electricity use in power stations.

Between 2019/20 and 2020/21, scope 1 and 2 emission fell by 14%. SSE made good progress towards its SBTi-approved carbon target to cut absolute scope 1 and 2 GHG emissions by 40% by 2030, from a 2017/18 baseline. See progress summary box. More information on SSE's carbon emission performance is provided on page 38 of SSE's Annual report 2021. A detailed discussion of SSE's scope 3 emissions can be found on pages 24 to 25 of this report.

### SCIENCE-BASED CARBON TARGET PROGRESS

Reduce scope 1 and 2 by 40% by 2030, from a 2017/18 baseline
2017/18 baseline: 11.07MtCO <sub>2</sub> e
2020/21 performance: 7.64MtCO <sub>2</sub> e
2029/30 target: 6.64MtCO <sub>2</sub> e
Reduction from baseline: 31%
Percentage of target achieved: 77%

### SSE's carbon intensity performance

The carbon intensity of SSE's generated reduced by 11% to 255gCO<sub>2</sub>e/kWh in comparison to 288gCO<sub>2</sub>e/kWh the previous year, and was the lowest since SSE's records began. The reduction in carbon intensity was largely due to the change in generation output mix, with the closure of SSE's last remaining coal-fired power station in March 2020, meaning 2020/21 was the first year since 2005 that SSE's generation fleet contained no electricity output from coal. This means that SSE is making good progress towards its SBTi-approved carbon target to cut the carbon intensity of electricity generation by 60% by 2030 from a 2017/18 baseline. Year-to-year variation in SSE's carbon intensity is to be expected based on external factors, however the long-term trajectory is clear.

### SCIENCE-BASED CARBON TARGET PROGRESS

Reduce the carbon intensity of electricity generation by 60% by 2030, from 2017/18 baseline
2017/18 baseline: 305gCO <sub>2</sub> e/kWh
2020/21 performance: 255gCO <sub>2</sub> e/kWh
2029/30 target: 122gCO <sub>2</sub> e/kWh
Reduction from baseline: 16%
Percentage of target achieved: 27%



## IMPROVING ACCURACY OF SCOPE 3 EMISSIONS REPORTING

SSE's indirect greenhouse gas emissions are of increasing importance to its stakeholders who seek to understand the risks and opportunities of the emissions associated with a SSE's value chain.

### SSE's scope 3 emissions

Scope 3 emissions are those generated indirectly beyond a company's operations in its value chain, and can include upstream emissions associated with the suppliers and downstream emissions associated with customer use of a company's products. Scope 3 reporting is voluntary, although SSE uses the standardised global framework from the GHG Protocol to guide its disclosures.

The GHG Protocol outlines 15 categories of scope 3 emissions, including purchased goods and services, capital goods, fuel and energy related activities, upstream and downstream transportation and distribution, waste and the use of products sold. The most material categories to SSE are the use of products sold (which for SSE is gas sold to customers) and fuel and energy related activities (emissions relating to the upstream extraction, refining and transport of raw fuels purchased). These emissions combined account for 96% of SSE's current reported scope 3 emissions.

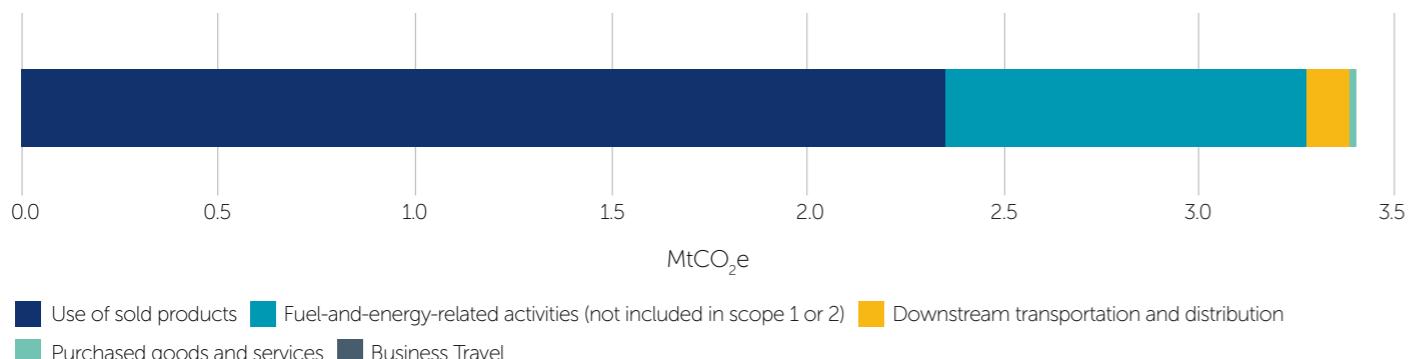
In 2020/21, SSE's total scope 3 emissions fell to 3.39MtCO<sub>2</sub>e from 3.59MtCO<sub>2</sub>e the previous year. This was largely due to a reduction in volumes of gas sold to customers during the year, as a result of weather and the impacts on demand caused by the coronavirus pandemic. SSE's scope 3 emissions for 2020/21 split out by source are detailed below.

### Working to improve scope 3 reporting

The collection of primary emissions data for scope 3 emissions can be a challenge for all companies. Often methodologies rely on low-confidence 'industry average' data. While SSE has good quality data for some of its key scope 3 emission, it faces challenges with other sources of emissions (see page 25 for a case study on supply chain emissions).

SSE regularly reviews its scope 3 categories to identify opportunities to improve both scope 3 emissions coverage and data accuracy. For example, in 2020/21, SSE improved the coverage of its scope 3 reporting with the inclusion of a new emissions source in its data; emissions arising from the fuel purchased by third parties for use in third party vessels that service the offshore wind farms SSE operates.

### SSE's 2020/21 scope 3 emissions by source



### Addressing emissions arising from gas sold to customers

The decarbonisation of heat is a key challenge in the transition to net zero. SSE has set a SBTi-approved target to reduce by 50% the GHG emissions from the products it sells by 2034, from a 2017/18 baseline. Between 2019/20 and 2020/21, the carbon emissions associated with gas sold to customers fell by 12%. A clear pathway for the decarbonisation of heat for both households and business is yet to emerge. However, SSE expects that a combination of solutions will be found including, district heating, some non-fossil fuel gas, fuel switching from gas to electricity and potentially hydrogen generated heat in the longer term. In support of this transition, SSE Business Energy works closely with its customers, offering a range of green gas products with options of green certification and 100% backed by Renewable Gas Guarantees of Origin (RGGOs).

### SCIENCE-BASED CARBON TARGET PROGRESS

Reduce absolute GHG emissions from use of products sold by 50% by 2034 from a 2017/18 base year

2017/18 baseline: 2.54MtCO<sub>2</sub>e

2020/21 performance: 2.35MtCO<sub>2</sub>e

2029/30 target: 1.27MtCO<sub>2</sub>e

Reduction from baseline: 7%

Percentage of target achieved 15%



### ENGAGEMENT IN ACTION



### Working with supply chain partners to understand emissions

To deliver carbon reductions from its scope 3 activity in its supply chain, SSE must work closely with its supply chain partners. One of SSE's SBTi-approved targets is to engage with 50% of suppliers (according to financial expenditure) to set their own science-based targets by 2024. Over 2020/21, SSE held 29 workshops with key suppliers to facilitate dialogue and knowledge-sharing around the setting of science-based carbon targets and the challenges and opportunities presented for various industries. On 31

March 2021, 29% of SSE's suppliers (by value) had set their own science-based targets. Over 2021/22, SSE will also work with CDP Supply Chain to deliver webinars around carbon reporting.

### SCIENCE-BASED CARBON TARGET PROGRESS

Engage with 50% of suppliers by spend to set an SBT by 2024

2019/20 baseline: 4%

2020/21 performance: 29%

2023/24 target: 50%

Percentage of target achieved 54%



### DILEMMA

### THE COMPLEXITY OF ACCURATE SCOPE 3 REPORTING FROM THE SUPPLY CHAIN

Calculating and tracking scope 3 emissions is much more complex than understanding a company's scope 1 and 2 emissions. In its ambition to improve understanding and reporting of its scope 3 emissions, one of the key challenges for SSE is to understand, quantify and then manage the emissions associated with purchased goods and services and the capital goods it buys. This requires collecting reliable and consistent data from third parties, however many methodologies in this area are still being developed and refined.

Three methodologies can be used to calculate scope 3 emission sources: life cycle analysis (the embodied carbon); a supplier's own scope 1 and 2 emissions reporting; and economic assessments. All of these methods have specific challenges in terms of data collection, quality and reliability. SSE has been trialling these different methodologies across

its businesses. For example, SSEN Transmission is reviewing the use of life cycle analysis and embodied carbon in its construction projects to understand how to capture carbon emissions associated with these activities. At a group level SSE has been working with CDP Supply Chain to capture scope 1 and 2 emissions of its top 100 suppliers by spend. Results of these trials are at an early stage.

Scope 3 GHG emission will continue to be a significant contributor to SSE's total carbon emissions and, in time, they may become the most significant source of emissions as SSE's businesses transition towards net zero. This means that SSE must continue to develop a clearer picture of its activities associated with its material scope 3 emissions so it can collaborate with its suppliers to reduce these emissions to net zero too.



# CLIMATE-RELATED FINANCIAL DISCLOSURE

SSE must articulate its climate-related risks and opportunities, alongside how it is managing them, so its stakeholders can make informed judgements on its resilience to climate change.

## SSE'S TCFD JOURNEY

### From voluntary disclosures to mandated

This report represents SSE's fourth set of disclosures aligned to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Disclosures to date have been undertaken on a voluntary basis, however, in November 2020 the Chancellor announced that the UK would be the first country in the world to make TCFD-aligned disclosures mandatory. This means that from the next financial year (2021/22) SSE will be obliged to include a statement in its annual financial report which sets out its disclosures against the TCFD recommendations.

### Meeting the TCFD recommendations

Stakeholders interested in understanding the totality of SSE's approach to climate-related risks and opportunities should also reference pages 40 and 41 in the Annual Report, where a summary table describes, in short, the approach to the four TCFD pillars: Governance; Strategy; Risk management; and, Metrics and targets. The Governance section of this report on pages 8 and 9 describes the structured governance pathways for climate issues

and the following pages outline in detail the process and outcome of identifying and quantifying SSE's most material climate-related risks and opportunities.

While the combination of disclosures in this report and the Annual Report meets the spirit of the TCFD recommendations it is recognised that there is room for ongoing development and increasing maturity of climate-related financial disclosure in a way that aids stakeholder and shareholder comprehension. SSE, therefore, welcomes feedback on the quality and quantity of its climate-related disclosure.



### SSE's long-term commitment to climate disclosures

SSE has participated in CDP's Climate Change Programme since 2004 and has reported data on the carbon intensity of its electricity generation since 2006 in its Annual Report. It has provided detailed Greenhouse Gas emission disclosures in its Annual Report since 2013, in line with

the requirements introduced through the Companies' Act 2006.

Since late-2017, when SSE's Finance Director gave a commitment to meet the recommendations of the TCFD, SSE efforts have focussed on:

- enhancement of the governance and management of climate-related issues;
- the identification and quantification of its significant climate-related risks and opportunities; and,
- The development of its own scenario analysis to assess the impact of climate-related risks and opportunities on its businesses.

In its latest report to CDP's Climate Change Programme, which is aligned to the TCFD recommendations, SSE was awarded an 'A-' for its response to the 2020 Programme.



### Continuing the journey: TCFD progress in 2020/21



## SSE'S APPROACH TO CLIMATE-RELATED DISCLOSURES

### Assessing climate-related risks and opportunities

The management of climate-related risks and opportunities is integrated into SSE's Group Risk Management framework and complemented by a specialist TCFD climate-related risk assessment process. The assessment process identifies material risks or opportunities over the short (up to three years), medium (four to 10 years) and long term (up to 30 years). These processes and outputs are governed by the Risk Committee.

### Improving engagement

Recognising that 2020/21 was the final year of voluntary disclosure, The aim of the risk assessment process was to establish increased rigor into the identification and articulation of SSE's climate-related risks and opportunities. To do this, a broad review of current climate-related risks and opportunities was completed which used a series of interviews with senior business leaders to test the relevance, materiality and financial impacts of SSE's climate-related risks and opportunities. This process identified a long list of climate-related risks and opportunities.

Alongside the senior manager interviews, a series of workshops were run at a business unit level to test the physical risks of climate change using instructive climate-impacted long-range weather forecasts and a more scientific approach to the nature of climate hazards.

### Determining relevance and materiality

To test the relevance of the long list of

climate-related risks and opportunities a standard set of criteria was used, involving:

- reviewing key climate-related trends in the external environment;
- key stakeholder perspectives;
- internal climate-related business unit risk assessment outputs;
- as well as climate-related influencing factors in the Group Risk Management framework.

To identify those risks and opportunities that are material to SSE, a significance test was conducted. To do this, the potential financial impact and the likelihood of occurrence for each risk and opportunity was assessed using the following methodology:

- Climate-related risks involve modelling the financial impact of the risk (i.e. reduced revenue or increased costs) over the identified timeframe that the risk is perceived to impact the business.
- Climate-related opportunities, the potential financial benefits (i.e. increased operating profit or revenue) are identified over the timeframe that the opportunity is perceived.
- Likelihood: the frequency, and impact of that occurrence is assessed for both climate-related risks and opportunities.

Where relevant, risks and opportunities are assessed against different outcomes as determined by relevant scenarios. This assessment led to the definition of the final list of material climate-related risks and opportunity for SSE.

The potential financial impacts are high-level scenarios and are likely to change and evolve as methods mature.

To support this process, a risk rating matrix provides the framework to rank each risk and opportunity by likelihood of impact and significance of potential financial impact. This helps to identify the importance of each material risk or opportunity to the business.



**"High quality financial disclosures relating to climate risk and opportunity support both company decision-making and stable financial markets in the long run."**

**Gregor Alexander,**  
Finance Director



### Defining climate-related risks and opportunities

Climate-related risks and opportunities can arise from either:

- Physical impacts:** such as increased severity of extreme weather events (acute) such as cyclones, droughts, floods, fires or a longer-term shift in weather patterns (chronic) such as change in precipitation and temperature patterns;
- Transitional impacts:** associated with the transition to a low-carbon economy, for instance from changes to policy and legal actions,

technology, market and reputational concerns.

SSE's climate-related risks arise from both physical and transitional impacts. SSE's key climate-related opportunities arise from the transition to a low-carbon economy, which requires the development of renewable and low carbon generation and investment in electricity networks.

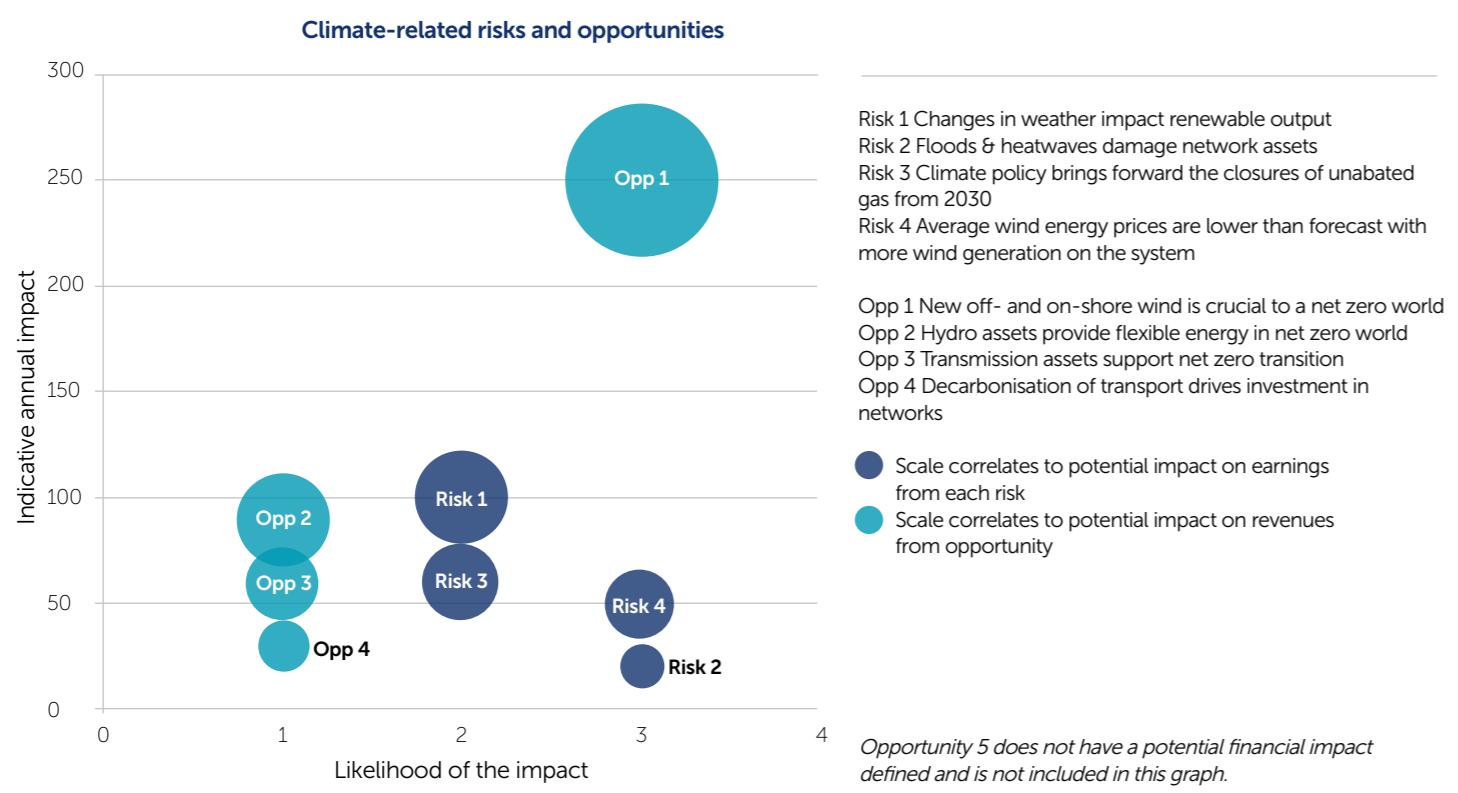
#### Risk and opportunity assessment

The output, which is summarised in the table below, of this climate-related risk and opportunity assessment process is:

- the identification of material climate-related physical and transition risks and opportunities;
- a description of the potential impact to the business;
- the calculation of the potential financial impact of each to the business; and
- a rating of the impact to the business.

For each risk and opportunity there is a description of whether there has been a substantial change or update since the previous risk assessment was completed.

Rating	Low	Medium	High
Likelihood	<b>Physical:</b> Low – less than 1 in 10 year event <b>Transition:</b> Low – Exceptionally unlikely to unlikely	<b>Physical:</b> Medium - 1 in 5 year event <b>Transition:</b> Medium – about as likely as not or more than likely than not to occur	<b>Physical:</b> High – 1 in 3 year event <b>Transition:</b> High – very likely to virtually certain to occur
	<b>Earnings:</b> Low (<£50m earnings annually) <b>Revenue:</b> Low (<£100m revenue annually)	<b>Earnings:</b> Medium (>£50m <£100m earnings annually) <b>Revenue:</b> Medium (>£100m <£250m revenue annually)	<b>Earnings:</b> High (>£100m earnings annually) <b>Revenue:</b> High (>£250m revenue annually)



Title	Type of risk/opportunity	Description	Significance/liability	Change from 2019/20 disclosure
<b>RISKS:</b>				
<b>Risk 1 Changes in weather impacts renewable output.</b>	Physical risks	Chronic: Changes in precipitation patterns and extreme variability in weather patterns	High	No change
<b>Risk 2 Floods and heatwaves damage network assets.</b>	Transition Risks	Acute: Increased severity of extreme weather events such as cyclones and floods	Medium	Minor change to the financial impacts to reflect business plans
<b>Risk 3 Climate policy brings forward the closures of unabated gas from 2030.</b>	Policy and Legal: Mandates on and regulation of existing products and services	Medium	Financial impact updated to reflect changes to thermal generation's expected output.	
<b>Risk 4 Average wind energy prices are lower than forecast with more wind generation on the system.</b>	Market and Policy: Uncertainty in market and policy signals	High	New risk identified on the basis of materiality.	
<b>OPPORTUNITIES:</b>				
<b>Opp 1 New off- and on-shore wind is crucial to a net zero world.</b>	Transition opportunities (products and services to support a net zero electricity system)	Development of on- and off-shore wind to support low-carbon electricity system	High	Potential financial impact now disclosed as a result of policy progress.
<b>Opp 2 Hydro assets provide flexible and renewable energy in a net zero world.</b>	Investment in flexible and renewable hydro electricity generation	Medium	Greater significance as a result of policy progress	
<b>Opp 3 Transmission infrastructure to support the net zero transition.</b>	Development of additional transmission infrastructure to support the delivery renewables generation	Medium	Change in the potential financial impact to reflect RIIO-T2 'Certain View' and 'Uncertain View' of opportunities	
<b>Opp 4 Decarbonisation of transport drives investment in distribution network.</b>	Development of network infrastructure to support low emissions transport products	Medium	No change	
<b>Opp 5 Low carbon flexible thermal is essential to the net zero transition</b>	Development of low-carbon and/or alternative thermal generation assets	Medium	New significant opportunity that arises as a result of decarbonising the electricity system and the requirement to support security of supply with flexible low carbon thermal generation assets in the medium term.	



## SSE'S CLIMATE-RELATED RISKS AND OPPORTUNITIES

The following report represents the third time SSE has published a quantification of the potential financial impact of its material climate-related risks and opportunities in its Sustainability Report. The following disclosure (pages 30 to 35) updates the assessment of climate-related risks and opportunities outlined in previous years. SSE will also provide more detail to these disclosures in its 2021 CDP Climate Change Programme submission.

### PHYSICAL RISKS:

#### Risk 1 Changes in weather impacts renewable output.

Physical risk factors that impact SSE's Renewables businesses:	Potential financial impact of the physical risk of climate change to SSE's business:
<b>The Chronic Physical Risk:</b> Longer term changes in climate patterns cause sustained higher temperatures that may result in lower rainfall and reduced wind levels. These changes may impact SSE's renewable output and associated earnings.	<b>Potential financial Impact</b> <b>Around £100m potential adverse impact on one year of earnings.</b>
Weather variability is a perennial feature of risk for SSE as the largest generator of renewable electricity in UK and Ireland.	Based on SSE's long-term monitoring of weather changes and current forecasts, a plausible scenario has been established of significantly below-average rainfall and of low wind combined. The combination of these weather impacts may result in reduced renewable generation output and associated earnings. <b>Weather patterns affect renewable output and in any one year the potential adverse financial impact on renewable earnings is estimated to be around £100m.</b>
<b>SSE's mitigating actions:</b> While the opportunity to mitigate against year-to-year weather variability is limited, there is both geographical and technological diversity amongst SSE's renewable portfolio providing a natural hedge to changing weather patterns within and between years. Crisis management and business continuity plans in place to deal with severe weather events that can damage energy assets.	

#### Risk 2 Floods and heatwaves damage network assets.

Physical risk factors that impact SSE's electricity distribution networks:	Potential financial impact of the physical risk of climate change to SSE's business:
<b>The Acute Physical Risk:</b> Increased severity of extreme weather events, such as storms, floods and heat waves bring prolonged extreme temperatures, wind or rainfall.	<b>Potential financial Impact</b> <b>Between £120m - £220m potential adverse impact on earnings cumulatively over 10 years</b>
This may damage network assets resulting in loss of incentive revenue and increased maintenance for SSEN Distribution.	To estimate a potential financial impact of this risk, it is assumed that the next distribution price control (2023 to 2028) will be of similar value and size as the current RIIO-ED1 distribution price control (2015 to 2023). To calculate the financial impact two decade-long weather scenarios have been considered: <ul style="list-style-type: none"> <li>The first scenario is a simple consistent assessment where there is an additional 10% fault cost incurred each year for the next 10 years and this would have a corresponding 10% impact on incentive revenue each year in the same period.</li> <li>The second scenario takes account of weather modelling which suggests that the weather changes will not be consistent and that in the first part of the decade fault costs will increase by 10% with a corresponding 10% decrease in annual incentive revenue in three of the five years between 2021 and 2026. Whilst in the second part of the decade (between 2026 and 2031) the impact of weather will be greater in magnitude and fault costs will increase by 20% with an 20% annual incentive revenue reduction in two of the five years.</li> </ul> These calculations are consistent with the number of faults and current RIIO-ED1 incentive and penalty methodology.
	<b>The estimated cost of faults and loss of incentive income over the next 10 years may result in a potential reduction of earnings of between £120m and £220m cumulatively.</b>
<b>SSE's mitigating actions:</b> To mitigate these impacts SSE monitors short- and long-term weather conditions; has crisis management and business continuity plans; and has a continuous programme of investment in strengthening and improving the resilience of the electricity network.	

### TRANSITION RISKS:

#### Risk 3 Climate policy brings forward the closures of unabated gas from 2030.

Transition risk factors that impact SSE's Thermal business:	Potential financial impact of the physical risk of climate change to SSE's business:
<b>Policy and Legal risk:</b> More aggressive climate change policy brings forward the closure of unabated gas generation from 2030. The net zero transition requires a significant increase in renewable generation. Flexible generation is required to provide electricity when renewable output is low. In the medium-term gas generation is likely to play a key strategic role in balancing the variability of renewables, albeit with shorter running regimes, until sufficient net zero alternatives are deployed. While the 'Balanced Net Zero Pathway' scenario in the Climate Change Committee's 6th Carbon Budget, suggests the phasing out of unabated gas generation by 2035, it is plausible that to meet climate change commitments the UK Government (and potentially the Irish Government too) may strengthen climate change policies to require unabated gas generation to cease from 2030.	<b>Potential financial Impact</b> <b>Up to £300m potential adverse impact on earnings cumulatively over five years from 2030</b> SSE's existing 5.3GW fleet of installed gas- and oil-fired generation will be nearing the end of its expected life by the end of the 2020s. However, 2.1GW of Combined Cycle Gas Turbine (CCGT) capacity will still be in operation in 2030. It is a plausible scenario that this capacity will not be able to generate beyond 2030 without low-carbon abatement technology. It is therefore assumed that the financial impact of this policy change is a loss of five years of earnings for the remaining life of these assets.

SSE's mitigating actions:
<ul style="list-style-type: none"> <li>SSE is investing in a diversified generation portfolio of renewable and thermal low-carbon assets to transition to net zero and accelerate the decarbonisation of some of the UK's most carbon intensive regions.</li> <li>SSE Thermal has an agreement with Equinor to co-develop low-carbon thermal options at its Keadby site, in North Lincolnshire, and at its Peterhead site, in Aberdeenshire.</li> <li>Keadby 2, SSE Thermal's £350m 893MW CCGT brings Siemens' first-of-a-kind, high efficiency, gas-fired generation technology to the UK and is on track to be fully commissioned in 2022. As part of the co-operation agreement with Equinor, SSE Thermal is also developing options to blend hydrogen at Keadby 2.</li> <li>SSE engages with UK and Irish Governments, European Commission, Members of European Parliament and others on low-carbon policy frameworks to support the delivery of, and create routes to market for CCS and hydrogen technologies.</li> <li>The cost associated with decommissioning is factored into the end-of-life plans for ageing plant.</li> </ul>

#### Risk 4 Average wind energy prices are lower than forecast with more wind generation on the system.

Transition risk factors that impact SSE's Renewables businesses:	Potential financial impact of the physical risk of climate change to SSE's business:
<b>Market and policy risk:</b> In net zero consistent scenarios, the average wholesale power price which wind energy is able to capture is forecast to reduce as a result of more zero marginal cost wind generation coming on to the electricity system.	<b>Potential financial Impact</b> <b>For every £5/MWh reduction on power prices due to wind capture price effect, it is estimated that the negative impact on SSE's earnings in 2029/30 would be around £50m.</b> The effect of a wind capture price only materially impacts wind generation that is fully exposed to market prices (or 'merchant' wind output), as it is not supported by government-backed fixed price mechanisms such as the Contracts for Difference.
	All credible pathways to net zero in the UK and beyond assume the dramatic scaling up of wind (especially offshore) generated electricity. This significant growth in wind power output without a corresponding increase in demand represents a potential climate-related transition risk. As wind generation capacity increases, both the market and SSE expect the average electricity price which wind power receives ('wind capture price') to be less than the average price for electricity ('baseload price'). As wind becomes the dominant source of electricity output it will define the market price, so the volatility of electricity prices correlate to wind output, both high and low. While this is expected in the medium term, and is factored into investment decisions, there is a risk that this lower average price for wind output is more extreme than what the market (or SSE) expects. In the longer term, and with careful market design reform, the effect of the wind capture price will stabilise as more low carbon technologies adapt their patterns of demand according to the price signal sent by the market.

SSE's mitigating actions:
<ul style="list-style-type: none"> <li>SSE continues to invest in a geographically and technologically diverse generation portfolio of renewable and low carbon thermal assets, in order to balance the effect of price volatility.</li> <li>SSE's renewables portfolio has a diversity of remuneration streams, with semi-regulated revenues, which reduces its exposure to market risk.</li> <li>SSE will seek, where appropriate, to submit certain development projects into CfD auctions, thereby removing merchant risk.</li> <li>With its integrated customer facing business, SSE will work with large customers wishing to purchase renewable energy, to provide long term power contacts, called power purchase agreements (PPAs).</li> <li>SSE undertakes scenario sensitivity analysis that factors the impact of variable market prices into its long-term forecasting and modelling for any prospective new wind asset.</li> <li>SSE engages with UK and Irish Governments, European Commission, Members of European Parliament and others on policies that support the reduction of risk in low carbon electricity and, therefore supports lower-cost renewable energy production.</li> </ul>

## OPPORTUNITIES:

### Opp 1 New off- and on-shore wind is crucial to a net zero world.

Opportunity described for SSE Renewables:	Potential financial impact of the climate-related opportunity to SSE's business:
Products and Services:	Potential financial Impact
<b>The commercial development of SSE's off- and on-shore wind pipeline, beyond those currently in construction or those due for imminent final investment decision.</b>	<b>Additional revenue of up to £3.75bn cumulatively between 2025 and 2030.</b>
In a low-carbon world, new off- and on-shore wind has a crucial role to play. The UK Government has committed to an additional 40GW of installed offshore wind capacity by end of 2030 and the Climate Change Committee sees at least 75GW by 2050. In Ireland a further 5GW offshore wind target by 2030 has been set. The continued access to Contracts for Difference (CfD) or other price stabilisation mechanism would continue to support an investment case for SSE in off- and on-shore wind projects.	SSE has an off- and on-shore wind development pipeline at varying stages of development, with a clear aspiration to reach a run rate of at least 1GW of new assets a year during the second half of this decade. As a result, SSE now expects to exceed its target for trebling its renewable output by 2030.  The opportunities that exist include consented as well as pipeline development projects. Growth opportunities come from consented offshore projects which could be operational by 2025/26 involving: Seagreen 1A (360MW, 49% share) and Arklow Bank (520MW). SSE has future onshore growth through consented sites at Strathy South (208MW) and Tangy repower (57MW) in Scotland and Yellow River (105MW) in Ireland.  Further development projects involve: Berwick Bank and Marr Bank offshore wind farms located off the Firth of Forth (up to 4,150MW); North Falls offshore wind farm an extension to Greater Gabbard wind farm off the east coast of England (up to 504MW 50% share)); and in Ireland 800MW Braymore Point and 800MW Celtic Sea offshore wind projects.  Future onshore growth can come from yet to be consented sites and further prospects. This takes the total GB and Ireland onshore wind pipeline to over 1100MW.  <b>Assuming potential £250m of additional revenue for every 1GW of extra wind capacity then the cumulative impact on revenue between 2025 to 2030 is around £3.75bn.</b>

#### SSE's actions to realise the opportunity:

- SSE is establishing itself as a leading developer, currently leading construction of more offshore wind capacity than any other company globally including: Dogger Bank A and B (each 1,200MW, 40% share); Seagreen 1 (1,075MW, SSE share 49%); Viking (443MW) all in Scotland; and in Ireland Lenalea (30MW, SSE 50% share).
- SSE constructively engages with UK and Irish Governments, European Commission, Members of European Parliament and others on the establishment of policy frameworks that support the ongoing expansion of renewable electricity.

### Opp 2 Hydro assets provide flexible and renewable energy in a net zero world.

Opportunity described for SSE Renewables (hydro):	Potential financial impact of the climate-related opportunity to SSE's business:
Products and Services:	Potential financial Impact
<b>Decarbonisation of the electricity system provides the opportunity to increase output and earnings from flexible hydro generation and pumped storage.</b>	<b>Up to £900m potential additional revenue cumulatively over 10 years.</b>
As the energy system decarbonises, increasing volumes of wind energy is coming onto the GB system.  Flexible generation and storage are required to provide electricity when wind output is low. SSE's hydro generation assets (inc. pumped storage) are in a good position to take advantage of an increase in value of flexible output. In addition, has further options through investment in flexible pumped and battery storage technologies.	SSE has 1,459 MW of existing hydro capacity (inc. pumped storage) and has planning consent for an additional 1.5GW of pumped storage at Coire Glas.  SSE continues to invest in its hydro generation assets to increase flexibility to the UK grid. It is assumed that by providing more flexible hydro output from existing assets SSE could generate additional income through generating additional volumes and/or capturing high prices during system stress periods. In addition, balancing market and ancillary services revenues could generate further income. These values will vary depending on market conditions.  Furthermore, the successful development of the consented Coire Glas Pumped Storage plant could potentially earn additional revenue from 2028/29 onwards.  <b>Cumulative revenues of up to £900m could be earned by continuing to provide flexible hydro output and investing in new pumped storage output over the next 10 years.</b>

#### SSE's actions to realise the opportunity:

- SSE has a consent for the development of 1.5GW (30GWh) Coire Glas scheme. SSE sees this has having an important role in providing critical flexibility to balance the increasing volumes of variable renewables. SSE is working closely with policy makers to encourage further clarity on the policy framework and route to market for such projects, and details on this are expected from BEIS and Ofgem later this year.
- In recent years hydro-electric generation has demonstrated its capability in delivering substantial value through flexible operation enabled by enhancements to SSE's commercial management of these assets. These assets will continue to play an important role in providing low-carbon flexibility required for the net zero transition.

### Opp 3 Transmission infrastructure to support the net zero transition.

Opportunity described for SSE's electricity transmission network:	Potential financial impact of the climate-related opportunity to SSE's business:
Products and Services:	Potential financial Impact
<b>Development of additional transmission infrastructure in the north of Scotland to support the delivery of an accelerated net zero electricity system.</b>	<b>Additional increase in revenue as a result of the significant capital investment in additional projects over the RIIO-T2 price control (2022 to 2026) period would amount to around £100m - £150m.</b>
The UK Government's Climate Change Act 2008, its Clean Growth Strategy (published 2017), and its Industrial Strategy, describe the mechanisms for the UK to transition to a low-carbon economy. These policies have led to an increase in renewable generation contributing to the GB electricity network.  With the UK Government's net zero legislation and interim 2035 climate target, that are in line with the Committee on Climate Change report on Net Zero, an accelerated path towards further decarbonisation is plausible. SSEN Transmission network plays a key role connecting the sources of renewable generation to the areas of high demand.	SSEN Transmission's business plan between 2021 to 2026 contains a total expenditure plan of £2.8bn (including the Shetland HVDC link).  There are further key development opportunities that are emerging in relation to additional transmission infrastructure beyond the 'Certain View' investments in the RIIO T2 investment plan to further support the net zero transition. Subject to the outcome of needs assessments to be submitted to Ofgem, including further network investment in Argyll, Skye and the East Coast HVDC from Peterhead. The combined investment of these projects is well in excess of £1bn. These projects could see the total installed generation capacity in the north of Scotland increase to around 14GW by the end of RIIO-T2, with almost 13GW of this from renewable sources.  <b>The revenue increase as a result of the significant capital investment in additional projects over the RIIO-T2 price control (2022 to 2026) period would amount to around £100m - £150m.</b>

#### SSE's actions to realise the opportunity:

- Uncertainty Mechanisms have been agreed with Ofgem under the RIIO T2 settlement that provide a framework from which investment projects, not included within the 'Certain View' business plan, can be agreed.
- In 2021/22, SSEN Transmission will submit initial needs cases to Ofgem for the Argyll and Skye network improvements and a final needs case for the East Coast HVDC project.

## OPPORTUNITIES CONTINUED:

### Opp 4 Decarbonisation of transport drives investment in distribution network.

Opportunity described for SSE's electricity distribution networks:	Potential financial impact of the climate-related opportunity to SSE's business:
Products and Services:	Potential financial Impact
<b>Decarbonisation of transport presents opportunities for SSE's Network's business.</b>	<b>Between £200m to £400m cumulative revenue from investment to support electrification of transport to 2030.</b>
The UK Government's Ten Point plan for a Green Industrial Revolution accelerates the shift to zero emission vehicles, with the ban on the sale of new petrol and diesel cars and vans by 2030. National Grid's Future Energy Scenarios expects electric vehicles to grow in GB to around 10 million by 2030.	The uptake of EVs on SSE's networks is likely to provide a significant investment opportunity to support the low carbon transport transition. Updated Distribution Future Energy Scenario reports were published in December 2020. In SSEN's distribution areas alone the number of EVs will increase from 30,000 in 2020 to over 5 million in 2050, with heat pumps rising from 32,000 to 2.5m and local renewable capacity from 5GW to 18GW in the same periods.  Studies forecast that EVs will contribute to between £400m to £1bn of capital investment by 2030 for SSE in its network areas. To calculate the revenue impact of rapid electrification of vehicles, SSE has profiled the investment predictions of a fast and average uptake over the period up to 2030.  <b>Between £200m and £400m potential increase in cumulative revenue from investment in networks to support electrification of transport up to 2030.</b>

#### SSE's actions to realise the opportunity:

- SSEN is taking a leadership role on electrification and has a 2030 target to 'build network flexibility that helps accommodate 10 million electric vehicles in the UK', and during 2020/21, SSEN invested a total of £350m in electricity distribution networks.
- Major innovation projects have included: Project LEO, which over 2020/21 continued to test demand and generation matching, flexibility and balancing across the Oxford region; Optimise Prime, a fleet electrification project which has moved into physical trials; and Skyline, a first-of-its-kind project launched in 2020/21, which will establish data sharing with the automotive and charge point industries to allow early visibility of planned domestic EV charger connections. SSEN Distribution is also a core member of the Scottish Government's Strategic EV Partnership
- SSE is also a member of the Climate Group's global EV100 initiative and pledged to switch its 3,500 strong vehicle fleet to electric by 2030 and install charging points for its 21,000 employees to use.

### Opp 5 Low carbon flexible thermal is essential to the net zero transition.

Opportunity described for SSE Thermal:	Potential financial impact of the climate-related opportunity to SSE's business:
Products and Services:	Potential financial Impact
<b>Decarbonisation of the electricity system to net zero provides the opportunity to increase output and earnings from flexible low carbon thermal generation.</b>	<b>Highly significant opportunity for additional growth.</b>
As the energy system decarbonises, increasing volumes of wind energy is coming onto the GB system. Flexible generation is required to provide electricity when the wind and hydro output is low.  The CCC outlines in its 6th Carbon Budget advice to Government, that carbon capture and storage (CCS) as well as hydrogen is essential to support the low carbon transition, with at least one scheme required delivered by 2026. In November 2020, the UK Government announced its 10 point plan for a Green Industrial Revolution with CCS and hydrogen playing an important role, with a £1bn fund to facilitate CCS deployment in two industrial clusters by the mid-2020s and a further two by 2030 as well as a Net Zero Hydrogen Fund providing £240m up to 2024/25.	SSE is developing plans with partners to support the UK's transition to net zero and accelerate the decarbonisation of some of the UK's most carbon intensive regions. SSE Thermal's focus is on CCS and hydrogen.  The successful potential development of: Keadby CCS a 900MW power station fuelled by natural gas and fitted with carbon capture technology to remove carbon emissions may be operational by 2027; Keadby Hydrogen with a peak demand of 1.8GW powered by 100% hydrogen could be developed by 2030 and Peterhead CCS could potentially be available by the end of the decade. The combination of these three low carbon flexible thermal assets could generate significant additional revenue depending on market conditions. While SSE considers flexible low carbon thermal generation to be a significant future opportunity it is not able to calculate future potential revenue with confidence yet.  <b>The potential financial impact of this climate-related opportunity is significant to SSE in both the short- and medium-term.</b>

#### SSE's actions to realise the opportunity:

- SSE is investing in a diversified generation portfolio of renewable and thermal low-carbon assets to transition to net zero and accelerate the decarbonisation of some of the UK's most carbon intensive regions.
- SSE engages with UK and Irish Governments, European Commission, Members of European Parliament and others on low-carbon policy frameworks to support the delivery of, and create routes to market for CCS and hydrogen technologies
- SSE and its partner Equinor will develop two low-carbon thermal options in North Lincolnshire and Aberdeen including: Keadby CCS – a 900MW gas-fired power station with carbon capture technology; Peterhead CCS – a 900MW gas-fired power station with carbon capture; and a 900MW low-carbon hydrogen-fired power station with a peak demand of 1800MW, this could be the world's first major hydrogen-fired power station.





# PROTECTING THE NATURAL ENVIRONMENT

SSE operates in some of the UK and Ireland's most remote areas which are home to a wide variety of valuable ecosystems and habitats. SSE has identified SDG 12 Responsible consumption and production, SDG 14 Life below water, and SDG 15 Life on land as material to its business.

## CAREFULLY MANAGING ENVIRONMENTAL IMPACTS

SSE has robust environmental governance and policies in place, and works constructively with stakeholders to produce sustainable environmental outcomes.

### Environmental Strategy

While the greatest threat to nature is from climate change, ecosystems and biodiversity are affected by human behaviour in other ways too. Over-use of resources, land encroachment and pollution are combining with climate change to create a natural environment emergency that is described as profound to human life as global warming.

SSE's environmental strategy seeks to protect the environment in which it operates and, where possible, it seeks to enhance and restore it too. Its strategy has three priority elements: climate change (including both mitigation and adaptation measures); resource and consumption; and nature. Underpinning that strategy is an environmental management system supported by governance at both the Executive and Board level, the Safety Health and Environment Committee and the Safety, Health and Advisory Committee, respectively.

### Effective environmental management

To ensure effective environmental management, SSE implements an environmental management system (EMS) across all its business activities that interact with the environment: thermal and renewable generation; enterprise contracting and distributed

energy; electricity transmission and distribution; and, gas storage. SSE is certified to ISO14001:2015 for all of these activities, except electricity distribution and SSE's Distributed Energy business which are covered by SSE's internal audit programme. This means SSE is ISO14001 certified for around 51% of its business activities that interact with the environment by reported revenue (based on 2020/21 figures)<sup>1</sup>. SSE's ISO14001 certificates are available at [sse.com/sustainability](https://sse.com/sustainability).

ISO14001:2015 is an international standard designed to ensure that appropriate policies, processes, and outputs are in place to ensure a business recognises and effectively manages the most significant environmental issues and impacts and is based on the principles of continuous improvement. To be certified to ISO14001 businesses must have appropriate policies and procedures in place and this must be externally audited to achieve the standard. In addition to this, SSE undertakes regular internal safety, health and environment audits of sites to ensure standards are being met.

### Monitoring environmental performance

In 2020/21, the number of environmental permit breaches as a result of SSE's activities totaled 4 compared to 10

incidents the previous year. In the same period, SSE's total number of environmental incidents (major, serious and minor) fell to 45 from 53 the previous year. Over 2020/21 there were no major environmental incidents. A break down of environmental incidents by severity category can be found on page 98.

SSEN Transmission and SSEN Distribution are required to submit environmental disclosures to the energy regulator, Ofgem, on an annual basis to monitor performance and drive improvements. In November 2020, SSEN Transmission



<sup>1</sup> The percentage of SSE's relevant business units that interact with the environment that are certified to ISO14001, by reported revenue. The relevant business units are: SSEN Transmission, SSEN Distribution, SSE Renewables, SSE Thermal (generation and gas storage) and SSE Enterprise. See page 190 of SSE's Annual Report 2021 for more information.



## PROTECTING THE NATURAL ENVIRONMENT

was awarded Leadership (97%) for its Environmental Discretionary Reward (EDR) submission, achieving its highest score to date. SSEN Transmission is the first Transmission Operator to achieve EDR Leadership status for three consecutive years.

### Protecting and enhancing biodiversity

SSE works to actively manage its environmental footprint and takes careful consideration of biodiversity in its activities to ensure that it maximises positive and minimises negative impacts.

In support of this, in the first instance, SSE is targeting overall 'no net biodiversity

loss' on new infrastructure projects gaining consent in 2020 onwards for Transmission and 2023 for Renewables. From 2025 both Transmission and Renewables will deliver 'Biodiversity Net Gain' for each major development project they deliver.

While 2020 was dominated by the coronavirus, 2021 has the potential to be a turning point in the response to the nature emergency and there are calls for radical changes to how nature is valued. SSE's Biodiversity Report 2020 highlights the work SSE has undertaken in calendar year 2020 to protect and enhance biodiversity, contribute to biodiversity

research and knowledge, and connect people with the natural world.

Highlights include: SSEN Transmission's progress with its award-winning Biodiversity Net Gain (BNG) approach; SSE Renewables' innovative partnership with Microsoft to improve species monitoring using artificial intelligence; and, SSE Thermal's ecological management works as part of the decommissioning of its last coal-fired power station. SSE's Biodiversity Report is available at [sse.com/sustainability](https://sse.com/sustainability).



### The species-counting frontier: AI and puffins

A partnership between SSE and Microsoft designed to bring about digital and technological innovation, has implemented a ground-breaking species monitoring technique on the Isle of May in the Firth of Forth. As part of a planning condition for its Beatrice offshore wind farm, SSE is required to monitor puffin colonies in Caithness and chose the Isle of May for its field trial because of its accessibility.

Working with environmental and natural heritage stakeholders and Microsoft a method has been devised using artificial intelligence technology to measure the health of the puffin colony. The special feature of AI, is that the technology 'learns' not to count the same puffin twice in the field of view, which means the method is highly accurate.

### Benefits

Accurate and comprehensive scientific data is the most important initial stage of any attempt to conserve species. This approach should deliver a more reliable and accurate way to carry out puffin counts. The exercise on the Isle of May will support consideration of the approach to take in Caithness.

It may be one step forward for puffin-counting, but there are great hopes it will result in many steps forward for the accurate monitoring of other species that are important to SSE in its operations.

### Period

SSE started working with Microsoft at the end of 2019 on digital solutions and kicked off the first collaboration on puffin monitoring from May 2020. Many stakeholders are taking a keen interest in the results, which should be available at the end of the 2021 summer season.

### Providing environmental amenity during the pandemic

The ability to connect to nature and have access to outdoor spaces during the coronavirus pandemic has been essential for people's physical and mental wellbeing. SSE has a number of well-established ways in which it supports employees and communities to connect with nature, however the pandemic has, understandably, disrupted its efforts in this area. Despite this, many of SSE's assets have been able to continue to provide the recreational amenity for communities in the local vicinity and some of its employees found creative ways to engage customers on environmental issues, in particular through education programmes (see case study on page 38).



### Pitlochry Dam Visitor Centre enhances biodiversity offering

SSE's £4m Pitlochry Dam Visitor Centre (PDVC) promotes the heritage of hydro-electricity, as well as the present and future story of renewable energy. During 2020 when PDVC was unable to open to visitors, the team spent their time focused on developing their environmental efforts further and achieved a Gold award from Green Tourism, a certification programme which recognises the commitment of tourism businesses which are actively working to become more sustainable.

The introduction of swift and bat boxes, bug hotels and a wild garden for bees were just some of the measures put in place. When open, visitors are encouraged to explore biodiversity through exhibits including 'Managing Habitats' and 'The Salmon Lifecycle'. For more information about Pitlochry Dam Visitor Centre and its green credentials, visit [pitlochrydam.com](http://pitlochrydam.com).



### ENGAGEMENT IN ACTION



**Providing education resources on the natural environment**

In response to the coronavirus pandemic, SSE colleagues in Ireland found new ways to support customers and communities impacted by lockdown and new ways of learning from home. SSE Airtricity transformed its Eco Explorers Trail, which was established in association with its sustainability partner Dublin Zoo, into the Eco Explorers Club – an online educational programme to support primary school children and their parents, which allowed them to continue their sustainability education from their own homes.

In addition, voluntary organisation EcoEd4All which was formed by

a group of individuals including SSE Renewables employees and environmental professionals, was forced to take its education programme online as a result of the pandemic. The organisation has developed free environmental education course material for second-level students in Ireland covering the key sustainability topics, and the shift to online delivery has allowed the team to reach more teachers than before. Teacher training has now been completed at 18 Education Centres right across Ireland.

More information on these initiatives can be found in SSE's Biodiversity Report 2020, available at [sse.com/sustainability](http://sse.com/sustainability).

## RESPONSIBLE RESOURCE USE

SSE relies on many natural resources during the construction and operation of assets. It seeks to use these resources in a way that minimises waste and any adverse environmental impacts.

### Managing water use

SSE depends on water in various ways across its operations, from use in electricity generation to an amenity in its buildings, and it seeks to use water in a sustainable way. None of SSE's thermal fleet in England operate in areas of water stress, as defined by the Environment Agency. In Scotland and Ireland, the environmental regulators do not have a definition of water stressed areas, however, all water ways are classified under the EU Water Framework Directive and SSE's use of water in its operations is strictly controlled by the relevant environmental regulator in these jurisdictions.

Most of SSE's thermal plants are located near coastal areas, and as such a majority of the water abstracted is classed as sea water or estuarine/brackish water, meaning there is lower impact on

freshwater sources, although to meet the transition to net zero it is envisaged that abstraction from freshwater sources may increase in the future. SSE's hydro-electric generation operations do use freshwater in their operations, however the water that passes through these turbines to generate electricity is returned to the environment almost immediately and therefore the impact on freshwater sources is minimal.

In 2020/21, total water abstracted by SSE fell to 26,030 million m<sup>3</sup> from 27,757 million m<sup>3</sup> the previous year. This was largely due to a reduction in water passing through SSE's hydro-electric generation plant as a result of lower levels of rainfall compared to the previous year. The vast majority (97%) of water abstracted in 2020/21 was used in SSE's hydro-electric generation operations.

Total water abstracted excluding hydro-

electric generation activities increased to 830 million m<sup>3</sup> in 2019/20, compared to 722 million m<sup>3</sup> the previous year. This was largely as a result of increased running hours of some of SSE's thermal power plant in Ireland, but can also be attributed to a change in generation mix and the different types of cooling water used by SSE's thermal generation activities in the UK.

Total water consumed fell between 2019/20 and 2020/21 by almost 29%. This was due to a change in the generation mix and the different types of cooling water used by SSE's thermal generation activities.

SSE provides more detail on water risk management and performance in its annual CDP Water Programme response. SSE received a 'B' rating for its 2020 submission, which is publicly available at [sse.com/sustainability](http://sse.com/sustainability).

Water use	Unit	2020/21	2019/20
Total water abstracted	Million m <sup>3</sup>	26,030 <sup>(A)</sup>	27,757 <sup>(B)</sup>
Total water abstracted (exc. Hydro-electric generation)	Million m <sup>3</sup>	830	722
Total water returned	Million m <sup>3</sup>	26,027 <sup>(A)</sup>	27,751 <sup>(B)</sup>
Total water consumed	Million m <sup>3</sup>	3.6 <sup>(A)</sup>	6.9 <sup>(B)</sup>

(A) This data was subject to external independent assurance in 2021. For the limited assurance opinion see [sse.com/sustainability](http://sse.com/sustainability).

(B) This data was subject to external independent assurance in 2020. For the limited assurance opinion see [sse.com/sustainability](http://sse.com/sustainability).



**Reducing air emissions**

In 2020/21, SSE's thermal generation sites emitted 4,103 tonnes of nitrogen oxides (NOx), compared 6,080 tonnes the previous year – a reduction of 33%. In addition, emissions of sulphur dioxide (SO<sub>2</sub>) fell considerably by 44%, to 1,372 tonnes from 2,464 tonnes the previous year. Both of these reductions were as a result of the closure of SSE's last remaining coal-fired generation plant in March 2020.

In 2019/20, SSE's sulphur hexafluoride (SF<sub>6</sub>) emissions fell slightly to 295kg from 318kg the previous year. In 2020/21, SSE's electricity networks businesses reviewed the methodology used to report SF<sub>6</sub> data, therefore 2019/20 data has been restated.

In 2020/21, SSEN Distribution continued to implement its strategy to minimise switchgear SF<sub>6</sub> leakage, which includes a pro-active approach to its SF<sub>6</sub> switchgear repairs process and better targeting of leaking SF<sub>6</sub> assets for replacement or intervention. Externally, it is taking an active role in addressing the issue of SF<sub>6</sub> and currently chairs the Energy Networks Association SF<sub>6</sub> (IIG) Strategy group. In addition, SSEN Transmission is currently working with suppliers to find alternatives to SF<sub>6</sub> – see page 60 for more detail.

**Managing SSE's energy consumption**

Between 2019/20 and 2020/21, the energy SSE purchased for use in its assets (offices, depots, power stations and data centres) fell by almost 30%, from 334GWh to 234GWh. This was largely due to reduced electricity use in the operation SSE's thermal generation plant, due to the closure of SSE's last coal-fired power plant. In this period, 39% of the electricity that SSE purchased for its assets was from renewable sources, up from 29% the previous year.

SSE is a member of the Climate Group's EP100 initiative to encourage businesses to improve energy productivity and has pledged to cut carbon from its offices and depots by 20% by 2030 from a 2017/18 baseline.

SSE provides SSE's detailed disclosures in line with the UK Government Streamlined Energy and Carbon Reporting requirements on pages 38, 42 and 43 of its Annual Report 2020. This includes information about investment in energy efficiency measures and SSE's 'Better Off' behaviour change campaign.



*"Rather than thinking of waste as something to dispose of, we need to change our thinking to consider waste as a resource we've not yet used. The first step in that new journey for SSE is a more detailed inventory of the 'waste' created, determining the onward journey that resource will take."*

**Mark Patterson,**  
Director of Safety,  
Health and the Environment

Air emissions	Unit	2020/21	2019/20
Sulphur dioxide (SO <sub>2</sub> ) – thermal generation	Tonnes	1,372	2,464
Nitrogen oxide (NOx) – thermal generation	Tonnes	4,103	6,080
Sulphur hexafluoride (SF <sub>6</sub> ) – thermal generation and electricity transmission and distribution activities	kg	295	318

**SSE's waste strategy**

SSE has waste management controls within each of its businesses and aims to follow the waste hierarchy to reduce, reuse and recycle its waste. It has an internal Waste Management Standard that guides its businesses in their day-to-day activities. SSE provides recycling facilities at its key offices and operational sites and adheres to the relevant regulatory requirements for waste management at its different sites and locations.

As part of SSE's Group Environment Strategy, each of its businesses have goals around responsible resource use that contribute towards the Group ambitions. For example, SSE Renewables is investigating the options for diverting end of life fibreglass from landfill (see case study) and SSEN Transmission is developing specific waste and resource use requirements across waste streams from operations and construction projects, and as a regulated business it has set itself targets of zero waste to landfill and 70% or greater recycling, reuse, recovery rate by 2026.

**Understanding SSE's waste data**

SSE's waste improvement programme aims to improve the management and reporting of its waste performance, and to establish a comprehensive baseline of waste data in 2020 against which future waste targets can be set.

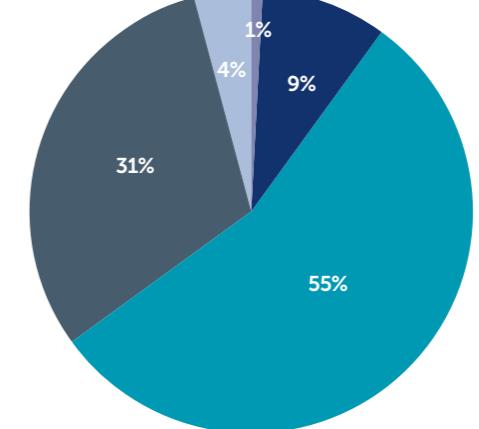


SSE's waste improvement programme completed a phased mobilisation over the course of 2020/21 and as a result the data collated does not represent a complete year's worth of data. In addition, due to the coronavirus pandemic, 2020/21 has not been a typical year for SSE in terms of waste production, meaning creating an accurate baseline of waste data has been challenging over this period. However, as the second half of the financial year saw SSE's activities returning to a new normal, it is confident that an acceptable baseline can be created with some reasonable estimates using the data it has gathered over 2020/21.

In 2020/21, SSE recorded 2,321 tonnes of waste, around 55 tonnes of which

was hazardous waste. The majority of SSE's total waste recorded was sent to energy from waste and almost a third was recycled. More detail of the waste disposal methods of SSE's recorded waste in 2020/21 can be seen in the chart below.

The figures provided represent SSE's operational waste, and don't include waste data from contractors on large capital projects or minor works contracts. It also excludes information from some specialised waste streams that SSE's main waste contractor does not collect e.g. scrap metal and electrical insulating oil. Both of these waste streams are recycled or processed to allow for reuse by the third parties that deal with them.

**Disposal methods of SSE's recorded waste 2020/21 by proportion**

- Landfill
- Energy from waste
- Recycled
- Composted/anaerobic digestion
- Treated

**Addressing a future waste challenge in renewables**

A key future challenge facing the renewables industry relates to the end-of-life use of the component parts of wind turbines. To avoid turbine blades becoming landfill at the end of their economic life, SSE Renewables has joined SusWIND, a UK initiative between industry, academia and government launched to advance technology for sustainable and recyclable wind turbine blades.

Bringing together stakeholders in the composites industry and energy sector, the SusWIND collaboration hopes to accelerate the development of technology, processes and materials that address this recyclability challenge for wind turbine blades already in use and to deliver a next generation of recyclable blades.

# PROVIDING AFFORDABLE AND CLEAN ENERGY

SSE has a key role in supporting the delivery of an accessible, low-carbon energy system that is affordable, reliable and sustainable for energy consumers.

From driving down the cost of generating electricity from renewables, the provision of low-carbon energy solutions and green products to customers, to the careful balancing of consumer interests in electricity networks business plans – SSE's businesses seek to ensure the transition to net zero represents real value for consumers. It works to ensure that the energy it supplies to customers is not only affordable but is accessible too, and strives to offer services that are inclusive to all.



## Treble renewable energy output

Progress made in 2020/21, despite the operational challenges posed by coronavirus, gives SSE the confidence that it will exceed its target of trebling renewable energy output by 2030 compared to a 2017/18 baseline.



Final investment decisions taken on key offshore wind projects in early 2020/21 (see page 58) and ongoing construction mean SSE is currently leading the construction of more offshore wind capacity than any other company in the world. SSE's renewable generation output decreased between 2019/20 and 2020/21, from 11,442GWh to 10,242GWh, mainly due to unfavourable weather conditions across both wind and hydro. Despite this, renewable generation output in 2020/21 represented an increase of 4% compared to the 2017/18 baseline.





## Performance Summary

SDG target	KPI	Unit	2020/21	2019/20
<b>7.1</b> Universal access	Networks customers on the Priority Services Register (PSR)	Number	770,844	746,821
	Customer minutes lost – SHEPD/SEPD	Average per customer	57/44	56/46
	Customer interruptions – SHEPD/SEPD	Per 100 customers	64/48	63/47
	Total renewable generation output <sup>1</sup>	GWh	9,649	10,753
<b>7.2</b> Renewable energy	Renewable generation output – proportion of SSE's total output	%	34.8	37.7
	Total renewable generation output including constrained off GB wind <sup>1</sup>	GWh	10,242	11,442
	Total renewable generation capacity <sup>1</sup>	MW	3,897	3,992
<b>7.3</b> Energy efficiency	Renewable capacity in construction and operation <sup>2</sup>	GW	5.8	4.0
	Business Energy smart meter operating volumes (gas and electricity) <sup>3</sup>	Number	160,970	157,409
	Meter Point Administration Numbers (MPANs) supplied with SSE Green 100% renewable electricity <sup>4</sup>	Number	62,742	49,080
	Energy saved as a result of energy efficiency measures targeted to fuel poor households in Ireland	Million kWh	5.0	5.8

## DELIVERING NET ZERO IN A COST-EFFECTIVE WAY

The scale of infrastructure investment needed to deliver net zero requires innovative technology, partnership models and sustainable financing to deliver value for money for all energy consumers.

### Advancing technology to drive affordability

Advances in technology across the energy industry are meaning cost-effective solutions to support the transition are being developed or put into practice.

In renewables, larger turbine capacities and efficient financing have made wind power one of the cheapest forms of power generation in many countries. SSE Renewables is demonstrating such technologies on projects like its Dogger Bank joint venture where the ground-breaking 14MW GE Haliade-X turbine, the most powerful offshore wind turbine in operation today, is being debited.

In the transition to net zero, thermal power stations with carbon capture and storage (CCS) technology and, in time, fired by hydrogen will be an effective way of meeting growing peak and seasonal electricity demands. SSE Thermal has announced an agreement with Equinor to

co-develop low-carbon thermal options at its Keadby site, in North Lincolnshire, and at its Peterhead site, in Aberdeenshire. See more information on page 65.

Additionally, in electricity networks, High Voltage Direct Current (HVDC) technology is increasing the capacity and cost effectiveness of transmitting lower-cost renewable energy over long distances, which is, in turn, improving the viability of offshore and remote sources of renewables. Over 2020/21, SSEN Transmission made good progress on the Shetland HVDC link, which will connect new renewable generation and secure Shetland's supply.

### Targeting a trebling in renewable generation output

Mainly due to unfavourable weather conditions across both wind and hydro, SSE's renewable energy output decreased between 2019/20 and 2020/21, from 11,442GWh to 10,242GWh. Despite this,

renewable energy output in 2020/21 represented an increase of 4% compared to the 2017/18 baseline. SSE also reached final investment decisions on key renewables projects and, as a result, is constructing more offshore wind than any other company in the world.

### Green finance for the net zero transition

SSE understands that investors are increasingly looking for robust mechanisms through which they can ensure their investments are sustainable and take account of climate-related risks. As a result, SSE has deliberately pursued a strategy of issuing Green Bonds to finance its investment plans.

In March 2021, SSEN Transmission issued a new £500m Green Bond, the proceeds of which were directly allocated to fund part of SSEN Transmission's programme of critical investments in transmission network infrastructure that will help accommodate the significant increase in renewables



required to achieve the transition to net zero emissions.

This was SSE's fourth green bond in five years, reaffirming its position as the largest issuer of Green Bonds in the FTSE 100 and bringing the total outstanding to £2bn.

A summary of SSE's fourth Green Bond can be found on page 108. SSE's full annual update to investors on the allocation of proceeds and environmental impact from its Green Bonds is available at [sse.com/greenbond](http://sse.com/greenbond).

### A new framework for sustainable investment

In March 2021, SSE published a new framework under which it can issue Sustainability-Linked Bonds to complement SSE's Green Bond funding programme and fit in well within its sustainable finance strategy. Unlike a green bond, where proceeds are ringfenced for qualifying low-carbon investments, a sustainability-linked bond would set a coupon based on a commitment from the company to achieve strategic, sustainability-related performance indicators.

As part of the framework, SSE will assess

its sustainability performance against the following well-established Sustainability Performance Targets:

- Reduce carbon intensity of electricity generated by 60%, by 2030 compared to 2017/18 levels.
- Develop and build by 2030 more renewable energy to contribute renewable output of 30TWh a year, compared to 2017/18 base year.
- Reduce absolute Scope 1 and 2 GHG emissions by 40% by 2030, from a 2017/18 base year.

The Sustainability-Linked Bond Framework, alongside the second-party opinion, is available at [sse.com/greenbond](http://sse.com/greenbond).

<sup>1</sup> Figures include pumped storage and biomass.

<sup>2</sup> Based on SSE equity stake.

<sup>3</sup> SMETS1, SMETS2 and AMR meters at 31 March in each year. SMETS1 meters installed before 5 December 2018 are counted as compliant.

<sup>4</sup> Individual companies may have more than one MPAN so figures are not representative of customer numbers.



## SERVING ELECTRICITY DISTRIBUTION CUSTOMERS

**During the pandemic, SSE Distribution has been working to keep the power flowing to the 3.8 million homes and businesses it serves. Its role to support those most vulnerable in society has never been more critical.**

### Keeping customers connecting during coronavirus

In response to the coronavirus pandemic, SSE Distribution has adapted to keep customers and employees safe, while working collaboratively with partners to improve the services it provides.

Operational activities focused on critical work that ensures a safe, reliable and resilient supply of electricity to customers and progressing timely connections to sites that are vital to the coronavirus response and for medium-term network resilience. Frontline healthcare sites were prioritised for connections and a dedicated phone line was established for hospitals, health centres and care homes to ensure optimisation of incident response. All work was undertaken following strict social distancing guidelines and other measures to protect SSE Distribution's customers, communities and workforce.

The pandemic has demonstrated the complex and transient nature of consumer vulnerability, with additional measures put in place to support those most vulnerable and isolated. This included: the extension of SSE's Priority Services Register; establishing a dedicated team to proactively call customers who may be at risk of social isolation during the lockdown period, with 6,000 welfare calls being made; and, enhancing its customer vulnerability mapping tool.

### Expanding and improving the Priority Services Register

The Priority Services Register (PSR) is a free service which provides adapted services and additional support for customers in vulnerable situations being impacted by energy issues. Over 2020/21, SSE took action to increase the reach of the PSR to allow it to support as many people as possible during the pandemic. The PSR was extended to be made available for customers who were instructed to self-isolate for a 12-week period, 309 vaccination centers were added to the PSR to benefit from advice and SSE teams, and a new joint Priority



### DILEMMA

#### PROMOTING THE PSR WITHIN DATA SHARING RULES

Stakeholders have previously asked SSEN to consider the introduction of a singular, utility wide PSR register. Whilst the rationale for this is clear, currently there is a misalignment between this request and GDPR obligations. For example, data such as sense of smell or taste is key to water or gas utilities but is not relevant to a DNO. As such SSEN should not hold this data. SSEN has been working to find a solution, which ensures compliance with GDPR and makes the promotion of and registration to PSR in Scotland easier for consumers.

In 2020/21, SSE Distribution launched a new joint Priority Services Register Scotland website in collaboration with Scottish Water and SP Energy Networks, to offer a PSR one-stop-shop across Scotland, making it easier for customers to sign up and for partners to promote the services to those that need them the most. The website provides customers with information about the free help available in their area, direct links to each company's PSR registration page, and raises awareness of the PSR across geographic license areas. The website has been shared with over 26,000 users of the Neighbourhood Watch Scotland scheme, and has led to a 272% increase in visits to combined PSR pages.

Services Register Scotland website was launched with partners to make it easier for SSEN's customers in the north of Scotland to sign up (see dilemma). Additionally, SSEN continued identifying and reducing PSR gaps through enhanced data usage, by strategically using its Customer Mapping Tool to build on the successful identification of PSR-eligible customers who are the hardest to reach in communities.

In addition, the PSR awareness campaign was improved to reach more vulnerable people during a key time of need. The campaign included local radio, regional newspaper, targeted online, and door drop adverts to highlight the services provided and encourage people to get in touch if they required help. At 31 March 2021, the number of customers signed up to the PSR increased to 770,844, compared to 746,821 the previous year.

### Working towards international standards for inclusive service

In 2020/21, SSE Distribution was successfully assessed against the British Standard for Inclusive Service Verification (BS 18477) for the sixth consecutive year and continued to actively participate in the International Organisation for Standardisation (ISO) working group for new international inclusive service standards. In helping to create an international standard SSEN Distribution is raising levels of service, inclusivity and accessibility across the world. SSEN Distribution has been a member of the ISO 22458 Consumer Vulnerability working group since its creation in 2018 and its first-hand experience of implementing BS 18477 has been invaluable in supporting the drafting process.

### Helping to reduce fuel poverty

As fuel poverty is a complex issue with

many contributing factors, SSEN Distribution works in partnership with many others to support customers experiencing fuel poverty. To ensure customers at risk of fuel poverty access the support they need, SSEN Distribution either refers them to third party energy efficiency agencies or works with partners who undertake outreach initiatives in communities identified as having high fuel poverty rates.

In 2020/21, the number of referrals to energy efficiency agencies in Scotland and England trebled. SSEN Distribution worked with partners on projects including enhancing partnerships with Citizens Advice for energy advice support in Scotland and Hampshire, and sharing the customer mapping tool with third parties to allow for targeted energy efficiency interventions. More information can be found at [ssen.co.uk](http://ssen.co.uk).

### Ensuring an inclusive and accessible transition to net zero

SSEN is committed to ensuring that no one is left behind in the transition to net zero by embedding fairness and inclusivity with consumers and communities in mind, and ensuring opportunities for all to benefit from the transition are built into projects. This is

identified as a key principle in SSE's Just Transition Strategy (see pages 66 to 69). In 2020/21 SSE continued to focus on making electric vehicles (EVs) accessible to all and ensuring the smart grid of the future benefits everyone.

### Making EVs accessible to all

With 2.4 million motorists with disabilities in the UK, it is vital that they are supported in the transition to EVs. SSEN Distribution is working with Disabled Motoring UK to understand the unique barriers faced by drivers with disabilities.

Through research and engagement on the EV Charger Location project it was found that EV ownership for people with disabilities is low, due to heavy charging cables and inaccessible charging point bays.

The project will undertake a feasibility study to understand requirements and barriers for disabled and vulnerable motorists. This work will inform required adaptations to services to support transient vulnerabilities caused if a customer cannot use transport when needed, perhaps due to supply interruptions.

### Ensuring the smart grid of the future benefits everyone

The emergence of a digital electricity grid



### PARTNERING IN ACTION



### Improving broadband connectivity for remote Islands

In 2020/21, SSE Distribution and Shetland Islands Council (SIC) entered into a first-of-its-kind partnership to provide community broadband through network infrastructure. SSEN Distribution is responsible for 454km of submarine electricity cables powering 59 Scottish islands and the Isle of Wight. As the cables come to the end of their operational life, they are being replaced by new cable with fibre optic capability, which provides an opportunity to unlock additional broadband connectivity for many digitally-poor island communities.

Following an approach by SIC's Shetland Telecom Project, SSE Distribution worked collaboratively over 12 months with SIC to enable access to subsea fibre

will be key to reducing carbon emissions locally. It also creates opportunities for consumers to manage their energy, with the potential of reducing energy costs. Currently access to smart services such as flexibility payments, time-of-use tariffs and electric vehicle tariffs, is limited to a relatively small group of early technology adopters.

SSEN Distribution is supporting the 'Smart and Fair' research programme, led by the Centre for Sustainable Energy, which explores social justice in the future energy system. The Phase 1 Report, published in September 2020, investigated how this can be achieved without leaving consumers behind and involved developing an analytical framework to measure the impact of changes to the energy system on a diverse group of customers. The research programme has made several recommendations to Ofgem, the UK Government, consumer advocates and energy practitioners (network companies and suppliers), with key findings adopted by the Just Transition Commission's final recommendations to the Scottish Government (see also pages 66 to 69) for more information on SSE's Just Transition Strategy).

optics. Outcomes from the partnership have included:

- The first ever fibre optic connection to Yell and Unst;
- Roll out of faster broadband to 21 public sector sites including schools, medical centres and council buildings, reducing the inequality of online service provision;
- Wider deployment of NHS Shetland Telemedicine initiatives, previously hampered by poor broadband connections;
- £2 million cost saving to SIC, alongside improved access to online training and workforce development to boost the local economy; and,
- Potential to connect nine SSEN substations via Shetland Telecom infrastructure, enhancing asset management capabilities.



## LOW-CARBON SOLUTIONS FOR ENERGY CUSTOMERS

### SSE's competitive customer businesses

#### **SSE Business Energy**

Provides a shopfront and route to market for SSE's low-carbon energy solutions and green products to non-domestic customers across GB, and has around 480,000 customer accounts.

#### **SSE Airtricity**

Ireland's leading supplier of renewable electricity and related energy services to around 680,000 customers across the island of Ireland.

#### **SSE Enterprise**

Provides integrated energy-related services to industrial and commercial customers, with a focus on distributed energy it has over 10,500 heat network customer accounts.

With awareness about the importance of climate action continuing to grow amongst businesses and consumers, SSE's competitive customer businesses can power change and support customers in the transition to net zero by embracing green energy products and more sustainable practices.



**"We are committed to working with customers across the UK and Ireland providing energy solutions for their decarbonisation journeys. We firmly believe that investing in low-carbon solutions is a win-win for businesses and our planet, and are proud to provide green solutions to support customers' net zero ambitions."**

#### **Nikki Flanders**

Managing Director,  
Energy Customer Solutions  
UK and Ireland

#### **SSE Business Energy**

##### **Helping business customers go green**

SSE Business Energy offers customers 100% clean, fully traceable renewable electricity, providing a simple, affordable way for them to cut their carbon footprint, report zero carbon emissions and demonstrate their commitment to sustainability. Over 2020/21, the number of customer premises on SSE Business Energy's green electricity tariff increased by 22%, with 62,742 meter points supplied with 100% renewable electricity in March 2021, compared to 49,080 in March 2020. In the same period, it supplied 4.7TWh of SSE asset-backed wind and hydro-generated electricity to its customers, bringing the total supplied since April 2016 to 16TWh.

Through 2020 SSE engaged with many of its largest customer on their decarbonisation challenges, with Scope 3 emissions consistently noted. In response SSE continues to evolve its "Greening your Supply Chain" proposition allowing customer's supply chain access to 100% traceable green electricity at their supply terms. Furthermore, SSE will work with and support its customers in educating their supply chain on the climate imperative and proactive steps businesses can take to reduce their emissions.

In May 2021, SSE Business Energy announced a new Corporate Power Purchase Agreement product. Responding

to customer feedback, this simplified product increases customer accessibility to 100% renewable energy directly from named wind farms operated by SSE Renewables. More information can be found at [ssebusinessenergy.co.uk](http://ssebusinessenergy.co.uk).

##### **Progressing the smart meter rollout**

With smart meters being the key enabler for a flexible and digital smart electric future, SSE Business Energy met its 2020 obligations to install smart meters to its customers and continues to progress with the rollout. At 31 March 2021, SSE Business Energy had installed a cumulative total of over 160,000 smart meters.

#### **SSE Airtricity**

##### **Supporting customers and communities during coronavirus**

Throughout the coronavirus pandemic, a number of SSE Airtricity physical services were suspended due to lockdown restrictions. However, it continued to provide essential services and also put in additional measures to ensure its most vulnerable customers were being supported. Some key actions included:

- **Increasing emergency credit:** a collective decision was taken by the energy sector, that customers with prepayment meters in the Republic of Ireland, the emergency credit increased tenfold, from €10 to €100, during this period.
- **Reduced energy prices:** standard unit rates for home electricity and



### PARTNERING IN ACTION



#### **Getting Together Housing's energy data all under one roof**

Together Housing, one of Northern England's largest housing association, has a complex portfolio of properties with equally complex energy needs. Their reliance on estimated billing was affecting the accuracy of their forecasting so they needed a single source of data to simplify their energy management.

With the Government's smart meter initiative removing cost implications, they were keen to find a smart solution to their billing requirements. Together Housing chose to install Automated Meter Reading (AMR) smart meters bringing an end to estimated billing by providing accurate meter readings remotely. They also give Together Housing near real-time access to their energy consumption data.

The key to understanding all this information is Clarity – SSE Business Energy's free online energy

gas customers reduced in Republic of Ireland from 1 May 2020 by an average of €102 annually.

- **Suspending disconnections:** SSE Airtricity voluntarily imposed a moratorium on all disconnection activity for home energy consumers across the island of Ireland, to support customers during lockdown.

SSE Airtricity also took steps to support the most vulnerable members of its communities, providing support of over €200,000 in 2020 through its partnership homelessness charity, Simon Community. The support included: a €150,000 contribution made to help the charity with essential safety and PPE equipment; over €10,000 raised by employees across Ireland who took part in a Virtual Sleepout for Simon; and, a €40,000 donation from the SSE Group on behalf of employees. SSE Airtricity continues to support the efforts of Simon Community into 2021.

#### **Democratising green**

Energy suppliers have a key role to play in encouraging the behavioural changes needed by both commercial and domestic energy consumers needed to reduce carbon emissions. Over the past year, SSE Airtricity has added projects and partnerships to its

activities that not only create accessibility to green energy solutions; but which also present customers with a complete approach to delivering energy efficient power and cost savings.

Ease of access to energy efficient solution is key to empowering customers. Alongside solar, lighting and insulation solutions SSE Airtricity have now introduced a new EV partnership to assist customers in sourcing and installing EV charging infrastructure. This innovation is designed to assist customers and lower barriers for fuel switching to lower carbon transport solutions.

Meanwhile, SSE Airtricity continues to innovate its core products to help businesses and households be more energy efficient. Responding to changing work patterns it reshaped product offers to assist customers setting up at home and easily access 100% green electricity from SSE renewables in Ireland. This has helped at home workers decarbonise and provide an enduring support for reduced transport related emissions.

#### **Generation Green Home Upgrade**

SSE Airtricity has partnered with An Post (the state-owned company providing postal, distribution and financial services in Ireland)

management platform. Clarity acts as a unified source of data for the Association's energy team. It presents data AMRs in a suite of useful reports, making it easy to create accurate forecasts. One key benefit is the ability to drill down to compare the energy use of like-for-like properties. This means that, for example, if two similar blocks of sheltered housing have wildly different usage data, they can investigate. Whether there's a problem with the fabric of the building (poor insulation, for example) or there's a behavioural issue (setting thermostats too high) it can be rectified quickly.

The new AMRs will also be an integral part of their Together Energy Solar Battery Project. A trial is under way to install solar and battery systems on 250 of the association's properties. Battery systems store any unused solar power to be used whenever it's needed. Together Housing estimate that in a year, a typical household would save around £300 a year.

for its innovative Generation Green Home Upgrade Programme, a 'one stop shop' for home energy retrofits, that will help Ireland transition to a more sustainable future.

The Generation Green Home Upgrade aims to cut through the complexity for consumers by providing the whole-home retrofit solution alongside straightforward low-cost finance options under one roof. The SSE Airtricity Energy Services team provides expert end-to-end project management for home energy renovations, including free surveys and advice on the best way to renovate homes; while working with some of Ireland's leading service providers to deliver the upgrades. This programme will create up to 40 new skilled jobs including project managers, surveyors, and administrators. In addition, the work generated by SSE Airtricity will indirectly support up to 150 additional jobs across its contracting partners and suppliers.

This programme is a first-of-its-kind in Ireland and will support the Irish Government's ambitions to retrofit up to 500,000 houses by 2030. Once delivered, the Generation Green Home Upgrade will equate to around €20m in reduced energy costs every year for Irish households.



## INNOVATION IN ACTION

### Powering classrooms with Solar for Schools

In the past few years, SSE Airtricity has supported its client Microsoft Ireland with innovative projects to bring renewable energy solutions to communities across Ireland. In September 2020, the most ambitious project to date was announced – the 'Solar for Schools' programme. Solar for Schools enables schools to power classrooms using energy generated from internet-connected solar panels on their own roof, helping them to reduce both their carbon footprint and their costs.

Thanks to an investment of €1m from the Microsoft Sustainability Fund, throughout summer 2020 SSE Airtricity's Energy Services teams installed Solar PV on idle roof space at 27 schools around Ireland.

The project also seeks to prove the viability of distributed energy generation – electrical generation and storage performed by a variety of small, grid-connected or distribution system-connected devices. When all sites are combined, the project provides a proof of concept that the solar panels could offer an alternative

to a utility scale solar farm, using locations distributed across Ireland that already have a connection to the electricity grid. Software tools aggregate and analyse real-time data on energy generated by the solar panels, demonstrating a mechanism to achieve sustainability goals and reduce the carbon footprint of the electric power grid.

A further key objective of the project is to educate students about the role they can play in combatting climate change. Digital screens have been set up in all of the schools for students to track energy use in real time, allowing them to see the impact of the energy efficiency upgrades in their school. Students from the schools will also participate in a programme designed to educate and inform young people about the challenges posed by climate change and the role technology can play in creating more sustainable communities across Ireland.

#### Period

2020

#### Benefits

Over 15 years, it is expected that the

solar panels will produce enough clean energy to offset more than approximately 2,100 tCO<sub>2</sub> emissions. Moreover, digital screens have been set up in 27 schools for students to track energy use in real time, allowing them to see the impact of the energy efficiency upgrades in their school and educate them in their impact on climate change.

#### In Collaboration with

Microsoft Ireland

**29**

Schools fitted with solar panels

#### Enough energy generation to power

**68 homes**

for a year

**2,100 tCO<sub>2</sub>**

Emissions offset by the solar panels

## SSE Enterprise

### Refocusing SSE Enterprise

SSE Enterprise is refocusing its business activity on distributed energy, which promises strong growth potential through 'whole system thinking' solutions, including distributed generation and storage, which will also enable the decarbonisation of transport and heating.

In April 2021, SSE announced it had entered into an agreement to sell its Contracting (and Rail) business as part of its ongoing disposal programme of non-core assets. The sale process is expected to complete by the end of June 2021 when around 1,900 Contracting employees will work under the new ownership.

### Heat networks providing low carbon heat

The Heat Networks division of SSE Enterprise is leading the way to

decarbonise heat networks across the UK, providing low-carbon heating and cooling networks for almost 10,500 customers across the private and public sector.

As a member of the Heat Networks Industry Council, the heat networks business is committed to helping all new heat networks in the UK achieve zero carbon by 2030 and all existing heat networks by 2035. This is vital for the UK's plan to transition to a net zero economy by 2050 (2045 in Scotland). Like all SSE companies, the heat networks business is aiming to cut greenhouse gas emissions from its own business operations to net zero as a first step.

In its own operations, SSE Heat Networks is using 100% renewable SSE Green Electricity in its offices and depots, reporting zero emissions from electricity that comes directly from SSE's own wind and hydro generation.



"Global climate targets require on the ground distributed energy solutions to provide practical steps for local authorities and organisations to get on the road to net zero. Our distributed energy division has the expertise to help society decarbonise in such as areas as transport and heat, so that we can help build cleaner and greener cities and places for our citizens."

**Neil Kirkby,**  
Managing Director,  
SSE Enterprise

estimated that the first phase of the project will save the institution an average of 1,375 tCO<sub>2</sub> per year - the equivalent annual energy use of 144 homes.

By integrating all power onto a single private network, the university will be able to use a much higher proportion of any onsite renewables, without the risk of exporting that electricity onto the grid. The new power system will expand on the university's existing solar resources, installing a further 400kW of solar PV into the new private network, which will then be used to supply the heat pump, further reducing carbon emissions on site.



## PARTNERING IN ACTION

### Providing low-carbon heating solutions

In 2021, SSE Enterprise signed a joint development agreement with Goldsmiths, University of London to design and deliver low-carbon campus infrastructure in pursuit of the university's ambitious target to become completely carbon neutral by 2025.

The project will combine the 11 major gas consuming sites on campus onto a unified campus wide heat network that will supply over 80% of the campus wide heat load. The system will heat the buildings using a low-carbon heat pump, removing the majority of gas consumption on site. It is

## INTRODUCING SSE ENERGY SOLUTIONS

In 2021, SSE Business Energy and SSE Enterprise's Distributed Energy division were brought together under the name 'SSE Energy Solutions'. SSE Energy Solutions provides greater access to green energy solutions for business and local authority customers. Taking a "whole system" approach it can tailor low-carbon solutions for business, however big or small.

# INVESTING IN INDUSTRY, INNOVATION AND INFRASTRUCTURE

Technological improvements and innovation are crucial if SSE is to achieve a secure and affordable transition to net zero.

SSE's significant capital investment plans in the low-carbon electricity infrastructure required for net zero will not only help deliver a zero-carbon electricity sector, but support the electrification, and therefore decarbonisation, of other key sectors. The scale of SSE's investment requires continuous innovation, and its approach is to partner with others to develop the technologies, experience and skills that it needs to accelerate projects in support of net zero.



## Help accommodate 10m electric vehicles



SSEN Distribution progressed with key innovation projects in collaboration with partners, to support flexible markets and future infrastructure provision for the mass adoption of EVs.

Key innovation projects progressed in 2020/21 include: Project LEO, the UK's most ambitious holistic smart grid trial; a fleet electrification project moving into physical trials; and, establishing a first-of-its-kind project facilitating data sharing between the automotive, charge point and electricity networks industries to allow for target investment in EV infrastructure. SSE also continued to increase the proportion of EVs used in its own operations by trialling a small fleet of fully electric vans, launching a new low-emission company car scheme and installing more EV charging infrastructure at its sites.





## Performance Summary

SDG target	KPI	Unit	2020/21	2019/20
9.1 Sustainable infrastructure: economic well-being	Investment and capital expenditure (adjusted): SSEN Transmission	£m	435.2	329.0
	SSEN Distribution	£m	350.8	364.9
	SSE Renewables	£m	294.3 <sup>1</sup>	342.7
	Thermal generation and gas storage	£m	108.4	177.2
	Cumulative total of renewable generation capacity connected to SSE's electricity transmission network	GW	6.7	6.3
	SSEN Distribution's supply points with communicable and smart capability <sup>2</sup>	Number (% of reported customer numbers)	902,703 (23%)	333,546 (9%)
9.4 Sustainable infrastructure: resource efficiency	SO <sub>2</sub> - thermal generation <sup>3</sup>	Tonnes	1,372	2,464
	NO <sub>x</sub> - thermal generation <sup>3</sup>	Tonnes	4,103	6,080
	SF <sub>6</sub> - thermal generation, transmission and distribution activities	kg	295	318 <sup>4</sup>
9.5 Sustainable infrastructure: research and innovation	Spend on research and innovation <sup>5</sup>	£m	12.0	-
	Employees working in research and development roles (full-time equivalent) <sup>5</sup>	Headcount	42.5	-

<sup>1</sup> Before project finance development expenditure refunds.

<sup>2</sup> Calculated using the number of smart meters connected to SSEN's distribution network which are communicable by SSEN as a proportion of SSEN Distribution's reported customer numbers.

<sup>3</sup> Figures include Irish thermal generation air emissions data for the periods between 1 January and 31 December and GB thermal generation air emissions data for the periods between 1 April and 31 March.

<sup>4</sup> Due to changes in methodologies in data collection in SSE's electricity transmission and distribution businesses, 2019/20 data has been restated. Detail of how data is collected can be found in SSE's GHG and Water reporting criteria, available at [sse.com/sustainability](http://sse.com/sustainability).

<sup>5</sup> Over 2020/21, SSE undertook a strategic review of its work on investment in research and innovation. 2019/20 data was not collated but instead a baseline of 2020/21 data has been created against which to benchmark future years' investment.

## CREATING VALUE IN THE TRANSITION TO NET ZERO

Achieving net zero will mean fundamental changes right across the economy and society, which create opportunities for increased efficiency and economic prosperity.

### Investment and innovation to accelerate net zero

SSE's approach to supporting net zero is focused on investing in the electricity infrastructure needed to deliver the transition. The scale of investment required for the net zero transition will be significant, and SSE has already committed to invest £7.5bn between March 2020 and March 2025, almost 90% of which will be in SSE's core businesses of electricity transmission, electricity distribution and renewable sources of electricity.

The transition to net zero will also require transformation across the energy system, and SSE's focus is on enabling, harnessing and deploying new technologies and innovations which can accelerate this journey. SSE has a well-established approach to innovation, focused on partnerships with others to develop the technologies, experience and skills that it needs to accelerate projects in support of net zero.

**£7.5bn**

Investment and capex planned in the five years to March 2025

**£12.0m**

Spent on research and innovation projects

**42.5**

Employees working in research and development roles (FTE)

**32**

Collaborative innovation partnerships currently ongoing

## SSE'S APPROACH TO INNOVATION AND TECHNOLOGY

SSE is focused on enabling, harnessing and deploying new technologies and innovations which can accelerate the journey to net zero and has a devolved model that empowers its businesses to be accountable for their own innovation strategies.

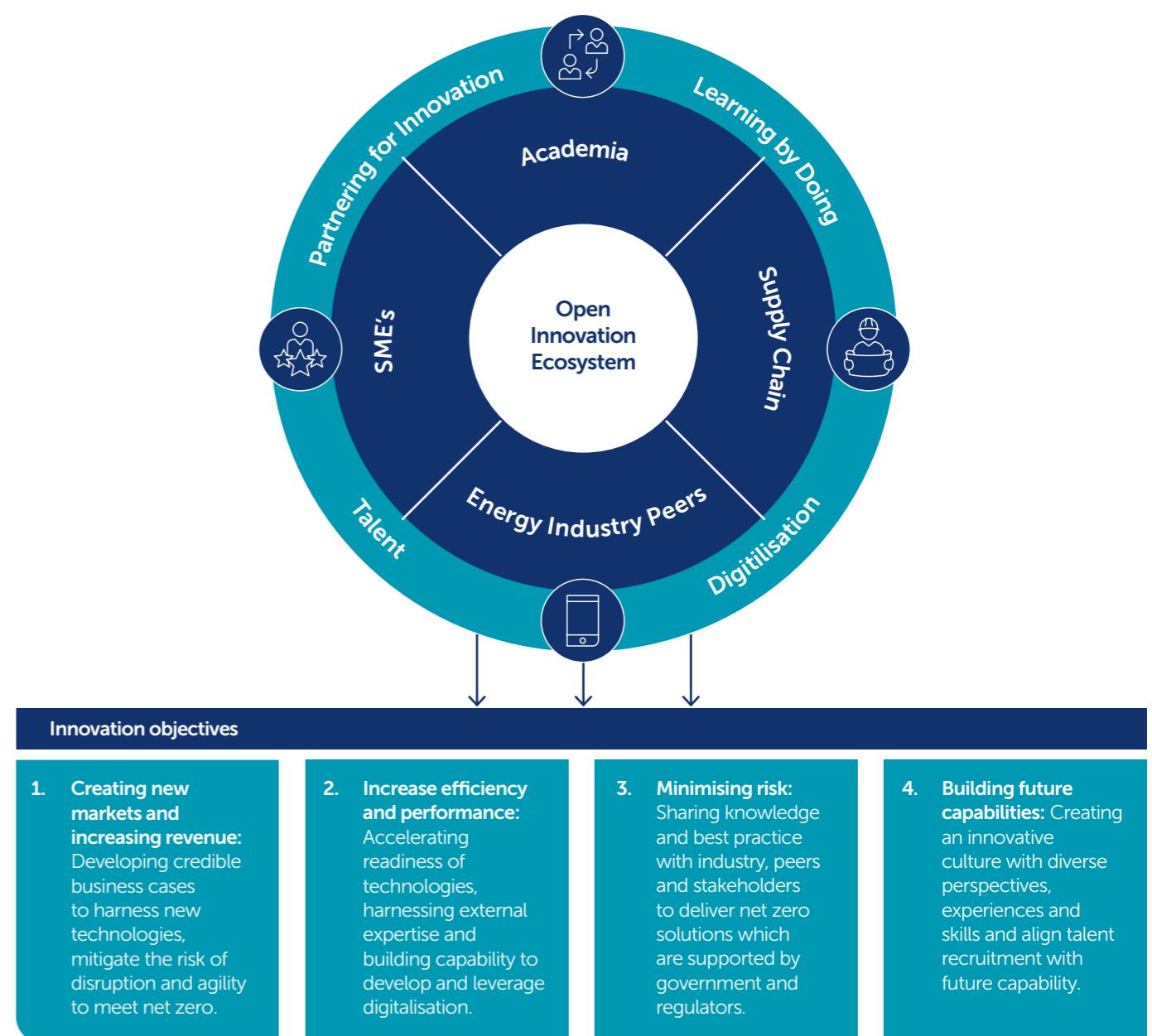
### Empowering innovation in SSE's business units

Each SSE business sets their own innovation priorities; whilst Group services co-ordinate cross-cutting innovation and growth areas. An open innovation ecosystem supports the SSE business to achieve their innovation priorities which is harnessed through four enabling pillars (Partnering for Innovation;

Learning by Doing; Digitalisation; and, Talent) which provide the businesses with access to technologies, experience and skills.

A culture of innovation is promoted through a dedicated innovation team within SSEN and two Engineering Centres of Excellence. The Networks Innovation team provide expertise

to leverage regulatory funding for innovation and their focus is on accelerating a low-carbon transition and co-creation with partners to develop whole-system solutions. The Engineering Technology Centres of Excellence with SSE Renewables and Thermal enable technology and digital solutions for cost-effective renewables and innovation in pumped hydro, CCS and hydrogen.





## PARTNERS FOR INNOVATION



SSE seeks to proactively engage with external partners including its peers, local authorities, supply chain, academia and wider industry and has built significant expertise and capability in forming effective consortia. Co-creation with energy industry peers is crucial to facilitate whole system solutions and SSE is a member of 32 ongoing Collaborative Innovation Partnerships. SSE has an enduring commitment to the University of Strathclyde of more than seven years and has been a member of the Imperial Business Partners programme for over two years.

**Value created**

- Proactive engagement with stakeholders
- Develop whole-system solutions
- Leverage external expertise, skills and funding
- Supported, open innovation ecosystem

**Innovation in action****Open innovation – page 59**

SSE Renewables' has launched Open Innovation challenges to seek solutions to real challenges faced in wind farms from across the supply chain including SMEs and start-ups.

**Trailing SF<sub>6</sub> alternatives – page 60**

SSEN Transmission is working with suppliers to use new, more environmentally friendly gas insulated equipment by installing SF<sub>6</sub> alternatives across its network.

## LEARNING BY DOING



SSE's aim is to accelerate technologies to higher readiness levels for deployment, learn from other utilities and industries and mitigate the risks of implementation of new technologies. SSE is a founding member of two National Demonstration Research Centres and leading industry projects such as Project LEO and Electricity Transmission Collaboration Panel, through which the businesses are able to manage trials to test and scale new solutions.

**Value created**

- Accelerate technologies to higher readiness levels in Demonstration Centres
- Mitigate risk of disruption
- Co-creative learning, sharing knowledge and best practice with industry, peers and stakeholders
- Build credible investment cases

**Innovation in action****Zero carbon clusters – page 65**

SSE Thermal is partnering with more than 25 leading industrials to develop plans for hydrogen and CCS as part of zero carbon industrial clusters.

**Demonstrating smart grids – page 63**

SSEN Distribution is a leading partner on Project LEO – one of the most ambitious and holistic smart grid trials ever undertaken.

## TALENT



SSE promotes a culture empowering employees to drive innovation and develop the ability to make decisions in uncertainty. This is done through programmes such as Generation Innovation, Enterprising Ideas, Ashridge leadership training programme, and a knowledge transfer partnership with the University of Strathclyde. SSE's talent strategy focuses on inclusivity, fairness and flexibility to actively engage a diverse range of talent in the market, as well as developing future leader learning for all and the capability to respond to the future needs of the business.

**Value created**

- Engage employees within a culture of innovation
- Align talent recruitment with future capability requirements
- Provide skills to innovate in high uncertainty

**Innovation in action****Supporting employee innovation – page 85**

SSE Thermal is leading the Generation Innovation initiative designed to promote innovative thinking and engagement whilst providing a channel for employee ideas to be supported and developed.

**Investing in future capability – page 75**

Developing a unique Procurement and Commercial Leadership Development Programme to deliver new skills for the energy transition to zero carbon.

## DIGITILISATION



Investment in and adoption of digital is fundamental to achieving successful development, efficient operation and responsible ownership of energy infrastructure. SSE invests in and adopts a range of digital solutions, including drones, AI and Digital twins. SSE continues to strengthen and evolve its approach to cyber risks with control frameworks to identify threats and reduce exposures. SSE also supports using open data to manage the network better and improve the customer experience.

**Value created**

- Capability to develop and leverage new digital platforms and technology
- Detect, protect and responding to evolving cyber risks
- Proactive engagement with wider industry and digitalization of the energy system

**Innovation in action****Solar for Schools – page 50**

SSE Airtricity is working with Microsoft Ireland to power classrooms with solar energy, using software tools to integrate and analyse real-time data to demonstrate a reduction in carbon footprint.

**Improving species monitoring with AI – page 37**

SSE Renewables has partnered with Microsoft to implement a new species monitoring technique on the Isle of May using AI.





## GENERATING CLEAN ENERGY FOR NET ZERO

SSE Renewables develops, constructs and operates world-class renewable electricity assets that generate the clean energy needed for net zero.

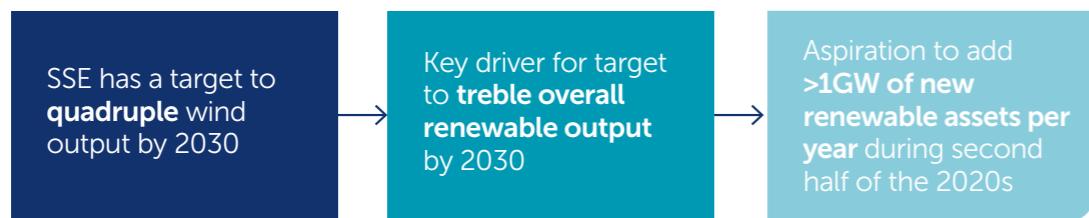
### Targeting increased renewable output

The first commitment in the UK Government's Ten Point Plan for a Green Industrial Revolution, published in November 2020, is to achieve 40GW of offshore wind capacity by 2030. In Ireland, the updated Climate Action Plan proposes a doubling of onshore capacity to 8GW and an offshore wind ambition of 5GW by 2030. These ambitions create a supportive policy environment for SSE to progress and develop onshore and offshore wind projects.

One of SSE's key 2030 Goals is to treble renewable energy output to 30TWh by 2030, which it expects to exceed. SSE is progressing key flagship wind projects and has a healthy pipeline of onshore and offshore wind opportunities, and has an ambition to quadruple its output from wind energy by 2030.

SSE has around 5.8GW of renewable generation capacity in construction and operation and is currently building more offshore wind than any other company in the world.

SSE also seeks to develop its pipeline further and is seeking to secure the rights to further seabed through Crown Estate Scotland's ScotWind leasing process, which will be completed towards the end of 2021. SSE welcomes the approach by Scotwind that places value on capability as well as seabed price. It also believes the Scotwind approach opens up further opportunities to secure a vibrant, healthy domestic supply chain.



### Progressing flagship wind projects

In 2020/21, SSE Renewables made good progress on key flagship wind projects. It reached a final investment decision (FID) on offshore wind projects: Dogger Bank A and B offshore wind farms (each 1,200MW, SSE Renewables share 40%), with Dogger Bank C aiming to reach financial close later this calendar year; and Seagreen 1 (1,075MW, SSE Renewables share 49%). Construction also began on the onshore Viking wind farm (443MW) in Shetland. Key details of these projects are outlined below. These projects will generate considerable socio-economic benefits, and create hundreds of direct jobs and thousands more in the supply chain (see page 76).

In addition to these key projects, construction started at Lenalea onshore wind farm in Ireland and first power was achieved at the onshore Gordonbush extension.

<p><b>Dogger Bank (A,B and C)</b></p> <p><b>3,600MW</b></p> <p>A&amp;B: SSE Renewables share 40% C: SSE Renewables share 50%</p> <p>The largest offshore wind farm in the world when complete</p> <p>Annual production of c. <b>18TWh</b></p>	<p><b>Seagreen 1</b></p> <p><b>1,075MW</b></p> <p>SSE Renewables share 49%</p> <p>The largest offshore wind farm in Scotland when complete</p> <p>Annual production of c. <b>5TWh</b></p>	<p><b>Viking</b></p> <p><b>443MW</b></p> <p>SSE Renewables share 100%</p> <p>One of the highest-yielding onshore wind farms in Europe when complete</p> <p>Annual production of c. <b>2TWh</b></p>
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### Continued in pumped hydro storage

SSE Renewables continues to see an important role for its Coire Glas pumped hydro storage project (up to 1,500MW) in providing critical low-carbon flexibility to balance increasing volumes of variable renewables. Coire Glas is the UK's largest planned pumped hydro storage scheme and was granted revised consent by the Scottish Government in October 2020, marking another step towards helping Scotland and the UK deliver their net zero ambitions.

The scheme would more than double existing pumped hydro capacity – potentially powering 3 million homes for up to 24 hours – and is the most proven long duration storage solution which could be built by 2030. Some clarity on the policy framework and route to market for such projects is expected from BEIS and Ofgem later in 2021.

### Developing opportunities abroad

With many countries setting out increasingly ambitious climate change targets, the market for renewables globally is growing rapidly and SSE continues to develop options for exporting its long-held renewables expertise to new geographies. SSE is primarily interested in offshore and onshore wind, where it is well placed to export its capabilities, working with local partners in growth markets.



"Generating vast amounts of electricity from renewable sources is the world's best chance of avoiding dangerous climate change. With wind energy now one of the most cost effective ways of generating electricity, our job at SSE is to invest and deploy it as quickly, efficiently and as sustainably as we can."

**Jim Smith**, Managing Director of SSE Renewables



### Innovative solutions to challenges in wind

SSE Renewables has launched a series of Open Innovation challenges focussed on live operational offshore and onshore wind farms, in areas typically costing the business at least £1m a year. A total of seven challenges were publicly posted during 2019 and 2020 and have attracted 46 innovative and high-quality responses from across the supply chain including start-ups, SMEs and large organisations. The appraisal of the solutions has led incorporation of new technologies in our specifications for new build windfarms and initiation of some trials with existing windfarms.

One challenge was seeking a predictive maintenance process that will significantly reduce unplanned maintenance of offshore wind generation electronic converters, a technology with common failures on board remote offshore wind turbines.

Data analytics experts Spartan Solutions, a SME company based in Glasgow have provided an innovative approach to develop and trial a new data analytics solution for fault detection in converters in partnership with SSE Renewables and the University of Strathclyde. The project is supported by funding from The Data Lab, Scotland's innovation centre for data and AI.

### Benefits

Once proven SSE hopes to apply the learnings in order to reduce operational downtime due to converter faults. Several other challenges remain live with supplier engagement ongoing to progress towards implementation or trial.

### In collaboration with

The development and delivery of the Open Innovation programme has been supported by Scottish Enterprise and the UK's Knowledge Transfer Network.



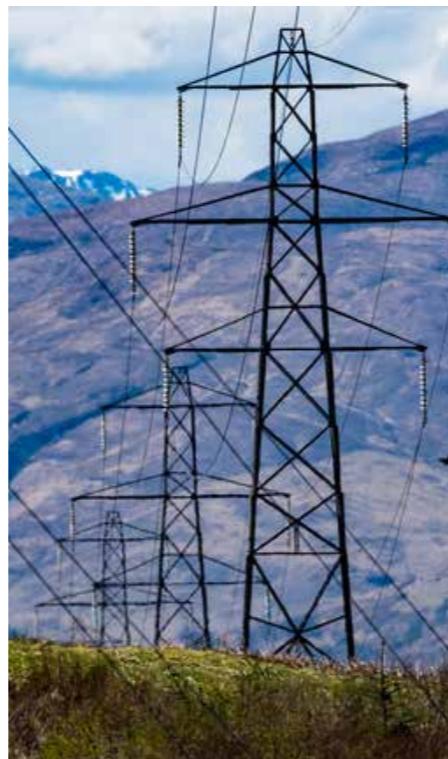
## ENABLING THE TRANSITION TO NET ZERO

SSEN's transmission network is at the forefront of the transition to net zero, transporting large volumes of renewable energy generated in the north of to the areas of demand further south.

### Creating a Network for Net Zero

Over 2020/21, SSEN Transmission has continued to progress its ambitious 'A Network for Net Zero' RIIO-T2 business plan for the price control period of 2021 to 2026. The business reached a final settlement with Ofgem, the regulator, for nearly £2.2bn of approved 'Certain View' investment in making the network fit for the future and the high volumes of renewable energy which will need transported from their generation sites in the north of Scotland. This settlement is consistent with SSE's existing £7.5bn investment and capital expenditure plan to March 2025.

Growing a network to meet the scale of change needed for net zero will require ambitious investment programmes over and above the baseline settlement of £2.2bn. In addition to the baseline settlement, Ofgem has also approved the Shetland HVDC link which could see over £650m spent to connect generation and secure Shetland's supply.



Construction has begun and the project remains on track for completion in 2024. This link will mean that, for the first time, Shetland will be connected to the GB electricity network, generating significant social value through access to a reliable and increasingly green supply of electricity.

Taking increased Scottish wind capacity south involves progressing further projects beyond the 'Certain View' too which SSEN Transmission hopes to gain approval for through Ofgem's RIIO-T2 'Uncertainty Mechanism'. This includes projects such as the proposed East Coast HVDC link from Peterhead to the northeast of England. SSEN Transmission's network has potential for a near trebling of connected generation by 2030, from 8GW in 2021 to 22GW, and the business will work constructively with Ofgem to ensure there is sufficient investment in the transmission network needed to enable the UK's ambitious net zero plans.



## INNOVATION IN ACTION

### Working with suppliers to find alternatives to SF<sub>6</sub>

SSEN Transmission continue to work with suppliers to use new, more environmentally friendly gas insulated equipment by installing SF<sub>6</sub> alternatives across its network. Since the installation of the first SF<sub>6</sub> gas free circuit breakers at their Dunbeath 132 kV substation in 2019, they have energised two further substations with SF<sub>6</sub> alternatives. As part of the New Deer project in

Aberdeenshire, SSEN Transmission worked with the GE and Amey consortium to energise the first g3 gas-insulated substation on its network, with the world's largest installation to date of g3 SF<sub>6</sub> free gas. Also, the new Glen Kyllachy substation near Tomatin in the Scottish Highlands is home to the first SF<sub>6</sub>-free Siemens Clean Air Power Voltage Transformers on the GB Transmission network.

### Benefits

Looking ahead, SSEN Transmission have established a partnership with GE Renewable Energy's Grid Solutions Business (with backing from the EU's LIFE Programme) to install g3 switchgear at their Kintore 400kV substation, which will be the first time globally that SF<sub>6</sub>-free gas insulated switchgear will be used at this voltage

### New North of Scotland Future Energy Scenarios for the net zero emissions pathway

Scenarios are an important business planning tool that present alternative views of the future. For electricity networks, scenarios focus on the potential future use of the network. Building on National Grid ESO's Future Energy Scenario's for GB, SSEN Transmission have published an update to their North of Scotland Future Energy Scenarios (2021).

SSEN Transmission's original scenarios looked at the time horizon out to 2030 as part of RIIO-T2 business plan to further understand the large-scale strategic transmission infrastructure projects over the coming decade. Since then, the UK Government legislated a net zero carbon emissions target for 2050. A 2045 net zero carbon emissions target has also been set by the Scottish Government.

With the focus on achieving net zero carbon emissions, the updated scenarios extended the time horizon from 2030 to 2050 to model how changes in the energy landscape will impact the transmission network in the longer term. These scenarios set out the view of a range of potential generation and demand scenarios in SSEN Transmission network area from now out to 2050, taking a "whole system" approach.

The updated North of Scotland Future Energy Scenarios have three scenarios: The Green Economy, The Green Society, and The Decelerated Transition. Of the three scenarios explored, two would lead us on the right pathway to net zero. The net zero scenarios highlighted that:

- By 2050, the north of Scotland will need 33-35GW of clean, green renewable capacity to support net zero delivery. For context, 6.7GW of renewable generation is currently connected in the north of Scotland.
- Based on 2019 figures, electricity demand is expected to increase up to 71% by 2050 as electrification of transport and heat grows to support net zero targets.

- Around 700,000 electric vehicles will be required in the north of Scotland by 2050 to decarbonise travel: nearly 200-times more than today.

The north of Scotland is already a net exporter of clean, green energy and has huge potential to grow this export over the coming decades. Looking forward, SSEN Transmission are now assessing the north of Scotland electricity sector contribution to net zero targets by comparing these North of Scotland Future Energy Scenarios with the recently publishing UK Climate Change Committee Sixth Carbon Budget.

### Fair for the Future

During 2020 SSEN Transmission participated in the final phase of the Fair for the Future Project, a major 3-year project led by think-tank Sustainability First. This project mapped the disruptive landscape of risks and opportunities behind the case for public purpose orientated utilities and set out what companies need to do to move in this direction (including how progress can be measured).

SSEN Transmission has already applied learning from this project in its approach to adaptive regulation: specifically on the management of uncertainty in strategic network planning; and, ensuring

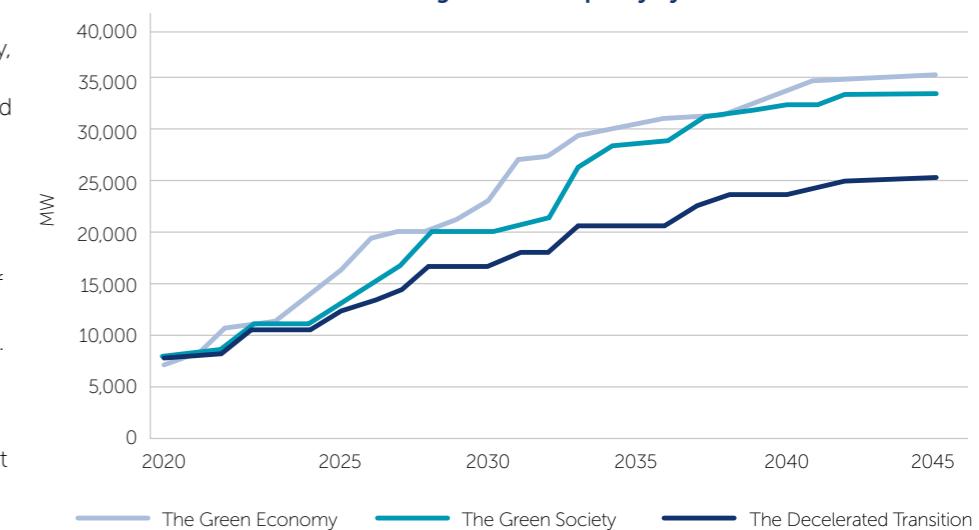


**"The abundance of wind and rain mean the north of Scotland has a hugely important role in both Scotland and the UK achieving their net zero carbon targets. Our job at SSEN Transmission is to transport large quantities of zero carbon electricity south, to where people need it."**

**Rob McDonald,**  
Managing Director,  
SSEN Transmission

optionality on large projects such as refurbishing aging infrastructure in Skye. In 2021, Sustainability First will run development sessions for the extended networks leadership team to embed this progressive thinking.

### Annual Installed generation capacity by scenario



## POWERING COMMUNITIES TO THEIR NET ZERO WORLD

Local electricity networks are on the cusp of a transformation that will make net zero a reality for communities across Great Britain.

SSEN Distribution is responsible for the distribution of electricity to 3.8 million homes and business in the north of Scotland and central southern England. The essential nature of its operations mean it must safely, reliably, and efficiently supply electricity at the same time as working in the public interest to ensure that the most vulnerable customers connected to its networks are protected. It must also consider the future requirements of its customers in the transition to net zero and the electrification of heat and transport.

In 2020/21, the focus of the business has been twofold: to bring the current price control to successful conclusion at the same time, establishing the groundwork for its RIIO-ED2 business plan.

### A green economic recovery from the coronavirus pandemic

In March 2021, Ofgem placed a call for evidence to propose projects that would both accelerate the transition to net zero and stimulate economic activity that would support local economies recovering from the economic impact of the coronavirus pandemic. With over 150 submissions from local stakeholders and Distribution Network Operators, it was announced that 12 proposals in SSEN Distribution network areas would be funded, representing £41m of investment. The projects represent an increase in network capacity of over 122MW during the next two years, upgrading the network to accommodate increased demand for electric vehicle charging and electrification of heat. This green recovery scheme provides an important blueprint for future agile investment in distribution networks in the coming years, where rapid progress will be required to keep pace with net zero.

### A smart and flexible network

Key to the future of electricity distribution networks is the creation of smart grids

that can respond dynamically, at a local level, to different patterns of both electricity supply and demand. Rather than simply building more network capacity in response to network constraints, SSEN's approach is 'flexibility first', where innovative contracts can release capacity for the benefit of its customers. In 2020/21 and additional 348MW of flexible energy contracts were secured, up from 98MW at the end of 2019/20.

With the smart meter roll out continuing in Great Britain, as of 31 March 2021 there are just over 900,000 smart meters connected to SSEN's network, compared to just over 330,000 at the same point the previous year, that can 'communicate' to SSEN's systems. This means that 23% of all SSEN's supply points have communicable and smart capability.

### A net zero business plan for RIIO-ED2

The next 10 years has been described as the decisive decade in tackling climate change and the period of the next Price Control falls into the middle of that key decade. The electricity distribution network will be the backbone of establishing net zero communities as customers turn to low carbon electrical solutions for transport, heating their homes, offices and factories, and use innovative technologies for manufacturing and construction.

Through 2020, stakeholders were consulted on its sustainability strategy, which seeks to be the framework from which many of the building blocks of the RIIO-ED2 business plan fall. SSEN Distribution's sustainability strategy sets out to not only tackle the speed of change needed to deliver net zero, but to do so in a responsible way. Its draft business plan, informed by an extensive stakeholder engagement programme, will be published in July 2021.

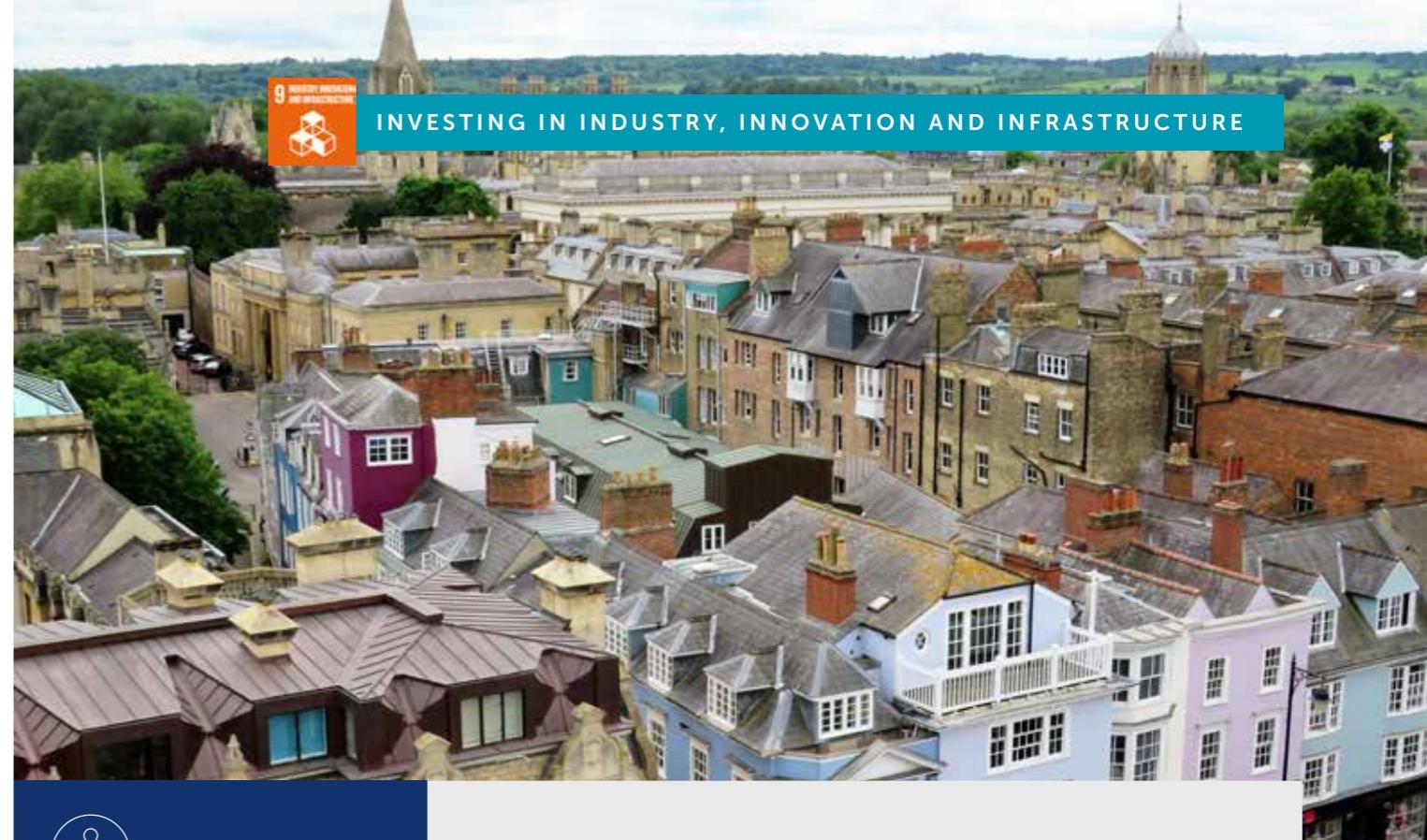


**"SSEN Distribution has a hugely important role in addressing both the economic and social recovery from coronavirus and the impending climate emergency. With COP26 on the horizon, it's never been more important to work closely with our stakeholders and power change for our customers and society."**

**Chris Burchell,**  
Managing Director,  
SSEN Distribution

### Committing to science-based carbon targets

Given the importance of SSEN's activities to the enablement of local net zero energy systems, it believes that its own business operations must be consistent with that goal. Therefore, in February 2021 and as part of its preparations for its business plan, SSEN Distribution committed to the Science Based Targets initiative that it will establish interim carbon targets across all scopes of its activities that would be in line with a carbon reduction pathway consistent with preventing global temperature rises above 1.5 degrees. The objective is to have science-based targets in place in advance of Ofgem's final determination of its business plan.



## INNOVATION IN ACTION

### Demonstrating smart grids with Project LEO

Project LEO (Local Energy Oxfordshire) is one of the most ambitious and holistic smart grid trials ever undertaken and in its first two years significant progress has been made in informing the transition to an energy system that cost-effectively supports the UK's net zero ambitions.

### Technology

Project LEO has been carrying out trials ranging from roof top solar and photovoltaic array, to hydro stations on the river Thames and behind-the-meter battery capability at the Oxford Bus Company. Storage technology is being explored through batteries and Vehicle to Grid technology, with demand side response being accessible, initially through the large building stock owned by the University of Oxford and Oxford Brookes, and the local councils. In 2020/21 over 80 low voltage monitors have been installed at

key substations to support work on new forecasting systems. These technologies are helping inform decision making and identify potential constraints on the network.

### Markets

Local electricity markets are being supported through the development of accessible and easy-to-use IT systems. These provide clear information on opportunities for energy services, addressing constraint management and energy exchange between local energy users. These systems are designed to make flexible energy markets accessible, fair, and more transparent.

### Community

2020/21 has seen the development of LEO's Smart and Fair Neighbourhood programme. Working with five different communities in Oxfordshire, LEO is co-creating locally relevant trials of different flexibility services. Project LEO is also concerned to ensure fairness for all electricity market participants.

As we progress towards net zero and a more decentralised energy system, it is important that the benefits of the energy transition are shared equitably. These trials are involving a range of energy assets including solar PV panels, wind turbines, electric vehicles, heat pumps as well as exploring the

potential power of community led energy planning.

### Period

The project was launched in March 2019 and is due to complete in March 2023.

### Benefits

Project LEO addresses the challenge of meeting Oxfordshire's ambitious emissions reduction targets for achieving net zero carbon emissions as a city by 2040. The diversity in the make up of the partnership is expanding SSEN's understanding of the complex relationship between people and the energy system.

In April 2021, Innovate UK announced that LEO's project partners have successfully demonstrated strong progress, evidenced particularly through the delivery of its detailed plans for the duration of the project and the programme of trials it will be carrying out.

### In collaboration with

LEO's project partners include the University of Oxford, Oxford Brookes University, Low Carbon Hub, Piclo, Oxford City Council, Oxfordshire County Council, EdF, Nuvve and supported by Origami.



## DECARBONISING THERMAL GENERATION FOR A NET ZERO WORLD

While providing much-needed system flexibility to ensure stability and security of supply in the short term, SSE Thermal is proactively developing options to repurpose its fleet for a net zero world.

### The role of thermal in the net zero transition

All credible pathways to net zero show that unabated thermal generation has a diminishing but important, transitional balancing role to play in ensuring security of supply whilst the UK and Ireland decarbonise. However, there is no doubt that SSE Thermal's generation fleet must be repurposed for the net zero world. SSE Thermal is undertaking its own transition to progressively reduce the carbon emissions associated with its activities.

Following the closure of its last coal-fired power station in March 2020, in 2020/21, carbon emissions from SSE's thermal electricity generation were at their lowest level since records began in 2001. SSE Thermal has committed to only build new power stations where they have a clear route to decarbonisation, and this will rely upon the right hydrogen or carbon capture and storage infrastructure being deployed near its sites.

The majority of SSE Thermal's older plant will not run into the 2030s unabated. Therefore, its focus is on carbon capture and storage (CCS) and hydrogen. See the case study page 65 for more information. Despite year-to-year variability, SSE expects to meet comfortably its absolute scope 1 and 2 emissions and carbon intensity of electricity targets by 2030 at the latest.

### Partnering on low-carbon thermal options

SSE Thermal has announced an agreement with Equinor to co-develop low-carbon thermal options at its Keadby site, in North Lincolnshire, and at its Peterhead site, in Aberdeenshire.

Both of these sites have the potential to be the UK's first power plants with carbon capture facilities, and the Keadby site could be the world's first major hydrogen-fired power station. The project will include:

- Keadby Carbon Capture and Storage: a c.900MW gas-fired power station with carbon capture
- Peterhead Carbon Capture and Storage: a c.900MW gas-fired power station with carbon capture
- Keadby Hydrogen: a 900MW low-carbon hydrogen-fired power station, with a peak demand for hydrogen of 1,800MW.

Through the early deployment of these essential technologies at our sites, we can help kick-start the wider decarbonisation of key regions across the UK, ensuring a just transition for workers and communities, and maximising the benefits of the green revolution for our industrial heartlands. See the case study for more information on SSE's partnership work on these projects.

### Developing highly efficient CCGT

SSE Thermal's Combined Cycle Gas Turbine (CCGT) fleet is among the most flexible in the UK and Ireland electricity systems. Its new highly-efficient Keadby 2 CCGT (893MW) will displace less efficient generating plant on the system. The £350m Keadby 2 will bring Siemens' first-of-a-kind, high efficiency, gas-fired generation technology to the UK and is on track to be fully commissioned in 2022. Expected to be the most efficient CCGT on the UK system, Keadby 2 will displace older, more carbon intensive generation while backing up a renewables-led system.



**"The role of thermal electricity generation is changing beyond all recognition. As we move forward, our power stations will run less, acting as back up generation for a renewables-led system. At the same time, we are committed to rapidly removing emissions from our power stations to accelerate the transition to a zero-carbon energy future."**

**Stephen Wheeler,**  
Managing Director,  
SSE Thermal

The turbine manufacturer, Siemens Energy, has confirmed that their most advanced gas turbines, like that used at Keadby 2, will be able to take up to a 50% blend of hydrogen. With access to a supply of low-carbon hydrogen, blending would be another step forward in reducing emissions from the SSE Thermal fleet and help support a nascent but important low-carbon hydrogen economy in the Humber. As part of the co-operation agreement with Equinor, SSE Thermal is also developing options to blend hydrogen at Keadby 2.



### INNOVATION IN ACTION

#### Developing opportunities in CCS and hydrogen

SSE Thermal's vision is to become the leading provider of flexible thermal energy in a net zero world. This means investing in low-carbon, flexible thermal generation using technologies like post-combustion carbon capture and storage or hydrogen-fired generation. To invest in these technologies, SSE's sites need access to carbon capture and storage (CCS) and hydrogen infrastructure, the use of which can be shared across multiple sectors to support broader decarbonisation within industrial clusters.

In March 2021, as part of Innovate UK's Industrial Strategy Challenge Fund (ISCF), the UK Government announced support for the Zero Carbon Humber and Scotland's Net Zero Infrastructure cluster projects. These two world-leading partnerships, of which SSE Thermal is a member, aim to decarbonise energy and industry in the Humber and Scotland respectively through the delivery of shared CCS and hydrogen infrastructure. Together, Zero Carbon Humber and Scotland's Net

Zero Infrastructure have secured over £100m in private and public funding to accelerate the deployment of low-carbon infrastructure.

In co-operation with Equinor, SSE Thermal is developing Keadby 3 Carbon Capture Power Station and Keadby Hydrogen Power Station in the Humber, and Peterhead Carbon Capture Power Station in Scotland, to plug into the shared CCS and hydrogen infrastructure within the clusters. In combination, these projects would capture an estimated 3 million tonnes of carbon dioxide annually, 30% of the overall target for 2030 set out in the Prime Minister's Ten Point Plan for a Green Economic Recovery, and deliver the world's first large-scale hydrogen-fired power station.

#### Period

Projects delivered under the ISCF will commence in Q1 2021 and run for up to 3 years, supporting the UK Government's ambition to bring two industrial clusters to operation by the mid-2020s and a further two by 2030.

#### Benefits

Clustering CCS and hydrogen infrastructure can reduce the costs of deployment through economies of scale, and provide a critical mass of early users to underpin investment and enable industrial decarbonisation. With the Humber region creating 40% of the UK's industrial emissions, these projects

aim to capture 25 million tonnes of carbon every year to make the Humber region into a net zero cluster by 2040. In Scotland the roll out of the low-carbon infrastructure will support investments in excess of £3bn. These projects will play a crucial role in the transition to net zero, while maximising the benefits of a green economic recovery through the creation of high quality jobs and regional investment. Not only can SSE Thermal's carbon capture and hydrogen projects complement a renewables-led system through providing flexible, dispatchable power, they can also provide an early anchor for investment in infrastructure within industrial clusters.

#### In collaboration with

Zero Carbon Humber is a consortium of twelve leading energy and industrial companies and academic institutions: Equinor (lead), National Grid Ventures, Advanced Manufacturing Research Centre, ABP, British Steel, Centrica Storage Limited, Drax Group, Mitsubishi Power, px limited, Saltend Cogeneration Company Limited and Uniper.

Scotland's Net Zero Infrastructure project is a collaboration between industry and academic partners: Pale Blue Dot (lead), University of Strathclyde, NECCUS (North East Scotland CCUS Alliance), National Grid and GBTRon Power.

# DELIVERING A JUST TRANSITION TO NET ZERO

Achieving net zero carbon emissions within the next three decades will require a global transformation of social and economic systems.



**"The prize of a fair and Just Transition to net zero is that the actions and investments to decarbonise energy systems attract long-term public support and legitimacy."**

**Alistair Phillips-Davies,**  
Chief Executive

## ESTABLISHING THE FIRST JUST TRANSITION STRATEGY

While it is well understood that global warming above 1.5°C will have serious consequences for human life in every part of the world, the transition to net zero to avoid this dangerous climate change will also have social consequences. The objective of a just transition must be to reach net zero in the fairest way possible for working people, businesses, consumers and their communities, ensuring that the benefits of climate action are shared widely whilst preventing an unfair burden of the costs on those with the least.

In November 2020, SSE published its Just Transition Strategy which outlines 20 principles to underpin the consideration of social impacts into delivering net zero. This strategy has been described as the world's first business strategy for a Just Transition. The strategy is framed into two themes: that SSE is transitioning into new, low carbon activity, while simultaneously transitioning out of high-carbon operations.

## SSE'S 20 PRINCIPLES FOR A JUST TRANSITION

TRANSITIONING INTO A NET-ZERO WORLD		TRANSITIONING OUT OF A HIGH-CARBON WORLD		
SSE'S PRINCIPLES FOR GOOD, GREEN JOBS	SSE'S PRINCIPLES FOR CONSUMER FAIRNESS	SSE'S PRINCIPLES FOR BUILDING AND OPERATING NEW ASSETS	SSE'S PRINCIPLES FOR PEOPLE IN HIGH-CARBON JOBS	SSE'S PRINCIPLES FOR SUPPORTING COMMUNITIES
1. Guarantee fair and decent work	5. Co-create with stakeholders	9. Support competitive domestic supply chains	13. Re-purpose thermal generators for a net-zero world	17. Deliver robust stakeholder consultation
2. Attract and grow talent	6. Factor-in whole-system costs and benefits	10. Set social safeguards	14. Establish and maintain trust	18. Form partnerships across sectors
3. Value employee voice	7. Make transparent, evidence-based decisions	11. Share value with communities	15. Provide forward notice of change	19. Promote further industrial development
4. Boost inclusion and diversity	8. Advocate for fairness	12. Implement responsible developer standards	16. Prioritise retraining and redeployment	20. Respect and record cultural heritage

## FOCUSING ON PRIORITY AREAS

SSE's strategy is focused on a series of principles that will underpin action to create fairness and is designed to endure through the decades of transition. It is understood that priorities for action will adapt over time however, in the short term, there are two immediate priority areas:

### Support competitive domestic supply chains (principle 9)

The ability to widely share the economic benefit of low carbon investments is a key component of delivering fairness: it means working people can access new skills and jobs which is especially important when high carbon industries are in decline. SSE Renewables has prioritised the close collaboration with supply chain partners to bring about greater investment in UK manufacturing of key components needed for offshore wind projects. Specifically, SSE Renewables has worked closely with GE in support of their plans to establish a turbine blade factory in Teesside, with the first orders needed to underpin the investment coming from Dogger Bank Wind Farm, a Joint Venture with Equinor and Eni. SSE Renewables continues to work closely with other suppliers to locate factories in the UK, including the manufacture of turbine towers in Scotland. See page 76 for information on the jobs and businesses supported so far through major offshore wind developments.

More widely, SSE's senior leadership team have taken positions within industry bodies and working groups, including the Scottish Energy Advisory Group, a supply chain review, the Offshore Wind Energy Council and the Scottish Offshore Wind Energy Council with the objective of supporting practical and actionable steps that will result in a sustainable domestic supply chain, capable of competing internationally.



The Dogger Bank O&M Base in Port of Tyne will become the heart of Dogger Bank operations. Built using environmentally friendly materials, it will serve as the main hub for operating the wind farm and will be home to over 200 employees. Development and construction of the base is subject to planning approval.

### Advocate for fairness (principle 8)

In pursuit of net zero, SSE's Distribution networks will undergo significant operational change, as it transitions towards a smart grid, capable of managing different patterns of electricity supply and demand from new sources. The emergence of dynamic local electricity markets will create opportunities for consumers to flex their demand patterns in response to price signals from suppliers. SSE Distribution is concerned to ensure that those benefits are shared widely.

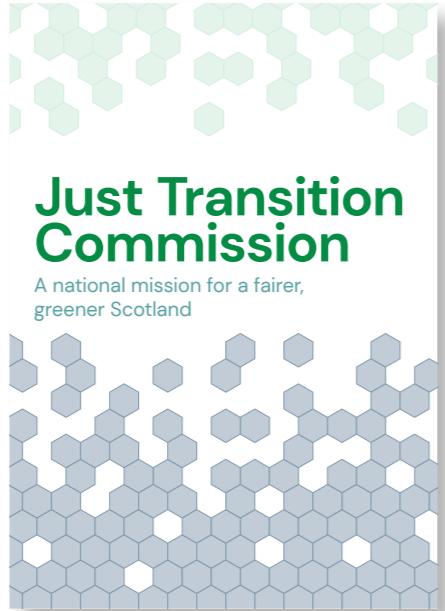
In preparation for its next price control period (2023-2028), SSE Distribution supported an important project called 'Smart and Fair' from the Centre for Sustainable Energy (CSE), the findings of which highlight a range of 'capabilities' that consumers will require in order to access the benefits of smart grids. SSE Distribution is now funding the next phase of work by the CSE that will more specifically identify the public policy actions, as well as actions from Distribution Network Operators, that will spread the benefits of flexible electricity systems widely.

## ENGAGEMENT ON THE JUST TRANSITION

The international framework on a Just Transition established by the ILO recognises the critical importance of social dialogue with respect to establishing a Just Transition for working people. SSE supports this principle and recognises the broad definition of a Just Transition incorporates fairness for consumers, communities and suppliers too. It therefore believes that continuous engagement with all its stakeholders is crucial in the months and years ahead. In 2020/21, that engagement focussed on four key stakeholder groups:

**Scotland's Just Transition Commission:** Between 2019 and 2021, SSE provided a commissioner to work alongside commissioners from industry, trade unions and environmental organisations to meet the term of reference set by Scottish Ministers. The final Just Transition Commission report was published in March 2021, with SSE supporting all recommendations.

**Investors:** With positive engagement from investors Royal London Asset



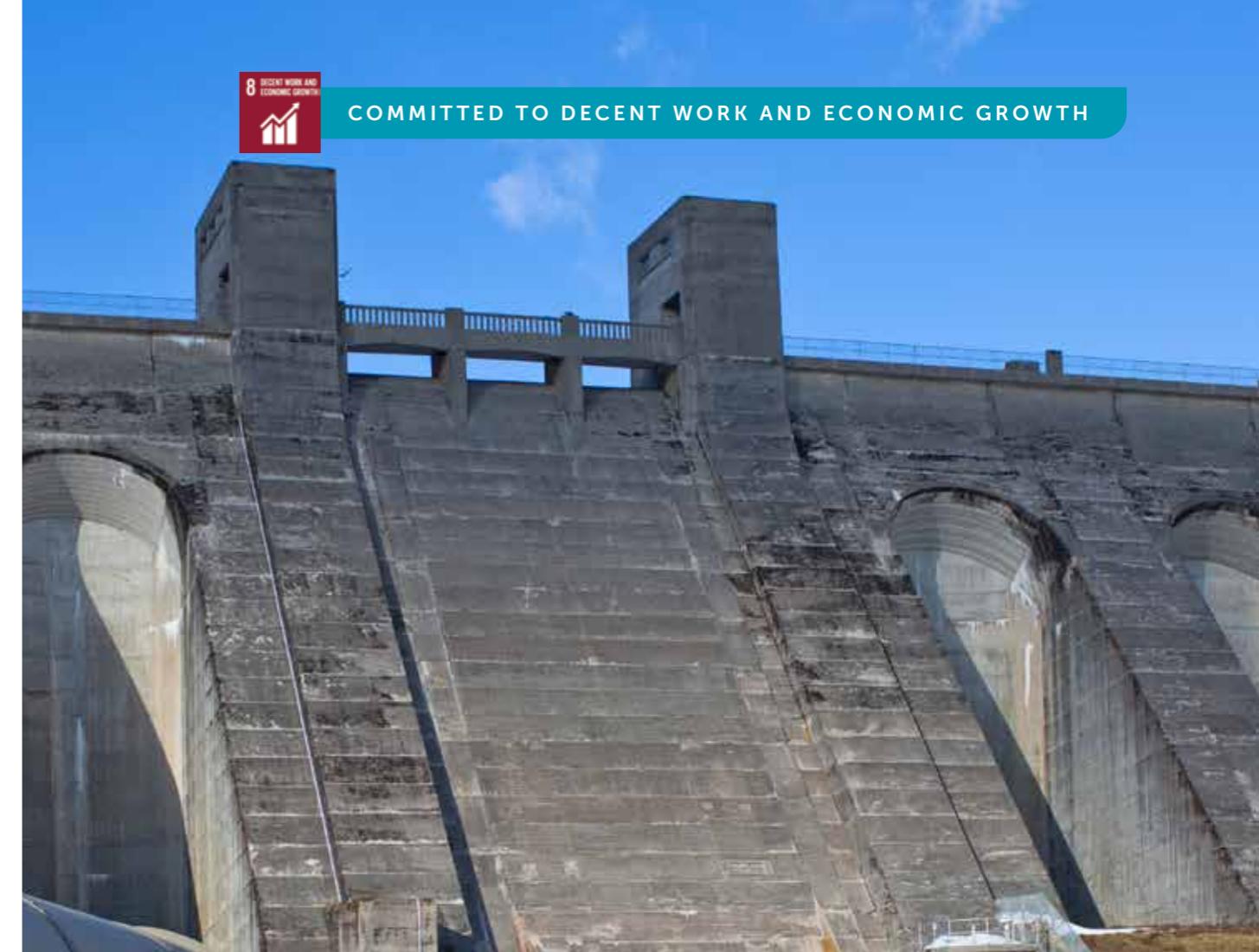
### Just Transition Commission

A national mission for a fairer, greener Scotland

Local Authority Pension Fund Forum have directly engaged with SSE on the principles and actions it is taking raising the prospect of finding common metrics from which company performance can be judged.

**Trade unions:** SSE has participated in several national and international events, alongside the TUC, STUC and iTUC outlining the importance of achieving a Just Transition. There is common ground on the importance of social dialogue through the transition to net zero and SSE's own unions, through its Joint Negotiating and Consultative Committee (JNCC), have also taken a keen interest and dialogue continues as the principles are put into action.

**Politicians:** The All-Party Group on Local Authority Pension Funds at Westminster established an inquiry into a Just Transition in early 2021. SSE gave evidence at the first session. The Inquiry expects to publish its findings before COP26 in November.



### DILEMMA

## MANAGING TRADE-OFFS FOR A JUST TRANSITION

Transitioning from high-to-low carbon activity is described as the greatest industrial transformation since the industrial revolution. The complexity of social, economic, and environmental interactions in this transformation requires thoughtful and considered action. Trade-offs must be carefully navigated to minimise social injustice and maximise social value. It is for this reason that stakeholder engagement and dialogue is so important. Three current examples of the dilemmas faced are outlined below:

**Local content versus costs to consumers:** Increased locally manufactured content within low-carbon energy supply chains is considered by many as a key determinant of a fair transition. A highly competitive global market for components has supported a dramatic reduction of the cost to consumers of generating electricity offshore – so much so, that offshore wind is now one of the cheapest forms of electricity generation. These low costs have important social value, keeping energy affordable for households and businesses. Nevertheless, SSE believes that more policy focus is needed on attracting public and private investment in UK supply chain, to bring about increased socio-economic value of manufactured components being home-grown. Recent developments such as the GE factory in Teesside is

encouraging but there is more to be done.

**Social objectives in conflict:** While SSE deliberately seeks to attract working people from a declining high carbon sector, for example, from North Sea oil and gas, it recognises that there may be a consequence on its efforts to improve the diversity of its organisation. The energy industry has traditionally very poor participation from women, and equally poor for people from minority communities. That means there is a danger that the more people attracted from oil and gas, the less likely SSE is to meet its diversity targets. SSE is conscious of this risk, and will monitor any impact on its diversity mix carefully, and seek to compensate through other recruitment strategies.

**Human rights:** Finally, there are times where it is unacceptable to manage a trade-off, and the trade-off must simply be rejected. The potential for human rights abuses in the provision of metals and minerals required for smart electricity systems, or components in electricity generation is unacceptable to SSE. SSE's objective is to maintain – and continuously improve – systems that can identify the provenance of components so it can intervene to reduce the risk of human rights abuses in its supply chain.

# COMMITTED TO DECENT WORK AND ECONOMIC GROWTH

The amount of investment required to achieve net zero is hugely significant. But it's the way these investments are made that will support decent work and economic growth and contribute to global efforts to recover from the coronavirus pandemic.

SSE has long understood that it's the people that work for it – either directly or on its behalf – that enable it to create value. It therefore has a responsibility to employ people in a way that provides them with long-term, meaningful jobs which are underpinned by fairness and respect. Beyond this, the scale of economic growth and the way value is shared with communities, businesses and wider society is influenced by governments, investors and businesses. There is a responsibility for developers and operators, like SSE, to ensure these jobs and the economic value of its projects are shared in a way that supports the public legitimacy of the transition to net zero.



## Champion Fair Tax and a real Living Wage

In addition to retaining its Fair Tax Mark and real Living Wage accreditations, over 2020/21 SSE became one of the first companies in the UK to have achieved Living Hours accreditation.



SSE also became Chair of the Living Wage Business Leadership Group in Scotland, of which it has been a member since 2014, at the end of 2020/21. The Company sits on the Living Hours Steering Group at a UK level and has taken a leading role in supporting development of a formal accreditation process for the real Living Wage in Ireland. SSE was accredited with the Fair Tax Mark for the seventh consecutive year and published its Talking Tax 2020 report, offering leading transparent disclosure of its tax approach and payment of taxes.



## Performance Summary

SDG target	KPI	Unit	2020/21	2019/20
8.1 Economic growth	Contribution to GDP (UK/Ireland) <sup>1</sup>	£bn/€m	5.2/439	5.7/650
	Jobs supported (UK/Ireland) <sup>1</sup>	Headcount	41,400/2,160	56,810/3,740
	Taxes paid (UK/Ireland)	£m/€m	379/20.4	421.6/18.1
8.2 Increased productivity	Employee productivity compared to national averages (UK/Ireland) <sup>1</sup>	Number:1	3.2:1 / 1.5:1	3.8:1/1.7:1
	Investment in learning and development <sup>2</sup>	£m	15.8	18.6
8.3 Promote development	Average training hours per FTE	Hours	9.0 <sup>3</sup>	24.9
	Total procurement expenditure	£bn	c.2.4	c.2.2
	Average time taken to pay suppliers	Days	24	29
8.5 Full, productive and inclusive employment	Investment in communities <sup>4</sup>	£m	10.6	8.2
	Employees on permanent contracts	%	95.0	95.4
	Employee retention/turnover rate <sup>5</sup>	% retention/ % turnover	92.1/7.9	88.0/12.0
	Voluntary turnover rate	%	3.6	6.5
	Lost days due to sickness	Number	66,962	181,365
	Average lost days per head	Number	5.9	9.4
	Employee engagement survey score <sup>6</sup>	%	82	76
	SSE Group (UK) median gender pay gap <sup>6</sup>	%	18.3	18.4
8.7 Eradicate modern slavery	Human rights grievances filed through formal mechanisms	Number	0	0
8.8 Labour rights	Total recordable injury rate – employees and contractors combined	Per 100,000 hours	0.15	0.16
	Employees covered by collective bargaining agreements <sup>7</sup>	%	53.9	56.0
	Speak up (whistleblowing) contacts made <sup>8</sup>	Number	66	88

Where numbers differ from Sustainability Report 2020, this is due to data being restated to exclude SSE Energy Services. See KPIs on pages 100 to 103 for more information.

1 From PwC analysis. Full report available on [sse.com/sustainability](http://sse.com/sustainability).

2 See page 103 for further details.

3 Information on this coronavirus-impacted reduction can be found on page 86.

4 See page 53 of the SSE Annual Report 2021 and page 103 of this report for further details.

5 Includes voluntary and involuntary turnover, excludes end of fixed term contracts and internal transfers.

6 Data correct as at 5 April in each year. See page 48 of SSE's Annual Report 2021 for more information.

7 This includes only collective bargaining arrangements of which SSE is aware – employees may have personal arrangements in place too.

8 Data is recorded over calendar year 2020 and 2019, rather than financial year 2019/20 and 2020/21.

## DELIVERING SOCIO-ECONOMIC VALUE

By supporting jobs, businesses and communities across the UK and Ireland, SSE adds value economic value and contributes to the public purse.

### A decade of counting SSE's economic contribution

Alongside SSE's key financial information, each year SSE publishes its economic contribution to the UK and Ireland, acknowledging that the wider value it adds through its supply chain spending and the people it employs is significantly greater than the profit it makes.

PwC has quantified SSE's economic contribution to the UK, Scotland and Ireland since 2011/12. The 2020/21 analysis showed that the Company

contributed £5.2bn to UK GDP (of which £1.5bn was contributed to Scottish GDP) and €439m to Irish GDP. This is a reduction from £5.7bn (UK) and €650m (Ireland) in 2019/20, understood to be driven in part by the coronavirus crisis, but an increase in Scotland from £1.3bn in 2019/20.

2020/21 is the 10th year of SSE measuring its economic contribution. Over the last decade, SSE has contributed more than £95bn to UK GDP, of which £17bn was contributed

to Scottish GDP, and over €8bn to Irish GDP (all in current prices). Recent years make less contribution to GDP than earlier years due to the sale of SSE Energy Services in January 2020.

With major infrastructure and investment programmes progressing over the next few years and capital expenditure and investment expected to increase in 2021/22 to around £2bn, SSE expects to continue to make a considerable contribution to UK and Irish GDP.

### UK and Irish economic contribution

#### IRELAND CONTRIBUTION TO GDP 2020/21

**€439m**

2019/20: €650m



#### IRELAND JOBS SUPPORTED 2020/21

**2,160**

2019/20: 3,740

#### IRELAND CONTRIBUTION TO GDP 2012-2021 TO END AFTER 2021

**€8bn**

#### UK CONTRIBUTION TO GDP 2020/21

**£5.2bn**

2019/20: £5.7bn

#### UK JOBS SUPPORTED 2020/21

**41,400**

2019/20: 56,810

#### UK CONTRIBUTION TO GDP 2012-2021 END AFTER 2021

**£95bn**

\*Total contribution 2012-2021 is in current prices.

## Developing sustainable supply chains

A core element of SSE's ability to deliver decent work and economic growth is supply chain activity being delivered sustainably. With over 10,000 suppliers and a £7.5bn investment program to 2025, collaborating with supply chain partners is central to achieving SSE's 2030 business goals and has been a key focus over 2020/21.

### Developing a new sustainable procurement strategy

Following an independent gap analysis carried out in early 2020 against the ISO 20400 standard for sustainable procurement by experts Action Sustainability, a three-part strategy was agreed for SSE to achieve a 'mature' sustainable procurement model:

- I. Develop and maintain a detailed analysis of sustainability risk and opportunity across SSE's procurement categories and sub-categories;
- II. Use the risk and opportunity assessment to inform questions asked of prospective suppliers at all procurement stages including the setting of appropriate contract clauses and associated KPIs; and,
- III. Integrate sustainability prominently and with clear deliverables into recruitment, job descriptions and performance review processes and develop training to support this objective.

The first two recommendations have been the focus of SSE during 2020/21. The result of these actions will be to ensure that sustainability considerations are factored into the supplier selection process, setting expectations and driving towards low carbon innovation, maximising local benefits and helping to deliver a just transition.

### The Sustainable Procurement Code

At the core of SSE's sustainable procurement strategy is its new Sustainable Procurement Code and accompanying Supplier Guidance, which were developed over 2020/21 and published in early 2021/22. These documents replace SSE's Responsible Procurement Charter and can be found on [sse.com/sustainability](http://sse.com/sustainability).

The Code sets out SSE's expectations of the companies that supply SSE with

goods and services. As well as minimum standards, the Code outlines the role of suppliers in delivering common sustainability goals, from paying a real Living Wage to helping the Company achieve net-zero carbon emissions by 2050. The Code has been designed to feed into SSE's own sustainability approach, with clear alignment to the UN's SDGs which are most material to SSE (see page 17).

### Identifying sustainability risks and opportunities

An extensive assessment of social and environmental risks and opportunities was carried out by SSE in 2020/21 across all purchasing categories. This was designed to measure risk in the supply chain against seventeen sustainability metrics defined as material to SSE. As a result, a 'heat map' identified the areas where the most material risks lie, enabling its proactive risk mitigation.

SSE is now using this data to enhance supplier engagement, apply risk based tender criteria and expand performance management of the supply chain, while also enhancing collaboration and maximising sustainability opportunities.

### Working with strategic suppliers on shared sustainability goals

SSE has an established Supplier Relationship Management (SRM)



**"It is now well understood that a company's sustainability is only as good as the sustainability of the suppliers it relies on. SSE's approach is to work in partnership with our key suppliers in the pursuit of social and environmental goals that we both share."**

**Ronnie Fleming**, Director of Procurement, Commercial and Logistics



## INNOVATION IN ACTION



During 2020/21, SSE utilised these relationships by introducing key areas of sustainability, such as modern slavery, into our current SRM sessions and held over 30 additional direct meetings with the environmental and sustainability teams within these companies. Having this enhanced engagement with suppliers has generated a greater understanding of their capabilities, journey and aims in this space, which have been taken into account when developing the new sustainable procurement model. SSE will continue to develop these relationships and engagement on sustainability topics over 2021/22.

See the Annual Report 2021 for Engagement in Action case studies on working with strategic suppliers on developing science-based carbon targets

### Creating social value in the supply chain

Recognising that the energy sector is undertaking an unprecedented transition with a need for new skills including critical thinking, complex problem solving and creativity, SSE's Procurement and Commercial (P&C) department developed a unique-to-SSE Leadership Development Programme over 2020/21.

A group of high-potential P&C employees were selected for a year-long programme, with a real-life P&C challenge to solve. They were given the challenge of 'creating social value within our supply chain', complementing the ambition to deliver a sustainable supply chain, the Group 2030 Goals and addressing the recommendations from Action Sustainability.

The outcome of the project is a proposal to work with supply chain partners on SSE's major projects to enhance the jobs and skills impact of

SSE's major project investment. The project, importantly, recognises that the quantification of such social impact is also key to demonstrating the impact to investors and stakeholders.

The immediate benefits will therefore be converted into a monetary value using the National TOMs framework, however it is understood that even wider social benefits will be created too. This includes creation of SSE and supplier partnerships at community level, engagement of the supply chain to support SSE's Sustainable Procurement Code, an increase in skillsets within the industry through training opportunities, provision of local employment opportunities, positive reputation in the market and the attraction of talent who want to work for companies that incorporate social value.

Work has begun on the process of implementation, with the next step to pilot this approach over 2021/22.

new sustainability procurement model. In particular, SSE is developing risk mitigation measures into the supply chain beyond Tier 1. This includes a new partnership with the Supply Chain Sustainability School to provide tools, eLearning training modules, on-site materials and opportunities to demonstrate leadership on targeting modern slavery risk, as well as wider business benefits across sustainability and the supply chain.

Detail on SSE's approach to mitigating modern slavery risk over 2020/21 can be found in its Modern Slavery Statement 2021 which will be published on the [sse.com](http://sse.com) homepage.

## Using offshore wind to generate UK jobs and investment

SSE is committed to supporting a sustainable, competitive domestic supply chain for its major projects, with a track record of commitment for over a decade. Within its Just Transition Strategy, the imperative to boost local and regional content of its investments is a key objective for SSE (see page 66).

Over the last 18 months, SSE Renewables has progressed with major offshore wind construction projects, Seagreen and Dogger Bank, on behalf of its JV partners<sup>1</sup>. The table below shows some of the contracts that have been awarded for these projects so far.

providing information on the skilled jobs and local businesses supported. There remain significant decisions and announcements still to be made for major components of the projects' supply chains. However, there are already over 3,400 jobs expected to be created and supported across the UK so far.

While significant progress has been made in developing local supply chains and commitments from contractors to use local businesses and labour where possible, the Offshore Wind Sector Deal commitment to increase UK lifetime content to 60% by 2030 remains a challenge. According to a study by the Offshore Renewable Energy Catapult (on behalf of BVG Associates for Department of

Energy and Climate Change), the available capacity of the existing UK supply chain is 48% UK content. Reaching 60% will require a step-change in the UK supply chain in the next decade, which will only be reached if more UK manufacturing of key components, such as turbine towers, blades and electrical cables are increased with support and strategic investment from the private and public sectors in tandem. SSE seeks to be a proactive partner of both government and its suppliers in reaching that target.

**So far, over  
3,400  
jobs created and supported**

Project	Component	Supplier	Jobs supported	Location
<b>DODGER BANK WIND FARM</b>	Manufacture of turbine blades	LM Wind Power (part of GE)	<b>750</b> direct and around <b>1,500</b> indirect jobs associated with the set-up of a new world-class blade manufacturing facility on Teesside, which will provide the Dogger Bank turbine blades.	Teesside
	Delivery of Service Operations Vessels	North Star Renewables	<b>130</b> new full-time UK-based operations jobs created in crewing and shore-based roles.	Across Scotland and North East England
	Turbine installation and commissioning	GE Renewable Energy	<b>300</b> construction jobs for installation and commissioning activities across Dogger Bank A, B and C based out of locations across north-east England to be announced in due course. These include 120 construction jobs already announced at Able Seaton Port in Hartlepool.	Hartlepool
	Ongoing operation and maintenance	GE Renewable Energy and Dogger Bank Wind Farm	<b>200</b> jobs will be based offshore and at the Port of Tyne for Operations and Maintenance of the wind farm once operational.	Port of Tyne
<b>Seagreen</b>	Onshore civil engineering work	Jones Bros Civil Engineering UK	<b>100</b> jobs, from management to apprentices and trainees, on site at the height of the works	East Riding and Teesside
	Installation of inter-array cables and foundations	Seaway 7	<b>50</b> jobs at peak activity at Seaway 7's Aberdeen office where the Engineering, Procurement, Construction and Installation (EPCI) contract will be managed.	Aberdeen
	Construction of the onshore substation	Petrofac	<b>100</b> jobs locally are expected to be supported by the construction works.	Aberdeen
	Marshalling, storage and logistics base	Global Energy Group	<b>141</b> jobs during peak construction, including work for <b>93</b> permanent roles already on-site as well as the creation of an additional <b>48</b> new roles at the port.	Port of Nigg, Tain
Wick-based Northern Marine Services (Scotland) Ltd NMS will work on-site at the Port of Nigg on behalf of Seagreen to oversee the marshalling and installation works being carried out by Global Energy Group.				
Construction of operations and maintenance base	Pert-Bruce Construction Ltd	<b>25-30</b> jobs safeguarded as a result of work on the operations building and repurposed warehouse, which will be carried out by Montrose-based Pert-Bruce and several local subcontractors. The operations building was previously used by an oil industry supply chain company in Aberdeen and will be regenerated as part of efforts to contribute to the circular economy.	Montrose	
		The contract to supply the communications mast has been awarded to Aberdeen-based PD&MS Group.		
		Harry Maiden Ltd, steel fabricators based in Montrose, will install the metal framework of the new operations and maintenance building.		
Ongoing operations and maintenance	Seagreen Windfarm Energy Ltd (SWEL) and Vestas	Up to <b>60</b> jobs will be created and located at Montrose Port. Vestas will also employ up to <b>60</b> jobs to be based on their offshore service operations vessel, which will use the port every 2-3 weeks to rotate crew, staff and replenish the offshore warehouse.	Montrose	
Manufacture of turbine blades	Vestas	Of the 114 V164 blade sets to be installed at Seagreen, 99 will be produced by Vestas domestically at their UK facilities, representing 87% of all the blades.	Newport, Isle of Wight and Fawley, Hampshire	

<sup>1</sup> Dogger Bank A and B is a joint venture between SSE Renewables (40%), Equinor (40%) and Eni (20%); Dogger Bank C is a 50:50 joint venture between Equinor and SSE Renewables. Seagreen is a joint venture between TotalEnergies (51%) and SSE Renewables (49%).



## PARTNERING IN ACTION

**Quantifying the socio-economic contribution of major projects**  
SSE understands that its stakeholders want SSE to maximise the local contribution of its major infrastructure projects and to understand the impact of these projects on local economies and jobs. The Company has therefore worked with partners to understand the economic and wider social contribution of dozens of its major infrastructure projects over the last decade.

Over 2020/21, SSE developed and published three major reports on the socio-economic benefits generated through the development, construction and operation of its new infrastructure projects. The economic analysis for each report was undertaken by BiGGAR Economics.



'Delivering Investment, Supporting Jobs' looks at the value from SSE Renewables' onshore wind projects in Sutherland in the north of Scotland (Strathy North, Achany, Gordonbush and Gordonbush Extension). The report showed that £485m will be contributed to the UK economy over these projects' life, of which the majority will be contributed to the Scottish economy, and which specifically £131m will benefit the Scottish Highlands. £23.1m of direct funding will also be available to Sutherland communities over the wind farms' lifetime with £6.9m already granted to support 591 projects in the Sutherland area. For every £1 spent on these community projects, the report showed the social return on investment is expected to be £6.16.



'Powering Progress' assesses the contribution from the Keadby 2 Power Station in North Lincolnshire, which is being contracted by Siemens Energy on behalf of SSE Thermal. Keadby 2 will be the most efficient CCGT plant in Europe once operational. The report shows that the project will contribute over £1bn to the UK economy over its lifetime, supporting 2,900 years' worth of full-time employment. £51m is expected to be contributed to the immediate local economy (out of a total £76m in the wider region of Yorkshire, the Humber and the East Midlands) during the development and construction phase, with 790 years of employment supported (out of 1,170 years regionally). Over the station's operational lifetime, it is estimated that £13m will be added to the local economy (out of £17m regionally) each year, with a total of 220 jobs (out of 290 jobs regionally) supported on an annual basis.



'Generating benefits in the Great Glen' evaluates the socio-economic contribution of four SSE Renewables projects in the Great Glen area of Scotland, where SSE has been part of the community for over 60 years. The report looks at the work of SSE Renewables in the area since 2012, when SSE Renewables re-opened its Glendoe hydro station and over the following six years built three onshore wind farms: Dunmaglass, Bhalraig and Stronelairg. Together these four projects are expected to generate over £1.2bn of value for the Scottish economy during their lifetime. Of this, £360m of value will be felt directly in the Great Glen, which will see 130 jobs supported by the projects annually during their operation. A further 250 jobs across Scotland are expected to be supported by the operation of these projects. The community funds associated with the sites, which invested £2.7m to 208 projects from 2016 to 2019, support projects from apprenticeships through to the construction of a new medical centre. Over the lifetime of the funds, the projects will bring a total of £57.2m of investment to the Great Glen and wider Highland area.



## ENGAGEMENT IN ACTION



### Helping prepare young people for work in a net zero world

In June 2021, Dogger Bank Wind Farm – a joint venture between SSE Renewables, Equinor and Eni – announced the allocation of £1m towards supporting science, technology, engineering and maths (STEM) learning for more than 25,000 young people in the North and North East of England, representing one of the largest commitments to skills ever made by the offshore wind sector.

The programme has been developed in partnership with local authorities and local skills and education stakeholders to ensure it meets local priorities. This construction fund will initially focus on early years education in East Riding of Yorkshire, where the windfarm will

connect to the National Grid, and primary to secondary school transition in South Tyneside, where the Operation and Maintenance Base will be located.

All 124 primary schools in East Riding of Yorkshire and all 18 secondary schools in South Tyneside will have the chance to increase and expand their current STEM provision, and both areas will also look to use the support to enhance their career advice services for school leavers.

In addition to enhancing STEM provision in the classroom, during the construction of the wind farm 50 students from these areas will receive a scholarship to help with the cost of further education qualifications while studying STEM subjects.

### Sharing value with communities

By working directly and closely with communities through the development, construction and operation of key assets, over many years SSE has formed constructive relationships with many people and businesses close to its infrastructure sites. These sites are key to SSE's ability to deliver its business strategy, and good community relationships are required to ensure their successful development, construction and operation.

SSE's Annual Report 2021 outlines how community liaison forms a central element of its projects (see page 52). Importantly, the coronavirus pandemic has led to finding new ways of engaging with communities, with greater use of digital platforms leading to greater inclusion of people across communities that previously struggled to attend in-person events. Of course, digital communication won't work

for everyone across the communities SSE works in, often in very remote parts of the country, and so it is expected that the future model of engagement will be a mix of in-person and digital.

SSE is also one of the largest private granters of direct community investment across the UK and Ireland. More detail is provided in SSE's Annual Report 2021 (see page 53), but over 2020/21, SSE Renewables administered £10.2m of community investment grants to finance just under 1,000 community projects across the UK and Ireland. A large proportion of which was emergency funding provided to support a community-led response to the coronavirus crisis (see case study on page 53 of the Annual Report 2021).

In addition, SSEN Distribution's Resilient Communities Fund (RCF), which helps

communities to build resilience for emergency events and protect the welfare of vulnerable community members, prioritised supporting communities' response to the coronavirus pandemic. Over £320k granted through the RCF and an additional £40k granted to Citizens Advice Scotland and Citizens Advice Hampshire to help them transition to home working and develop their capacity and resilience to deliver the increased demand for remote services.

SSE publishes detailed information on its community investment through the annual SSE Renewables Community Investment Review (found on [sserenewables.com/communities](http://sserenewables.com/communities)) and the annual SSEN Distribution Resilient Community Fund Report (found on [ssen.co.uk/RCF](http://ssen.co.uk/RCF)).

### Committed to fair tax and transparency

SSE considers being a responsible taxpayer a core element of its social contract with the societies in which it operates. It seeks to pay the right amount of tax on its profits, in the right place, at the right time, and was the first FTSE company to be awarded the independent Fair Tax Mark. It has now been accredited with the Fair Tax Mark for seven consecutive years.

SSE has an obligation to its shareholders, customers and other stakeholders to efficiently manage its total tax liability. However, SSE also has an obligation to the society in which it operates, and from which it benefits from (for example, tax receipts are vital for the public services SSE relies upon), to not seek to use the



Fair Tax

tax system in a way it was not intended to operate, for example through the use "tax havens" to reduce tax liabilities. Therefore, SSE's tax policy is to operate within both the letter and spirit of the law at all times.

Over 2020/21, SSE paid £379m and €20.4m in tax across the UK and Ireland respectively, compared to £421.6m and €18.1m in 2019/20. Taxes paid include taxes such as taxes on profits, property taxes and environmental taxes. Information on why SSE's taxes paid decreased between 2019/20 and 2020/21 can be found on page 76 of the Annual Report 2021. SSE collected £533.3m and €75.6m of tax, which includes taxes such as VAT, employment taxes and environmental taxes. This means that SSE's total tax contribution across the UK and Ireland in 2020/21 was £912.3m and

€96.0m, with a total tax contribution of just under £8.1bn in the UK over the last decade.

As well as paying its fair share, SSE is committed to openness on its tax affairs. SSE publishes its annual Talking Tax report because it believes building trust with stakeholders on issues relating to tax is important to the long-term sustainability of the business. Its latest report, 'Talking Tax 2020: Proud to pay our part', was published in November 2020. This report provides detailed disclosure of SSE's tax approach and a breakdown of taxes paid and collected over the previous year.

**SSE's UK total tax contribution is  
£8.1bn  
over the last decade**



## DILEMMA

### TAX INCENTIVES AT A TIME OF NATIONAL CRISIS

With so much public spending on coronavirus support packages, SSE recognises that good governments must seek to balance fiscal budgets over time. The coronavirus pandemic is unlike any disruption encountered as a modern society and governments have taken steps that, until recently, would have been considered unthinkable.

Protecting people from the worst economic effect of the virus was right, as was the focus to protect health services from being overwhelmed too. This has led to unprecedented spending by governments. While it is a matter for governments and the voters who elect them, there are choices as to how they raise the funds to support public spending. Taxes are primarily levied based on income, wealth and consumption, and governments have some discretion as to how the burden should be spread across those areas, and for different types of taxpayer.

The tightrope governments must take, is to generate greater tax income whilst not choking the green shoots of economic recovery.

With government business support schemes, for example, furlough and business rates relief, SSE did not need to use them through the pandemic and therefore did not. Tax incentives designed to encourage investment, however, are an important tool in governments' toolbox in building the kind of economy they want to see. As a rule, SSE favours tax incentives that create these socio-economic 'goods'; just as it favours tax interventions that ensure that social and environmental 'bads' are penalised.

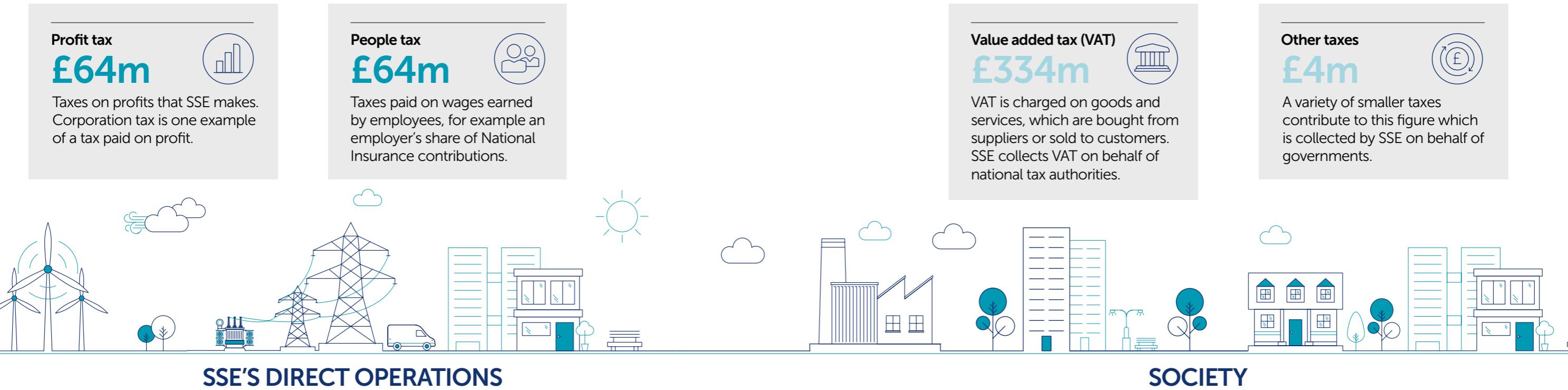
The UK tax regime currently includes a plethora of tax incentives that do not necessarily encourage investment, or provide little or no real economic benefit to the UK. Reassessing the fiscal regime in the aftermath of the coronavirus pandemic may present an ideal opportunity to address this, and to ensure that tax incentives play an appropriate role in the UK's economic recovery and growth.

While there are dilemmas for government in balancing the books, SSE will continue to play fair with tax. It will use the tax system in the way it was designed: maximizing its use of tax incentives when it is appropriate and being open about the judgements it makes.



# SSE'S TAX CONTRIBUTION 2020/21 ACROSS THE UK AND IRELAND

Taxes Paid  
**£397m** + Taxes Collected  
**£601m** = Total Tax Contribution  
**£998m**



**Environmental tax**  
**£61m**

SSE pays environmental taxes in relation to its direct operations, the main one being the Climate Change Levy which is a tax it pays on fossil fuels used to generate electricity.

**Property tax**  
**£207m**

Property taxes relate to owning or using properties and infrastructure. These include business rates paid to local councils, and taxes on transactions when properties are bought and sold.

**People tax**  
**£154m**

Taxes collected from employee wages on behalf of governments, for example income tax.

**Environmental tax**  
**£108m**

SSE collects environmental taxes from its customers on behalf of governments, including the Climate Change Levy which is an environmental tax charged on the energy that businesses use.

## SUPPORTING GOOD, GREEN JOBS

Transitioning to net zero provides opportunities, both for existing workers and new entrants. SSE remains firmly committed to providing fair and decent work, where employees are offered meaningful, long-term careers, and everyone is treated with fairness and respect. These principles underpin its long-standing responsible employer ethos, as well as its approach to employment for the future.

The importance of SSE's workforce in delivering its strategy means that SSE provides extensive disclosure each year on employee issues within its Annual Report. This is on pages 45 to 53 of the Annual Report 2021. The below employee topics are covered within the Annual Report and Sustainability Report:

- **Safety** remains SSE's first priority, with information about how SSE takes care of physical and mental health provided on pages 45 to 46 and 140 to 143 of the Annual Report.
- **Workforce demographics and information on growth** over the coming years as the business delivers its strategy to develop, build, operate and invest in low-carbon infrastructure is on page 46 of the Annual Report.
- **A healthy, ethical business culture** where anyone can speak up against wrong-doing underpins good business. See pages 47 and 112 to 113 of the Annual Report and page 83 of this report. Detailed information on SSE's approach to protecting human rights of workers can be found within its annual Modern Slavery Statement.
- **Voluntary commitments which go beyond minimum standards and leading employee benefits** help to guarantee fair work and make workers feel valued. See pages 47 and 49 of the Annual Report and 84 of this report.
- **Investing in skills and talent** is central to the Company's ability to transition to net zero. Information is provided on page 46 of the Annual Report and pages 86 to 87 of this report.
- **Listening to the employee voice and working with trade union partners** is on page 48 of the Annual Report, with further information on employee engagement on page 85 of this report.
- **Improving inclusion and diversity** across SSE's workplace and workforce is a key priority for the business, with commitment to drive progress from the most senior levels. See pages 49 to 50 of the Annual Report and pages 88 to 93 of this report.



*"Internationally, the concept of 'decent work' is well understood, defined by the International Labour Organisation and outlined in the UN's SDGs. SSE's interpretation of this notion is its long-standing responsible employer ethos which recognises that the people it employs are the source of the innovation and ingenuity required for the transition to a net zero electricity system."*

**John Stewart**, Director of Human Resources

### Doing business ethically

Good ethical conduct goes beyond the legal requirements. Doing the right thing, and doing business ethically, combines rules, standards and values to inform decisions and guide behaviour.

### Doing the right thing

SSE's 'Doing the right thing' guide to ethical business conduct brings together the Company's core principles and standards by which anyone that works for it, either directly or on its behalf, must abide. This guide was reviewed over 2019/20 and updated in 2020/21. It can be found on [sse.com/sustainability](http://sse.com/sustainability) and covers a wide range of topics, from cyber security to engagement with politicians and regulators, guarding against market abuse, supporting inclusion and diversity, and preventing corruption and financial crime. SSE also has a suite of mandatory ethics and compliance training modules which all employees are required to complete, and are in place to ensure staff fully understand their obligations in this area. More information can be found on page 47 of SSE's Annual Report 2021.



would have a negative impact on them (+6% compared to the Energy and Utilities Norm and +1% compared to the UK Norm).

Anyone that suspects wrong-doing at SSE can speak up through both internal and external channels. This includes email, letter, phone, web and telephone, with reports able to be made anonymously through SSE's externally hosted speak up channel, Safecall. Over 2020, 58 of the 66 calls made through SSE's whistleblowing channels were made through Safecall. Details for how to report wrong-doing through all of these channels is made publicly available through the 'Doing the right thing' guide.

In 2020, of the 66 reports made:

- 26% related to dishonest behaviour which includes fraud, theft, integrity, corruption and bribery;
- 35% related to HR related issues, including bullying, discrimination, racism, unfair treatment, alcohol and drugs;
- 24% related to health and safety, of which half related to coronavirus; and
- 15% related to other issues such as regulation, policy and reputation.

### Providing after-care for those that speak up

SSE takes measures so that those that speak up feel confident they are doing the right thing and know there will not be repercussions. SSE's priority is to build trust with people who speak up and ensure they are treated fairly and with respect. SSE was one of the first major companies to implement an after-care programme for those people that make contact through its speak up channels, and has been working over 2020/21 to implement this earlier in the process to increase uptake. This is designed to gain feedback and improve future processes to further support employees to speak up. In 2020, SSE issued 57 after-care surveys and received five responses which are being used to inform SSE's processes and practices.

### Institute of Business Ethics

#### Supporting people to speak up

By using the insights of experts, such as the Institute of Business Ethics of which SSE is a member, SSE aims to create an open culture where people understand why it's important to speak up and know how to raise concerns. In SSE's 2020 employee engagement survey, 82% of employees said that they would report wrong-doing without worrying that it



## PARTNERING IN ACTION



**"Without clear notice of shift patterns provided in good time, millions of workers have had to make impossible choices on childcare, transport and other important aspects of family life. Low-paid workers have been particularly hard hit during the pandemic, with millions struggling to plan their lives due to the double whammy of changing restrictions on economic activity and insufficient notice of work schedules from employers."**

**"Despite this, and the challenges many employers have faced, some have stepped up during this crisis and committed to provide workers with secure, guaranteed hours and notice of shift patterns. These are the businesses that will help us rebuild and recover, and we encourage more employers to follow their example."**

**Laura Gardiner**, Director, Living Wage Foundation



When SSE became Living Wage accredited in 2013, no other company with accreditation had such a large and complex supply chain. This experience of rolling out the Living Wage will inform SSE's approach for Living Hours as it implements this standard within its supplier contracts. Roll-out of Living Hours across SSE's supply chain will take time, so the priority is to implement these measures in contracts where there is a high proportion of lower paid workers.



With Living Hours still in its pilot phase, SSE hopes its approach can be used as a model for other companies going forward as the movement grows and will work closely with the Living Wage Foundation to share key learnings over time. Progress on the roll-out of Living Hours across SSE's supply chain will be provided within the Sustainability Report 2022.

### Living Hours: guaranteeing hours alongside the real Living Wage

In March 2021, SSE became one of the first companies in the UK to become an accredited Living Hours employer, underlining its commitment to providing workers with secure, guaranteed working hours. The Living Hours initiative requires employers to both pay the real Living Wage and commit to provide at least four weeks' notice for every shift, with guaranteed payment if shifts are cancelled within this notice period. Living Hours employers also provide a guaranteed minimum of 16 working hours every week (unless the worker requests otherwise), and a contract that accurately reflects hours worked.

As well as being Chair of the Living Wage Leadership Group in Scotland, SSE has been a member of the Living Hours Steering Group for more than two years, supporting the Living Wage Foundation to develop this new and important standard. In doing so, SSE held several joint consultation sessions with the Living Wage Foundation and its key security, cleaning and catering contract providers to look at the impact of Living Hours and how the requirements could be implemented. These sessions helped shape the final Living Hours license agreement and allowed suppliers to understand the practical implications.

Like with the Living Wage, SSE believes that the biggest impact of Living Hours will come through the changes made for those that work regularly on its sites.



## ENGAGEMENT IN ACTION

### Enabling employees to power change in the run up to COP26

As a Principal Partner for COP26, SSE has introduced a range of new initiatives to make employees feel involved in the road to Glasgow and support them to understand how they can play a role in supporting the net zero transition.

### Keeping employees informed

SSE's employees have heard directly from leaders about the purpose, vision, and value of partnering with UK Government on COP26. Delivered via Teams Live, five interactive sessions with a combined audience of around 6,500 employees have ranged from seeing SSE's Chief Executive join a Principal Partner panel to discuss their ambitions for COP26, to hearing directly from Greenpeace

Executive Director, John Sauven, on SSE's place in a greener future. The effectiveness of these sessions is measured on an ongoing basis, with employee sentiment toward COP26 being tracked monthly. In May 2021, this was a positive figure of around 90%, indicating significant employee engagement.

### Pledging to power change

SSE has worked with Do Nation, part of Count Us In, to launch the 'Pledge to Power Change'. The Pledge provides a platform for employees to commit to and record small changes in their own behaviour which helps drive climate action as a powerful collective by showing the total carbon savings across the employee population. SSE's aim is that at least one in four employees make a climate pledge and share their stories, experiences and tips with each other.

### Creating Climate Captains

More than 40 Climate Captains across the organisation are leading the Pledge to Power Change Campaign. Each Climate Captain is passionately committed to driving climate action across SSE's workforce.

### Establishing the SSE Climate Academy

The Climate Academy is being established for SSE by Action Sustainability to raise employee awareness, knowledge and understanding around climate-related issues. A series of five 1-hour long, virtual training workshops and seminars will be open to all employees and cover a range of topics which relate to climate change, including climate basics, net zero, climate adaptation, biodiversity and social impact.

### COP-tifying existing practices

SSE is giving some of its well-established practices a COP26 makeover, including SSE's volunteering programme and employee benefits such as a low-emission car scheme and reviewing the green credentials of SSE's pensions provisions.

### Supporting activities during the two weeks of COP26

While a number of employees will be volunteering during the two weeks of COP26, plans are being put in place to bring activities to SSE's larger sites to make sure everyone in SSE to feel involved and inspired by the activities taking place in Glasgow.



## INNOVATION IN ACTION

### Empowering employee innovation

The Generation Innovation initiative is led by SSE Thermal Engineering and Innovation and has been designed to promote innovative thinking and engagement whilst providing a channel for ideas to be supported and developed. All of SSE Thermal were invited to take part, generating a buzz around innovation within the business.



with a maximum payback period of three years. Therefore, not only has the initiative been a great engagement tool but has also helped SSE Thermal deliver value to the business in the near-term. A key part of the initiative is providing support and guidance for employees including business case development. A Steering group made up of a selection of senior leaders from across SSE Thermal selected the best ideas. The Engineering and Innovation teams then provide ongoing knowledge and coaching to turn the ideas into reality.

The first phase of Generation Innovation has generated close to 20 ideas and Generation Innovation spin

offs continue to create a pipeline of innovative ideas.

### Period of coverage

Generation Innovation commenced December 2019 and is still ongoing with a new spin off planned based on Digital Innovation planned for summer 2021.

### Benefits

Some of these ideas are already generating a return, with over £350,000 achieved in 2020 and forecasting £300,000 annually going forward. This includes the hot standby capability at Keadby 2 (which will be implemented once operational) and two others that relate to a Demand Turn Up service requirement from National Grid Electricity System Operator (NGESO), which SSE has provided at its multifuel and gas storage sites.

### Growing skills and talent

SSE's ability to deliver its strategy depends on employees with relevant skills, knowledge and experience. By working to agreed plans aligned with business objectives, SSE delivers technical training that keeps people current, safe and competent, and invests in wider learning and development that builds capability and is inclusive and accessible to all.

### Crisis as a driver for modernising SSE's training approach

The coronavirus pandemic created significant challenges for SSE in its ability to provide learning activities to support the maintenance and development of workforce skills. SSE had to rethink its annual learning plan to identify how best to maintain critical skills whilst maintaining the safety of its people. Safety measures meant pausing non-business critical training, condensing in-person courses, and increasing virtual and digital delivery sessions.

The increase of learning delivery through technology was a significant change for SSE, but was embraced across the business, with around 80% of training delivered online, new start inductions going digital and learning resources continuing to increase over the year. Despite the decrease in the recorded average number of training hours per full-time employee, from 24.9 hours in 2019/20 to 9.0 hours in 2020/21, SSE believes that utilising available technology and promoting more self-led learning has minimised any negative impact on training delivery over the crisis period.

Overall, the challenges faced during the coronavirus pandemic has accelerated SSE's move to modernise its approach to training for the long-term. It has increased the inclusiveness and accessibility of training available across SSE, and the range of mental health awareness, resilience, coaching and change offerings has also increased to support employee welfare and new ways of working.

### A strategic approach to skills development

SSE's approach to training, learning and development is focused on three key areas:



#### Investing in early careers



#### Sustaining key skills



#### Developing future leaders

##### Investing in early careers

As the energy sector moves towards net zero, it needs to both maintain traditional skills and capabilities, whilst developing those needed for the future. Central to this is promoting and encouraging new talent into early career positions. The value and commitment SSE has towards early careers was demonstrated by its continued significant investment during the coronavirus crisis. Over 2020/21, SSE invested £9m to support 470 people through early career programmes (2019/20: £11.1m invested to support 603 people).

**Apprenticeships:** with no minimum entry requirements, SSE is looking for people who can demonstrate the seven key strengths to be successful: Drive, Ownership, Resilience, Learning Agility, Safety, Social Adaptability and Collaboration. An SSE apprenticeship offers opportunities to develop skills and gain experience within a number of roles including; Electrical, Joiner, Fitter, Mechanical, Multi-craft and Lines.

**Trainee Engineers:** for those who meet the minimum requirements, SSE provides a unique opportunity to combine work-based learning whilst studying towards an HNC in Electrical Engineering or a Diploma of Higher Education in Engineering. Working in the business, trainees undertake work placements to put newly-learned knowledge into practice and gain practical, hands-on experience.

**Graduates:** SSE's graduate IT and Engineering placements offer practical skills with Engineering graduates also receiving relevant professional qualifications or charterships e.g. IMECE, ICE and IET. SSE's graduate opportunities across the business have one thing in common: across the two years of the programme, the graduates will gain hands-on experience, build a valuable network and develop a unique set of skills to shape their career.

**Employability programmes:** encouraging social mobility and the uptake of STEM subjects by participating in programmes specifically designed to recruit talent from communities and circumstances that otherwise might not have flowed into the energy sector. The programmes include Teach First, Barnardo's Works, SSE Works and Career Ready. While some programmes that are fully dependent on face to face work experience were paused such as Barnardos Works, other programmes such as Career Ready were taken on line to provide virtual work experiences. This had the impact of actually providing an increased number of young people with exposure to the world of work. SSE is building on its experience further by offering even more virtual work experience in the coming year.



##### Sustaining key skills

In addition to the £9m invested in early career programmes, SSE invested £6.8m over 2020/21 in sustain key skills across its workforce (2019/20: £7.5m). A total of 5,325 people received training, split between: 2,422 people who received technical skills training; 1,201 who received safety training; and 1,702 who received personal skills training.

SSE promotes an everyday learning culture, encouraging everyone to learn in the flow of work. The My Learning portal provides a variety of accessible resources which offer flexibility for learners to maintain and improve skills and knowledge for current and future roles. Over 140 new items were added to the portal over 2020/21. Themes include development of personal and management skills, health and wellbeing, safety, and ethical topics. The site also links out to learning resources incorporated into other internal SSE sites (IT, Safety, Competition Law and Anti-Trust, Inclusion & Diversity).



##### Developing future leaders

SSE is developing its pipeline of leaders who are equipped with the skills and capability to drive the organisation forward within an ever changing, complex and fast-moving context. A total of 1,035 training events were carried out over 2020/21 to support the development of future leaders. The general and specific development needs for leaders across the business units are addressed by providing a suite of core and tailored offerings. Providing suitable offerings to meet the needs of leaders through the stages of their career is also taken into consideration with the People Management Programme (PMP) and Inclusive Leadership Development Programmes (ILDP) targeting those new to leadership roles, whilst the Career Development Programme (CDP) is aimed at senior talent development.

Attendees through 2020/21, 252 PMP, 95 ILDP and 35 CDP. The core offerings supports the development of managers throughout their careers by providing training on how to lead themselves, teams and the business in an inclusive way. SSE continues to build leadership talent that will support the growth of the business as it focuses on delivering a net zero future and takes on the challenges of an increasingly competitive marketplace. The business benefits include: broader thinking leaders at all levels; evidence of different considerations in projects and change plans; and more collaboration across teams and businesses.

Tailored leadership offerings include the Procurement & Commercial and the Networks Leadership Development Programmes, with 12 and 151 attendees respectively through 2020/21. The programmes are designed to provide learning opportunities within the context of the operational activities of the respective business area, with a combination of theory and practical activities designed to stretch participants as they practice and develop their skills. The business benefits include; increased staff engagement; improved communication, collaboration and learning across the teams, encouraging creativity and the generation of ideas to improve working practices; exploitation of shared efficiencies and business improvement opportunities; and the identification of talent to aid succession planning.

All development programmes are supported by facilitated Action Learning Sets where participants support and challenge each other's perspectives, building self-awareness, self-management, developing coaching skills and the skill of appreciating difference and diversity of thought.



**SSE's gender pay gap**

SSE is committed to providing open and detailed information about its gender pay gap. In 2016 SSE became the first FTSE company to publicly disclose this information. 2021 is SSE's sixth year of reporting its UK gender pay gap, and for the first time SSE is voluntarily disclosing its gender pay gap in Ireland to increase transparency across the business and drive positive change.

SSE is also encouraging employees to volunteer their ethnicity and other diversity data, and aspires to report on its ethnicity pay gap when it has enough data to do this meaningfully.

**Reporting SSE's UK 2021 gender pay and bonus gaps**

At 5 April 2021, the SSE Group (UK) had a mean gender pay gap of 16.5% (2020: 17.1%) and a median gender pay gap of 18.3% (2020: 18.4%). While both the mean and median gender pay gap are the lowest since SSE began reporting in 2016, there is clearly more work to be done to close the pay gap.

SSE reports against 11 individual legal entities in the UK, as well as the overall UK figures. Mixed progress can be seen year-on-year, though the majority of legal entities improved both their mean and median gender pay gap between 2020 and 2021.

Just over a third (33.5%) of men working for SSE in the UK on 5 April 2021 were eligible to a bonus (2020: 35.2%), compared to 28.3% of women (2020: 24.0%). SSE's median bonus gap has reduced to 14.5% compared to 15.1% in 2020, however despite the proportion of women receiving a bonus increasing, the mean bonus gap has increased from 40.2% in 2020 to 45.0% in 2021.

Bonus applies to a sub-set of employees and by its nature will fluctuate year-on-year subject to corporate, business and personal performance. The main annual incentive arrangement accounts for around 60% of the total value of the bonus. A smaller and more senior population also participate in one or two of SSE's three longer term share arrangements which account for a further 25% of the overall value.

Gender parity can only be achieved if women make up an even proportion of roles at all levels in the organisation. With the nature of some of the roles SSE has, it will take time and a consistent and ongoing effort to achieve gender parity. At 5 April 2021, 26% of SSE's UK workforce of 11,443 people were women (2020: 25%). Seven out of the 11 legal entities increased their proportion of women employees between 2020 and 2021, albeit slightly. There remains challenges to increasing gender diversity within technical roles during a period of fairly rapid business expansion.

SSE understands that improving gender balance in each quartile is essential to achieving gender parity. It is possible for a company to have a low gender pay gap, but poor female representation across its business. Across all quartiles the proportion of women employed by SSE in the UK has increased, however progress remains slow. SSE is continuing to implement the IN, ON, UP strategy with a focus on improving female representation at all levels in its business.

The full breakdown of 2021 gender pay gap data for UK statutory reporting can be found on page 104.

**SSE GROUP (UK) 2021 GENDER PAY AND BONUS GAP STATISTICS****Median Gender Pay Gap:****18.3%**

2020: 18.4%

**Mean Gender Pay Gap:****16.5%**

2020: 17.1%

**Workforce Gender Balance:****74% male**

2020: 75%

**26% female**

2020: 25%

**Proportion of men receiving a bonus:****33.5% male**

2020: 35.2%

**Proportion of women receiving a bonus:****28.3% female**

2020: 24.0%

**Median Bonus Gender Pay Gap:****14.5%**

2020: 15.1%

**Mean Bonus Gender Pay Gap:****45.0%**

2020: 40.2%

**Understanding and acting on SSE's gender pay gap**

SSE has determined two core reasons for its gender pay gap:

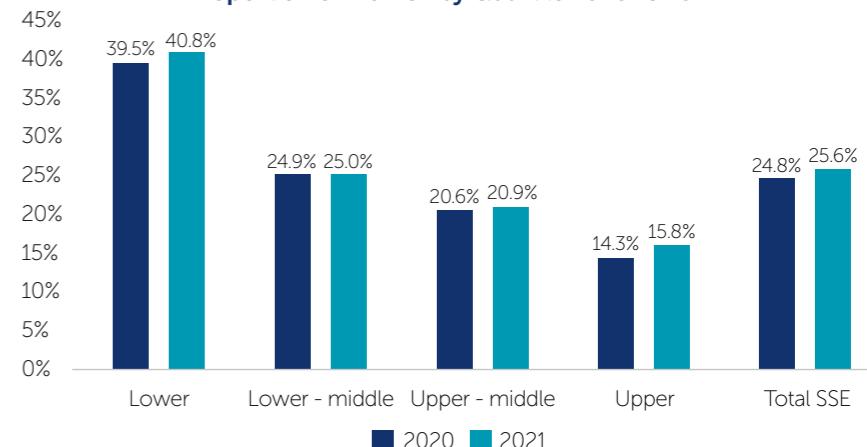
1. Low representation of women in senior and highly paid technical positions
2. Fewer women than men applying for roles across all levels of the business

Ensuring women at lower levels stay on and progress up within SSE, and that more women join the company at every level, but particularly at senior levels, are therefore key elements of SSE's action plan to close its gender pay gap. SSE has been progressing its 'IN, ON, UP' inclusion strategy, which is focused on bringing more diversity 'IN' to the company, encouraging these people to stay 'ON', and supporting them to progress 'UP' to the most senior levels. This approach (see pages 91 to 93) is designed to support SSE's efforts to increase gender diversity across its workforce and reduce its gender pay gap.

**1 Increasing representation of women in senior and technical positions**

At SSE, the average tenure of male employees is 13 years and female employees is 8 years. Long tenures are a testament to SSE's employee engagement and satisfaction; this means that for senior positions that become available either through growth or attrition, we focus on widening the gate to attract diverse applications that enable us to make progress.

In 2021, 3.6% of the top operational roles in SSE are held by women. While this is still very low, it is an increase from 1.4% in 2016 (roles include: apprenticeship, craftsperson, electrician, engineer, joiner, linesperson, meter reader, operative, technician)<sup>1</sup>. SSE has

**Proportion of women by Quartile 2020 vs 2021**

a number of initiatives to increase women in senior and technical roles, such as the STEM Returners programme which recruits individuals back into the industry following a career break (for example to raise children), and leadership management programmes to help women advance within the business (see page 93 for more details).

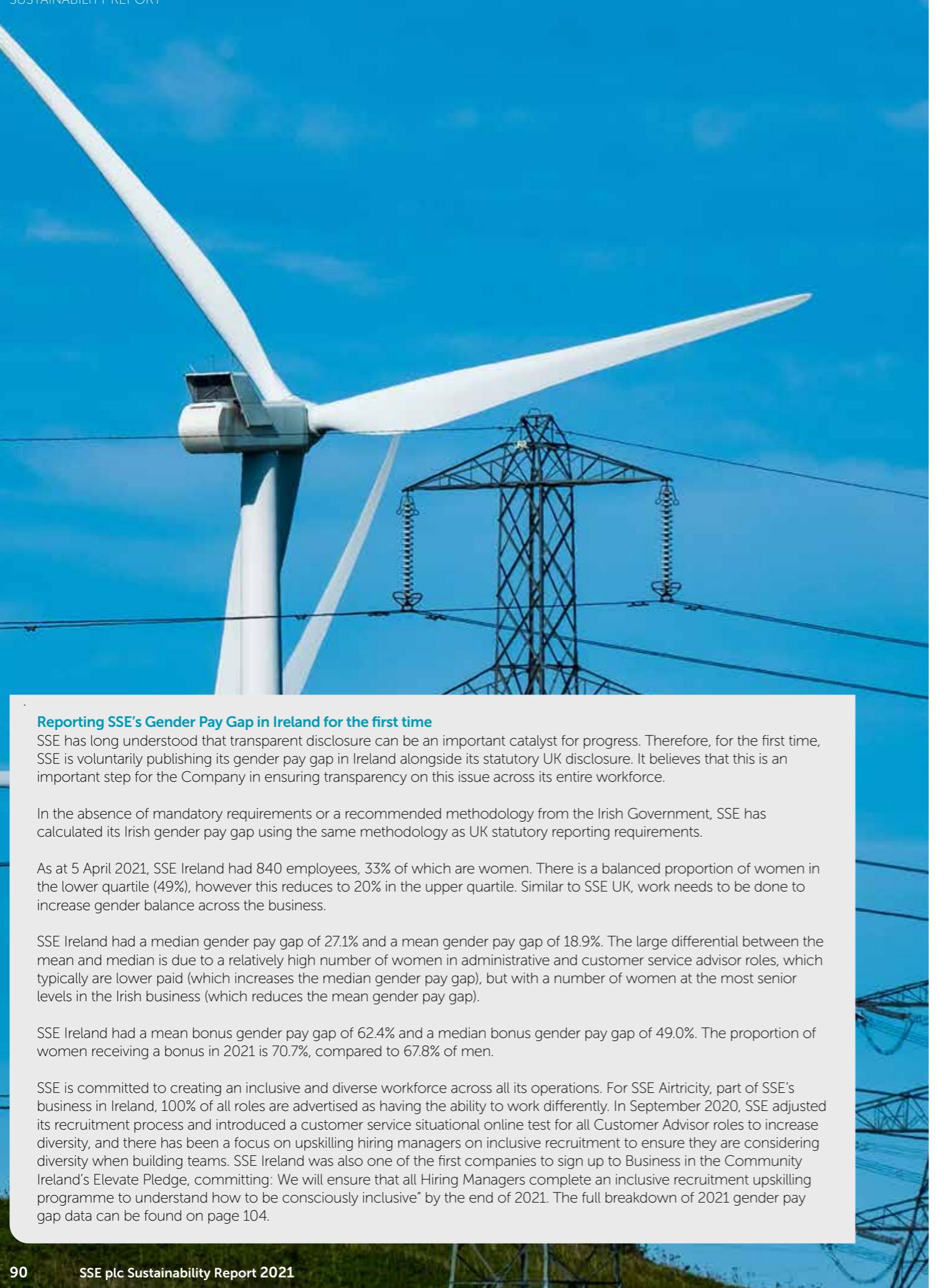
**2 Increasing the proportion of women applying for roles across all levels of the business**

The gender split of all external hires, from the application stage to the hiring stage, is tracked and reviewed quarterly by SSE. On average SSE receives a lower proportion of women applying for available roles across all levels of the business. In 2021, of those who shared their data, women made up 26% of applications and 33% of hires for external roles.

Low application numbers are in part due to women being less likely to progress from STEM education into the energy sector. 2019/20 data from WISE (Women into Science and Engineering) shows women make up 29% of those who have a core STEM qualification, and this drops

Data included within this section follows the UK Government methodology and shows results at a UK and Ireland level. A full breakdown by legal entity is included on page 104.

<sup>1</sup> 2016 data included Energy services which has now been sold  
2 Wise Annual Core Stem Stats Round Up 2019/20.



#### Reporting SSE's Gender Pay Gap in Ireland for the first time

SSE has long understood that transparent disclosure can be an important catalyst for progress. Therefore, for the first time, SSE is voluntarily publishing its gender pay gap in Ireland alongside its statutory UK disclosure. It believes that this is an important step for the Company in ensuring transparency on this issue across its entire workforce.

In the absence of mandatory requirements or a recommended methodology from the Irish Government, SSE has calculated its Irish gender pay gap using the same methodology as UK statutory reporting requirements.

As at 5 April 2021, SSE Ireland had 840 employees, 33% of which are women. There is a balanced proportion of women in the lower quartile (49%), however this reduces to 20% in the upper quartile. Similar to SSE UK, work needs to be done to increase gender balance across the business.

SSE Ireland had a median gender pay gap of 27.1% and a mean gender pay gap of 18.9%. The large differential between the mean and median is due to a relatively high number of women in administrative and customer service advisor roles, which typically are lower paid (which increases the median gender pay gap), but with a number of women at the most senior levels in the Irish business (which reduces the mean gender pay gap).

SSE Ireland had a mean bonus gender pay gap of 62.4% and a median bonus gender pay gap of 49.0%. The proportion of women receiving a bonus in 2021 is 70.7%, compared to 67.8% of men.

SSE is committed to creating an inclusive and diverse workforce across all its operations. For SSE Airtricity, part of SSE's business in Ireland, 100% of all roles are advertised as having the ability to work differently. In September 2020, SSE adjusted its recruitment process and introduced a customer service situational online test for all Customer Advisor roles to increase diversity, and there has been a focus on upskilling hiring managers on inclusive recruitment to ensure they are considering diversity when building teams. SSE Ireland was also one of the first companies to sign up to Business in the Community Ireland's Elevate Pledge, committing: We will ensure that all Hiring Managers complete an inclusive recruitment upskilling programme to understand how to be consciously inclusive\* by the end of 2021. The full breakdown of 2021 gender pay gap data can be found on page 104.

## IN, ON, UP: SSE'S INCLUSION AND DIVERSITY STRATEGY

SSE's IN, ON, UP strategy has been created to improve the diversity of people in its organisation, to close its gender pay gap, and to bring about a more inclusive organisation. The strategy is focused on bringing diverse talent 'IN' to the company, encouraging them to stay 'ON', and supporting them to progress 'UP' to the most senior levels. This approach has meant strong building blocks have been put in place around education and inclusive processes. While progress has been steady, it is slower than the SSE senior team want it to be. SSE's Group Executive Committee and Board are committed to increasing focus and pace.

### IN: Attracting and recruiting diverse talent

#### Implementing inclusive hiring practices

SSE has made significant changes to its recruitment processes in order to ensure it reaches talented people from all possible backgrounds. Some examples of the changes include: gender bias language reviews of all job adverts; inclusive hiring training for all hiring managers; open advertising of roles (78% of all roles in 2020/21); and flexible working offered in job adverts (89% of all roles in 2020/21); and advertising roles on diverse platforms like Diversity Jobs, Disability Jobs and Ethnic Jobs. In September 2020, SSE adjusted its recruitment process and introduced a customer service situational online test for all Customer Advisor roles after identifying that 81% of ethnic minority applicants were being rejected at first screening stage. This has increased the conversion rate from application to hire for diverse candidates from 30% applications to 4.5% hire rate in 2019/20 to 22.5% application to 9% hire rate in 2020/21. These changes have led to 22 females, 158 ethnic minority and 47 disabled candidates being hired\*.

#### Supporting diverse talent pipelines

SSE has a number of early career programmes, including apprenticeships, technical skills trainee programmes and graduate programmes (see page 86). To ensure SSE are recruiting from a diverse talent pool, SSE now uses Strengths-Based Recruitment for apprenticeship hires. This allows SSE to assess candidates on the basis of potential, skills and capability to carry out the role, rather than on past experiences and education privileges. In 2021, 18% of apprenticeships and 39% of graduate placements were awarded to women.

### Promoting social inclusion

SSE has been a signatory to the Social Mobility Pledge since 2019. In October 2020, SSE launched the 'Social Mobility and Opportunity For All In A Time Of Crisis' report which was produced by the Social Mobility Pledge. It details how SSE is working to reduce the opportunity gap in the UK and Ireland through its existing social mobility initiatives and is committed to further action in the wake of the coronavirus crisis.

SSE's dedicated social mobility programmes detailed within the report includes, amongst others: the Career Ready mentoring programme; the Barnardo's Works employability programme; and the SSE Works employability programme. Due to the coronavirus pandemic, the Barnardo's works programme didn't run over 2020/21 but is due to begin again in 2021/22 with the additional creation of a programme in Reading for the first time. Conversely the Career Ready programme did run virtually and successfully with the highest number of participants to date.

#### Offering a Young Person's Guarantee

In November 2020, SSE became one of the first adopters to the Young Person's Guarantee in Scotland. As part of this, SSE committed to extending its work-based learning opportunities by asking hiring managers to consider the numerous Modern Apprenticeship frameworks available, not just the traditionally recognised technical and craft ones.

#### Extending the STEM Returners programme

In 2020, SSE launched a pilot STEM Returners programme to support people who have taken a career break to return to the sector. The programme, which

particularly helped women returning to work following a career break to raise children, involves a 12-week placement to help restart careers, specifically in engineering, and provides the chance to secure a full-time position. In 2020/21 SSE's STEM returner programmes recruited 5 female returners, and subsequently converted all five into permanent roles.

#### School outreach to increase STEM uptake

Many of the barriers to accessing opportunities begin in the classroom of schools. There are fewer examples of this being true than with gender and STEM subjects, with significant gender differences, historically, in take-up of some GCSE and A-Level STEM subjects. Progress is being made here nationwide, with girls taking STEM subjects up 1.5% in 2019, and 43% of STEM A-levels being awarded to girls in 2019 (up from 37% in 2017). However, only 26% of STEM graduates were women in 2019 demonstrating a drop in engagement with these subjects for higher education.

SSE's Board approved resource dedicated to school outreach and encouraging more school pupils into STEM vocations. SSE has now created and started delivery of a STEM Education Outreach Strategy. Over 2020/21, the Company worked with external education partners My Kinda Future to create curriculum aligned content aimed at four key learner stages. SSE has started to establish strategic partnerships with 11 secondary schools in 25 priority locations across the UK and Ireland. The schools are selected based on school premium (number of free school meals), low attainment levels, high diversity, and those schools who have no existing employer/student relationship.

## ON: Creating an inclusive workplace

### Offering flexible working

Equality in the workplace is aided by offering the flexibility to manage work and home responsibilities as required for each individual. This is especially important for women, who are usually the primary carer for families. Increasing flexibility allows employees to continue working at SSE as their life changes, which in the long-term will improve gender parity across all levels of the organisation.

Prior to the coronavirus outbreak, SSE had rolled out flexible working across the organisation with 61% of people able to 'work differently' in 2019, compared to just 10% in 2015. In the 2020 employee engagement survey, 72% of employees

said they could 'work differently' and this increased to 78% in the most recent "Ways of Working" employee survey in April 2021. 'Happy to talk flexible working' was promoted on 89% of job adverts in 2021 (2020: 77%). SSE will continue to offer agile working arrangements when employees return to offices.

### Support for working parents

In the UK SSE offers 21 weeks' maternity leave at full-pay (26 weeks in Ireland), and a gradual return to work policy which offers those returning to work 80% of their contractual hours whilst receiving full pay and benefits for up to six months. This has led to a significant reduction in women not returning to SSE after maternity leave, from 17% 2017 to 6% in 2021.



## Working together to change the sector and wider society

Meaningful partnerships which use the insights, advice and experience of experts is core to SSE's approach to promoting inclusion and diversity. IN, ON and UP is reinforced by SSE's efforts to work collaboratively with other organisations and share best practice with peers. Some of SSE's key partnerships are shown below, with further detail provided on [sse.com/sustainability/partnerships](http://sse.com/sustainability/partnerships).

In response to the coronavirus pandemic, SSE introduced new Guidance for Employees with Caring Responsibilities. This included an additional entitlement to 10 days' paid leave for all employees affected by disruption to care arrangements as a result of coronavirus. It also allows employees and managers to agree temporary flexible working arrangements such as split shifts, spreading contractual hours across a longer reference period and bringing forward annual leave to allow more paid time off when most needed.

### Employee-led communities

In September 2020, a number of new Employee-led Communities were formed. This was prompted by the lived experiences of those from diverse racial and ethnic backgrounds, highlighted globally by the death of George Floyd and the increased awareness of the Black Lives Matter movement. In addition, employees highlighted the need for peer to peer support platforms as they managed a variety of challenges caused by the coronavirus pandemic, from the cancellation of in-person PRIDE events, to the need to balance home education and care responsibilities with working from home.

SSE worked with employees to design the best way to offer support for all. This included leadership blogs with senior leaders sharing their thoughts and experiences around inclusion and difference. The suite of new employee-led communities, branded as "Belonging in SSE", included: Black people and ethnic minorities; LGBTQ+; Taking care of ourselves and each other; Armed forces; Menopause; and Working parents. The shared aims of these communities are to bring people together, access the latest thinking, support each other, and to educate each other. The leads of the employee-led communities meet monthly and help create the Group I&D engagement calendar of events content.



## UP: Diverse representation at the highest levels

### Targeting diverse senior recruits

The percentage of women applying for and being offered senior roles in SSE has increased since 2018/19: from 10% female applications to 17% in 2020/21; and from 6% female offer rates to 18% in the same timeframe. The ethnic diversity of all hires (based on those that have disclosed data) has increased from 4% in 2014/15 to 10% in 2020/21.

SSE has been more demanding on diverse interview panels and offering more diverse shortlists by sending over the 'next best' candidates if diversity was lacking in the longlists. In addition, SSE has been more considered throughout the process by spending more time upfront to be clear on the needs for each senior role to ensure we are advertising the role with a clear ask. This is more engaging but also more appealing to a wider audience.

Promoting employees from within is a core

element of SSE's responsible employer ethos as well as a key strand of its IN, ON, UP approach. In 2021 the proportion of promotions filled by women was 21.7%. Women accounted for 26% of external experienced hires and 15% of external executive hires.

### Developing diverse future leaders

Diverse representation amongst management training programmes and leadership coaching sessions has continued to be a focus over 2020/21. Female representation on SSE's 2021 Inclusive Leadership Development Programme, an emerging talent development programme, was 26%. The proportion of women on SSE's Career Development Programme, a programme for senior talent development, was 29% in 2021.

### Mixed progress on senior-level gender targets

SSE has four targets focused on driving greater gender balance at its most senior levels (the SSE plc Board; the Group

Executive Committee and direct reports (excl. admin employees); the Group Executive Committee, its sub-committees and Business Unit Executive Committees; and roles at £70,000 (indexed to 1/4/17 or above). Progress against these targets is detailed in full on page 49 and 50 of SSE's Annual Report 2021.

### Focus from the most senior levels

In 2021 SSE welcomed a new Chairman, John Manzoni, who has outlined that improving diversity across the organisation, and particularly at senior management level, is a key priority. SSE's Group Executive Committee now hold monthly meetings to discuss capability, succession, and inclusion and diversity. SSE's goal is to be inclusive in all activities and has discussed ongoing development and education to support SSE's leaders to be more confident.

A quarterly focus on progress is provided through review of internal inclusion and diversity scorecards and targets, in addition to business unit scorecards which are reviewed twice yearly.



## IDENTIFYING MATERIAL RISKS

# DATA AND PERFORMANCE

SSE is committed to transparent and open reporting of current and historic non-financial data.

This section provides detailed disclosure of SSE's sustainability data, as well as an update on performance in key sustainability initiative and ratings. For transparency, two years' worth of environmental, social and economic data has been provided against each indicator where possible. In January 2020, SSE sold its Energy Services business to OVO Energy Ltd and therefore SSE Energy Services data has been removed from 2019/20 data. In a very few instances it has not been possible to split SSE Energy Services data out of 2019/20 data and where this is the case it has been clearly marked.

<b>Sustainability-linked Executive remuneration</b>	<b>pages 96</b>
<b>Sustainability data sets</b>	
o Environmental data	pages 98
o Economic data	pages 100
o Social data	pages 102
o SSE's Gender Pay Gap (UK and Ireland)	pages 104
o SASB disclosure alignment	pages 106
<b>Green Bond reporting</b>	<b>page 108</b>
<b>ESG ratings and indices performance</b>	<b>page 109</b>



## DATA AND PERFORMANCE

## SUSTAINABILITY- LINKED EXECUTIVE REMUNERATION

The Annual Incentive Plan (AIP) for SSE's Executive Directors is evaluated against several sustainability measures, including progress made each year against the company's 2030 Goals. The below table summarises the performance outcome for 2020/21 for the 'Stakeholders' and 'Contribution to the UN Sustainable Development Goals' measures, which are some of the non-financial performance measures included in the AIP. Further detail, including the weightings for each of the detailed measures outlined below, can be found within the Remuneration Committee Report on page 152 of SSE's Annual Report 2021.

High-level measure	Detailed measure	Factors to be assessed	Summary performance	Outcome
Contribution to the UN Sustainable Development Goals (20% of total AIP)	<b>Climate action:</b> Take urgent action to combat climate change and its impacts	Reduce the carbon intensity of electricity generated by 60% by 2030, compared to 2018 levels, to around 120gCO <sub>2</sub> e/kWh.	Carbon intensity of electricity generated decreased by 11% compared to the previous year and was the lowest since SSE's records began. No coal output following closure of last coal-powered station in March 2020. Keadby 3 progressing through planning as part of Zero Carbon Humber. Progress in development of Peterhead CCUS.	80% Exceeded expectation
	<b>Affordable and clean energy:</b> Affordable, reliable and sustainable energy for all Industry, innovation and	Develop and build by 2030 more renewable energy to contribute renewable output of 30TWh a year.	SSE's renewable generation output decreased over the year due to poor weather conditions across wind and hydro. However, excellent progress was made over the year to develop and construct the assets which will enable SSE to meet its 2030 Goal.	85% Far exceeded expectation
	<b>Industry, innovation and infrastructure:</b> Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	Build electricity network flexibility and infrastructure that helps accommodate 10 million electric vehicles in GB by 2030.	Project LEO and a partnership between Government and network owners in Scotland represent two of the most significant projects in the UK that will help accelerate transport electrification. RIIO-ED2 business plan is nearing completion, which will inform the investment needed in ED2 and beyond to meet the net zero decarbonisation goal. Launched a new low emission company car scheme to deliver a focus on the benefits of low emission cars.	85% Far exceeded expectation
	<b>Decent work and economic growth:</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Be the leading company in the UK and Ireland championing Fair Tax and a real Living Wage.	SSE achieved ongoing accreditation of both the Fair Tax Mark and the Living Wage, supporting both campaigns to attract more companies to become accredited. Furthermore, SSE published its Talking Tax reports offering transparent disclosure of its tax approach. SSE has become one of the first companies to gain Living Hours accreditation.	90% Far exceeded expectation
Stakeholders (15% of total AIP)	<b>Customers</b>	<b>Business Energy</b> – A range of measures including customer complaints and satisfaction. Gateway for threshold performance at median performance of Citizens Advice league table.	Rank 3 against 17 business energy providers by Citizens Advice.	93% Far exceeded expectation
		<b>Electricity Networks</b> – A range of measures including customer interruptions and customer minutes lost.	Improved performance on previous year across a range of metrics as other DNOs have improved too. There is tight clustering in the league tables where a single percentage point can be the difference between below median and first. The out-turn reflects particularly strong performance in the North and in the Connections business.	40% Met expectation
	<b>Employees</b>	<b>Safety</b> – Total Recordable Injury Rate (TRIR) and Accident Frequency Rate (AFR) for direct employees. TRIR target of <0.15.	TRIR at 0.15 reduced compared with last year and AFR has been maintained at the same low level as 2019/20. Significantly more 'safe days' than previous year.	95% Far exceeded expectation
		<b>Engagement</b> – A range of measures including employee engagement survey score, employee uptake of share plans and retention rate. Board and leadership engagement with employees.	Significantly increased employee engagement score relative to previous year and against external benchmarks. A programme of employee engagement activity has been delivered.	95% Far exceeded expectation
		<b>Inclusion and diversity</b> – progress made closing SSE's median UK gender pay gap and progress made against SSE's Inclusion Strategy including progress on Return on Inclusion.	Improved Return on Inclusion with 'champion' status reached. Decreased gender pay gap. Employee Difference groups established.	85% Far exceeded expectation
	<b>Suppliers</b>	<b>Safety</b> – Total Recordable Injury Rate (TRIR) and Accident Frequency Rate (AFR) for contractors.	12-month rolling combined TRIR and AFR remained similar to the previous year. The number of contractors injured (30) in 2021/22 was significantly fewer than the 35 injured in 2019/20. In a challenging year the contractor safety performance exceeded expectations.	92% Far exceeded expectation

## DATA AND PERFORMANCE

## ENVIRONMENTAL DATA

Metric	Unit	2020/21	2019/20	SDG target	GRI Standard
<b>Carbon Performance</b>					
Scope 1 emissions <sup>1</sup>	MtCO <sub>2</sub> e	7.10 <sup>(A)</sup>	8.26 <sup>(B)</sup>	13.2	305-1
Generation	MtCO <sub>2</sub> e	7.06	8.21	13.2	305-1
Other scope 1	MtCO <sub>2</sub> e	0.04	0.05	13.2	305-1
Scope 2 emissions <sup>2</sup>	MtCO <sub>2</sub> e	0.54 <sup>(A)</sup>	0.64 <sup>*</sup>	13.2	305-2
Distribution electricity network losses	MtCO <sub>2</sub> e	0.47	0.55	13.2	305-2
Other scope 2	MtCO <sub>2</sub> e	0.06	0.10	13.2	305-2
Scope 3 emissions <sup>3</sup>	MtCO <sub>2</sub> e	3.39 <sup>(A)</sup>	3.59 <sup>*</sup>	13.2	305-3
Raw fuels purchased	MtCO <sub>2</sub> e	0.92	0.80	13.2	305-3
Gas sold	MtCO <sub>2</sub> e	2.35	2.69	13.2	305-3
Transmission electricity network losses	MtCO <sub>2</sub> e	0.11	0.10	13.2	305-3
Fuel used in third party vessels	MtCO <sub>2</sub> e	0.00			305-3
Other Scope 3	MtCO <sub>2</sub> e	0.00	0.02	13.2	305-3
Total carbon emissions <sup>4</sup>	MtCO <sub>2</sub> e	11.03 <sup>(A)</sup>	12.49 <sup>*</sup>	13.2	305-3
Carbon intensity of electricity generation	gCO <sub>2</sub> e per kWh	255 <sup>(A)</sup>	288 <sup>(B)</sup>	13.2	305-4
Proportion of SSE's top 50% of suppliers by spend with science based targets <sup>5</sup>	%	29	4	13.2	
<b>Environmental Management</b>					
Number of major incidents	Number	0	0	14.1, 15.1	307-1
Number of serious incidents	Number	11	12	14.1, 15.1	307-1
Number of minor incidents	Number	33	41	14.1, 15.1	307-1
Environmental prosecutions and civil penalties	Number	1	0	14.1, 15.1	307-1
Permit/Licence breach	Number	4	10	14.1, 15.1	
<b>Emissions to air</b>					
SO <sub>2</sub> - thermal generation <sup>6</sup>	Tonnes	1,372	2,464	94, 12.4	305-7
NO <sub>x</sub> - thermal generation <sup>7</sup>	Tonnes	4,103	6,080	94, 12.4	305-7
SF <sub>6</sub> - thermal generation, transmission and distribution activities	kg	295	318	94, 12.4	305-7
<b>Energy consumption</b>					
Purchased heat from non-renewable sources	GWh	3.74	3.59	12.2	302-1
Purchased electricity from renewable sources	GWh	90.36	97.60	12.2	302-1
Purchased electricity from non-renewable sources	GWh	140.43	233	12.2	302-1
<b>Water consumption</b>					
Total water abstracted	Million m <sup>3</sup>	26,030 <sup>(A)</sup>	27,757 <sup>(B)</sup>	12.2	303-3
Total water consumed	Million m <sup>3</sup>	3.6 <sup>(A)</sup>	6.9 <sup>(B)</sup>	12.2	303-5
Total water returned	Million m <sup>3</sup>	26,027 <sup>(A)</sup>	27,751 <sup>(B)</sup>	12.2	303-4
Total water abstracted and returned - hydro	Million m <sup>3</sup>	25,200	27,036	12.2	303-3
Total water consumed - buildings	Million m <sup>3</sup>	0.024 <sup>(A)</sup>	0.046 <sup>(B)</sup>	12.2	303-5
Total water abstracted - thermal	Million m <sup>3</sup>	830	721.6	12.2	303-3
Total water consumed - thermal	Million m <sup>3</sup>	3.51	6.3	12.2	303-5
Total water returned - thermal	Million m <sup>3</sup>	826.5	715.3	12.2	303-3
<b>Waste</b>					
Total waste produced <sup>8</sup>	Tonnes	2,321.2	-	12.5	
Proportion of total waste <sup>8</sup> :	%				
Sent to landfill	%	9	-	12.5	
Processed as energy from waste	%	55	-	12.5	
Recycled	%	31	-	12.5	
Composted/sent to anaerobic digestion	%	4	-	12.5	
Treated	%	1	-	12.5	
Hazardous waste <sup>8</sup>	Tonnes	54.9	-	12.5	
<b>Business travel</b>					
Fuel used in operational plant and vehicles	Litres	7,587,002 <sup>(A)</sup>	10,435,527 <sup>(B)</sup>	12.2	302-1
Flights - distance travelled	km	361,325 <sup>(A)</sup>	11,988,081 <sup>(B)</sup>	12.2	
Train - distance travelled	km	239,364 <sup>(A)</sup>	6,663,009 <sup>(B)</sup>	12.2	
Company cars - distance travelled	km	10,707,386 <sup>(A)</sup>	33,995,795 <sup>(B)</sup>	12.2	
<b>Climate adaption and resilience</b>					
Overhead line replacement and refurbishment <sup>9</sup>	£m	30.7	24.6	13.1	
Tree cutting conducted by SSEN Distribution <sup>9</sup>	£m	26.6	29.6	13.1	
Flood protection conducted by SSEN Distribution <sup>9</sup>	£m	3.3	6.4	13.1	

(A) This data was subject to external independent assurance by PwC in 2021. For the limited assurance opinion see sse.com/sustainability.

2 Scope 2 emissions are indirect emissions from the generation of purchased electricity, heating and cooling consumed by an organisation. For full detail on emission sources included in scope 2, see SSE's GHG and Water reporting criteria at sse.com/sustainability.

\* In 2020/21, additional data points and minor amendments to methodologies has resulted in some 2019/20 figures being restated. For PwC's limited assurance opinion see sse.com/sustainability.

1 Scope 1 emissions are direct emission from sources owned or controlled by an organisation. For full detail on emission sources included in scope 1, see SSE's GHG and Water reporting criteria at sse.com/sustainability.

3 Scope 3 emissions are other indirect emissions that are generated outside of an organisation in support of its activities. For full detail on emission sources included in scope 3, see SSE's GHG and Water reporting criteria at sse.com/sustainability.

4 GHG emissions from SGN's activities are excluded (SGN reports these separately).

GHG emissions from other Joint Ventures are also excluded. For full detail on emission sources included in reporting, see SSE's GHG and Water reporting criteria at sse.com/sustainability.

5 SSE's supplier target, which is part of its science based carbon targets, is calculated from a 2019/20 baseline.

6 Data for Ireland covers the periods between 1 January and 31 December and GB covers the periods between 1 April and 31 March.

7 Due to changes in methodologies in data collection in SSE's electricity transmission and distribution businesses, 2019/20 data has been restated. Detail of how data is collected can be found in SSE's GHG and Water reporting criteria, available at sse.com/sustainability.

8 Excludes waste data from contractors for large capital projects, minor works contracts and some specialised waste streams. SSE undertook work to create a waste data baseline for 2020/21, therefore 2019/20 data is not available.

9 2020/21 data may be subject to minor adjustment before final inclusion in the regulatory reporting pack published to Ofgem in August 2021. Some 2019/20 data has been slightly revised after finalisation of data for the August 2020 Ofgem regulatory reporting pack.

## DATA AND PERFORMANCE

## ECONOMIC DATA

Metric	Unit	2020/21	2019/20	SDG target	GRI Standard
<b>Taxation</b>					
Adjusted current tax charge	£m	107.8	114.2 <sup>^</sup>	8.1	201-1
Adjusted underlying current tax rate	%	10.1	11.2 <sup>^</sup>	8.1	
Payment of UK corporation tax <sup>1</sup>	£m	63.9	78.4 <sup>^</sup>	8.1	201-1
Total taxes paid in UK <sup>1</sup>	£m	379	421.6 <sup>^</sup>	8.1	201-1
Payment of Irish corporation tax <sup>1</sup>	€m	0.07	0.01	8.1	201-1
Total taxes paid in Ireland <sup>1</sup>	€m	20.4	18.1	8.1	201-1
<b>Investment and supply chains</b>					
Total investment and capital expenditure (adjusted), before refunds	£m	912.0	1,358	9.1	201-1
SSE Renewables investment and capital expenditure (adjusted) <sup>2</sup>	£m	294.3	342.7	9.1	203-1
Thermal generation and gas storage investment and capital expenditure (adjusted)	£m	108.4	177.2	9.1	203-1
SSEN Distribution investment and capital expenditure (adjusted)	£m	350.8	364.9		
SSEN Transmission investment and capital expenditure (adjusted)	£m	435.2	329.0	9.1	203-1
Total procurement spend	£bn	c 2.4	c 2.2	8.3	102-9
Average time taken to pay suppliers	Days	24	29		
Invoices paid within 30 days/ 31-60 days/ 60 days	%	87/10/6	74/21/4		
Invoices not paid within agreed payment period	%	37	45		
<b>Innovation and research</b>					
Spend on research and innovation <sup>3</sup>	£m	12.0	-		
Employees working in research and development roles (full-time equivalent) <sup>3</sup>	Headcount	42.5	-		
<b>Economic contribution</b>					
Total economic contribution - UK GDP <sup>4</sup>	£bn	5.21	5.72	8.1	201-1
Total economic contribution - Scotland GDP <sup>4</sup>	£m	1,485	1,339	8.1	201-1
Total economic contribution - Ireland GDP <sup>4</sup>	€m	439	650	8.1	201-1
Total jobs supported - UK <sup>5</sup>	Number	41,400	56,810	8.1	203-2
Total jobs supported – Ireland <sup>5</sup>	Number	2,160	3,740	8.1	203-2
Total jobs supported - Scotland <sup>5</sup>	Number	8,400	7,390	8.1	203-2
<b>Networks operations</b>					
Networks customers on Priority Services Register (PSR)	Number	770,844	746,821	7.1	203-1
Customer minutes lost - SHEPD/SEPD	Average per customer	57/44	56/46	7.1	203-1
Customer interruptions - SHEPD/SEPD	Per 100 customers	64/48	63/47	7.1	
Regulated Asset Value - Transmission, Distribution and SSE's share in SGN	£m	9,372	9,106	9.1	
Cumulative total of renewable generation capacity connected to SSE's electricity transmission network	GW	6.7	6.3	9.1	
SSEN Distribution's supply points with communicable and smart capability <sup>6</sup>	Number (% of reported customer numbers)	902,703 (23%)	333,546 (9%)		
<b>Customer solutions</b>					
Business Energy Electricity Sold	GWh	13,070	16,914	7.3	
Business Energy Gas Sold	mtherms	245	272	7.3	
Meter Point Administration Numbers (MPANs) supplied with SSE Green 100% renewable energy <sup>7</sup>	Number	62,742	49,080	7.3	
Business Energy smart meter operating volumes (gas and electricity)	Number	160,970	157,409	7.3	
Energy customers' accounts (Business Energy sites)	Million	0.48	0.52	7.3	
All Ireland energy market customers	Million	0.68	0.72	7.3	
Energy saved as a result of energy efficiency measures targeted to fuel poor households in Ireland	Million kWh	5.8	5.8	7.3	
<b>Diversity of electricity generation portfolio</b>					
Total renewable generation output <sup>8</sup>	GWh	9,649	10,753	7.2	
Total renewable generation output including GB constrained off wind <sup>8</sup>	GWh	10,242	11,442	7.2	
Total non-renewable generation output	GWh	18,045	17,761	7.1	
Total generation output (all plant)	GWh	27,694	28,514	7.1	
Renewable generation - proportion of total output	%	34.8	37.7	7.2	
Total renewable generation capacity	MW	3,897	3,992	7.2	
Total non-renewable generation capacity	MW	5,303	9,356	7.1	
Total electricity generation capacity	MW	9,200	9,338	7.1	
Renewable generation - proportion of total capacity	%	42.4	42.7	7.2	
Total renewable generation capacity in construction and operation <sup>9</sup>	GW	5.8	4.0	7.2	

<sup>^</sup> Data includes SSE Energy Services which was sold to OVO Ltd in January 2020.<sup>1</sup> Figures represent tax actually paid during the financial year, not tax charges which are reported in SSE's Annual Report 2021 (see section 10. Taxation on pages 212 to 215).<sup>2</sup> Before project finance development expenditure refunds.<sup>3</sup> Over 2020/21, SSE undertook a strategic review of its work on investment in research and innovation. 2019/20 data was not collated but instead a baseline of 2020/21 data has been created against which to benchmark future years' investment.<sup>4</sup> Total direct, indirect and induced Gross Value Added, from PwC analysis.<sup>5</sup> Measured as headcount, from analysis undertaken by PwC.<sup>6</sup> Calculated using the number of smart meters connected to SSEN's distribution network which are communicable by SSEN as a proportion of SSEN Distribution's reported customer numbers.<sup>7</sup> Individual companies may have more than one MPAN so figures are not representative of customer numbers.<sup>8</sup> Totals include pumped storage and biomass output and are based on 100% of wholly owned sites and SSE's share of joint ventures.<sup>9</sup> Includes pumped storage and biomass.

## DATA AND PERFORMANCE

## SOCIAL DATA

Metric	Unit	2020/21	2019/20	SDG target	GRI Standard
<b>Safety</b>					
Accident Frequency Rate - employees and contractors combined	Per 100,000 hours	0.09	0.09	8.8	403-9
Accident Frequency Rate - employees/contractors	Per 100,000 hours	0.04/0.21	0.04/0.20	8.8	403-9
Total Recordable Injury Rate - employees and contractors combined	Per 100,000 hours	0.15	0.16	8.8	403-9
Total Recordable Injury Rate - employees/contractors	Per 100,000 hours	0.07/0.35	0.09/0.33	8.8	403-9
Safe days <sup>1</sup>	Number	271	247	8.8	403-9
Fatal incidents - employees/contractors	Number	0/0	0/0	8.8	403-10
Accountable RTC Class 1 and RTC Class 2 (Potential for serious harm to people and the environment)	Rate per million miles	1.65	1.45	8.8	403-9
<b>Workforce composition</b>					
Total SSE employees (headcount) <sup>2</sup>	Number	12,489	12,133	8.5	102-7
Total headcount - UK/Ireland	Number	11,630/859	11,309/824	8.5	102-7
External recruitment (headcount)	Number	1,529	1,428	8.5	
Contingent Labour Force Size <sup>3</sup>	Number (% of total headcount)	1,950 (15.6)	2,335 (19.2)	8.5	102-8
Average age of employees <sup>4</sup>	Years	42.3	42.1	8.5	405-1
Mean/median length of service	Years	10.7/7.7	11.1/8.4	8.5	
Median employee earnings <sup>5</sup>	£	42,295	40,908	8.5	
Employees that say they can "work differently" <sup>6</sup>	%	72	61	8.5	
<b>Gender balance</b>					
Proportion of employees that are female	%	264	25.1	5.5	405-1
Median gender pay gap (UK/Ire)	%	18.3/27.1	18.4/-	5.1, 8.5	405-2
Board of Directors <sup>7</sup>	Male/female headcount (% female)	7/4 (36)	7/3 (30)	5.5	405-1
Group Executive Committee <sup>8</sup>	Male/female headcount (% female)	6/2 (25)	7/2 (22)	5.5	405-1
Group Executive Committee and Direct Reports to the Executive Committee (excluding administrative roles)	Male/female headcount (% female)	39/13 (25)	48/12 (20)	5.5	405-1
Group Executive Committee, its sub-committees and Business Unit Executive Committees <sup>9</sup>	Male/female headcount (% female)	67/26 (28)	62/23 (27)	5.5	405-1
Roles at £70,000 (indexed to 01/04/17) or above	Male/female headcount (% female)	518/100 (16)	524/108 (17)	5.5	
Male/female employees earning over £40,000	%	44/30	43/29	5.5	
Employees that have voluntarily provided I&D data on Harmony	%	18.5	16.5	8.5	403-9
<b>Workforce stability and wellbeing</b>					
Total number of hours worked <sup>10</sup>	Number	23,577,621.6	22,906,549	8.5	401-1
Employees on permanent/temporary/non-guaranteed or short hour contracts	%	95/4.5/0.5	954/4.1/0.5	8.5	102-8
Employee retention and turnover rate <sup>11</sup>	% retention/% turnover	92.1/7.9	88.0/12.0	8.5	401-1
Regrettable or voluntary turnover rate <sup>12</sup>	% (% of total turnover)	3.6 (45.7)	6.5 (54.5)	8.5	403-2
Proportion leavers - female	%	20.7	22.8		
Lost days per year due to sickness	Number	66,962	110,604	8.5	401-1
Average number of lost days per head	Number	5.9	9.4		
Employees covered by the Joint Agreement	%	46.9	47.8	8.8	102-38
Employees covered by collective bargaining agreements	%	53.9	56.0	8.8	
Employees participating in one of SSE's pension schemes	%	95.9	90.2		
Ratio of CEO earnings to average employee earnings <sup>13</sup>	Number:1	71:1	59:1	8.5	102-41
Employee productivity - direct contribution to GDP per capita (UK) <sup>14</sup>	£	211,025	236,410	8.2	
"Employee productivity compared to national averages – UK" <sup>14</sup>	Number:1	3.2:1	3.8:1	8.2	
"Employee productivity compared to national averages – Scotland" <sup>14</sup>	Number:1	3.8:1	4.5:1	8.2	
"Employee productivity compared to national averages - Ireland" <sup>14</sup>	Number:1	1.5:1	1.7:1	8.2	
Total external recruitment	Number	1,529	1,428		
Proportion external recruitment - female	%	32.0	28.3		
Total internal recruitment	Number	698	1,046		
Proportion internal recruitment - female	%	32	36.9		
Proportion of total recruitment that is internal	%	31.3	42.3		

Metric	Unit	2020/21	2019/20	SDG target	GRI Standard
<b>Employee skills and capabilities</b>					
Learning and development expenditure <sup>15</sup>	£m	6.8	7.5	8.2, 8.5	404-2
Investment in pipeline programmes <sup>16</sup>	£m	9	11.1	8.2	404-2
Proportion of employee wage expenses devoted to training	%	0.5	1.2		
Proportion of employees having received training over the year <sup>17</sup>	%	39.7	65.4		
Average training hours per full-time equivalent employee	Number	9.0	24.9	8.2	404-2
Number of training days	Number	14,586	35,163		
Number of training hours	Number	94,807	210,979		
<b>Employee engagement</b>					
Employee engagement survey participation <sup>18</sup>	%	82	76	8.5	
Employee engagement survey result	% engagement index	82	76	8.5	
Employees participating in the share incentive (UK/Ire)	%	73/66	77/38	8.5	
Employees participating in the sharesave plan (UK/Ire)	%	46/21	24/16	8.5	
<b>Business ethics</b>					
Speak up (whistleblowing) contacts made	Number	66	88	8.8	
Formal grievances raised	Number	57	66	8.8	102-17
Formal disciplinary procedures instigated	Number	81	87	8.8	
Human rights grievances filed through formal mechanisms	Number	0	0	8.7	102-17
Material or regulatory reportable incidents caused by cyber security breach of SSE systems	Number	0	0		
<b>Community</b>					
Employee days donated to charity <sup>19</sup>	Number	0	1817	8.3	
Employees involved in community volunteering	%	0	9.0	8.3	
Value of employee days donated to charity <sup>19</sup>	£'000	0	248	8.3	
Community investments funds	£m	10.4	7.95	8.3	
Investment in communities <sup>20</sup>	£m	10.6	8.2	8.3	

<sup>1</sup> Data includes SSE Energy Services which was sold to OVO Ltd in January 2020.<sup>2</sup> SSE defines a 'safe day' as a day when no injury, environmental breach, serious road traffic accident or high-potential incident occurs.<sup>3</sup> Headcount as at 31 March in each financial year. Figure includes all SSE UK and ROI employees, excludes contingent/agency staff.<sup>4</sup> A contingent worker describes external personnel where the business determines that it cannot fulfil the requirement internally. A contingent worker can be a Consultant, Contractor or Temporary Agency Worker.<sup>5</sup> Based on average of all ages at 31 March in each financial year.<sup>6</sup> See page 158 of SSE's Annual Report 2021 for further details.<sup>7</sup> "Working differently" includes agile work arrangements such as compressed hours, job sharing and flexible start and end times. Results are from SSE's annual employee engagement survey.<sup>8</sup> See page 121 of the Annual Report 2021.<sup>9</sup> In the context of gender reporting, the Group Executive Committee (GEC) includes all members of the GEC and the Company Secretary.<sup>10</sup> Figures for all committees includes the relevant Committee Secretary.<sup>11</sup> Based on standard contractual hours over a 52-week period (excludes Overtime and Standby).<sup>12</sup> Includes voluntary and involuntary turnover, excludes end of fixed term contracts and internal transfers.<sup>13</sup> Based on turnover reason of 'Regretted' as at 31 March of each financial year.<sup>14</sup> See page 158 of SSE's Annual Report 2021 for further details.<sup>15</sup> From PwC analysis.<sup>16</sup> Total internal and external learning and development expenditure excluding pipeline programme investment.<sup>17</sup> Total cost of apprentice, graduate and Technical Skills Trainee programmes, including salary costs.<sup>18</sup> Results from SSE's annual employee engagement survey.<sup>19</sup> Due to coronavirus SSE's official 'Be the Difference' employee volunteering programme was temporarily suspended in 2020/21. Where possible, SSE is accommodating requests for employees to volunteer under the UK Government Emergency Volunteering Leave Scheme, offering one week (five days or pro rata 5 equivalent) of full-pay for employees who are volunteering. This activity has not been captured through the Be the Difference employee volunteering database.<sup>20</sup> Total across UK and Ireland, including: charitable donations through matched funding, Community Investment Funds, Resilient Communities Fund and financial value of employee volunteering.

## DATA AND PERFORMANCE

## GENDER PAY GAP (UK AND IRELAND)

The below data shows SSE's gender pay gap for all eligible legal entities under the UK Government's gender pay gap reporting requirements, as well as voluntarily publication of its gender pay gap data for its Irish business. In the absence of mandatory requirements or a recommended methodology from the Irish Government, SSE has calculated its Irish gender pay gap using the same methodology as UK statutory reporting requirements. Data is correct as at 5 April 2021.

SSE Business Entity with 250 or more employees	SSE Contracting Ltd	Southern Electric Power Distribution plc	SSE Services plc	SSE Generation Ltd	Scottish Hydro Electric Power Distribution plc	SSE Energy Supply Ltd	Scottish and Southern Energy Power Distribution Ltd	SSE Telecommunications Ltd	Scottish Hydro Electric Transmission plc	SSE Renewables Holdings (UK) Ltd	TESGL Ltd	Overall SSE Group (UK)	SSE Ireland (SSE Renewables Holdings Ltd)
Number of relevant employees in entity	1,817	2,041	1,779	382	1,147	838	515	542	534	738	279	<b>11,443</b>	840
Proportion of male and female employees in business entity (M%/F%)	86.3 / 13.7	78.7 / 21.3	54.0 / 46.0	86.4 / 13.6	77.1 / 22.9	52.0 / 48.0	96.9 / 3.1	72.5 / 27.5	78.8 / 21.2	81.4 / 18.6	79.6 / 20.4	<b>74.4 / 25.6</b>	67.1 / 32.9
Mean hourly pay difference between male and female employees (%)	22.9	16.2	24.2	29.3	8.3	25.0	14.7	20.3	22.5	13.4	32.8	<b>16.5</b>	18.9
Median hourly pay difference between male and female employees (%)	21.6	16.9	24.1	35.5	14.3	5.1	19.7	26.8	24.4	17.7	43.6	<b>18.3</b>	27.1
Proportion of men/women in lower quartile pay band (M%/F%)	71.0 / 29.0	62.0 / 38.0	36.9 / 63.1	62.5 / 37.5	64.5 / 35.5	47.9 / 52.1	91.5 / 8.5	52.9 / 47.1	53.0 / 47.0	76.2 / 23.8	40.0 / 60.0	<b>59.2 / 40.8</b>	51.0 / 49.0
Proportion of men/women in lower middle quartile pay band (M%/F%)	87.7 / 12.3	79.8 / 20.2	49.4 / 50.6	89.5 / 10.5	76.7 / 23.3	48.1 / 51.9	98.4 / 1.6	72.5 / 27.5	84.2 / 15.8	78.3 / 21.7	91.4 / 8.6	<b>75.0 / 25.0</b>	64.5 / 35.5
Proportion of men/women in upper middle quartile pay band (M%/F%)	92.5 / 7.5	84.7 / 15.3	56.1 / 43.9	97.9 / 2.1	82.9 / 17.1	46.4 / 53.6	98.4 / 1.6	78.8 / 21.2	86.5 / 13.5	83.2 / 16.8	97.1 / 2.9	<b>79.1 / 20.9</b>	73.2 / 26.8
Proportion of men/ women in upper quartile pay band (M%/F%)	94.1 / 5.9	88.4 / 11.6	73.7 / 26.3	95.8 / 4.2	84.3 / 15.7	65.7 / 34.3	99.2 / 0.8	86.0 / 14.0	91.8 / 8.2	88.1 / 11.9	90.0 / 10.0	<b>84.2 / 15.8</b>	80.0 / 20.0
Mean difference in bonus payment between male and female employees (%)	51.5%	39.9%	61.6%	41.2%	62.9%	86.9%	85.1%	27.8%	57.4%	27.1%	4.6%	<b>45.0%</b>	62.4%
Median difference in bonus payment between male and female employees (%)	8.3%	7.6%	28.4%	37.8%	27.6%	25.5%	58.0%	27.3%	4.5%	9.5%	30.0%	<b>14.5%</b>	49.0%
Proportion of men/women receiving bonus pay (M%/F%)	30.6 / 11.1	7.6 / 4.2	38.1 / 32.7	73.7 / 71.2	9.6 / 11.9	45.6 / 30.9	4.0 / 12.5	79.5 / 74.8	30.3 / 29.3	82.3 / 73.8	47.3 / 24.6	<b>33.5 / 28.3</b>	67.8 / 70.7

## DATA AND PERFORMANCE

### SASB DISCLOSURE ALIGNMENT

SSE has for the first time mapped its disclosures to the Sustainability Accounting Standards Board (SASB) Electric utilities and power Generators standard, outlined in the table below. SASB Standards guide the disclosure of financially material sustainability information by companies to their investors, using industry-specific standards.

**Table 1. Sustainability Disclosure Topics and Accounting Metric**

Code	Accounting metric	SSE disclosure
IF-EU-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	SSE's generation activities in the UK are subject to the UK ETS and the carbon price Support and in Ireland they are subject to the EU ETS (see page 22). SSE is required to report its GHG emissions and energy consumption in the UK through the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 and the Streamlined Energy and Carbon Reporting (SECR) requirements. Information disclosed on page 98 of this report, alongside pages 38 to 43 of SSE's Annual Report 2021 represent SSE's disclosure against these requirements.
IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries	As of January 2020, SSE Energy Services, the retail division of the SSE Group, was sold to OVO Energy. This ended the direct supply of electricity from SSE to household customers in Great Britain. Scottish and Southern Electricity Networks (SSEN) maintain responsibility for the distribution of electricity across central southern England and the north of Scotland, as well as the electricity transmission network in the north of Scotland. Details of the emissions associated with the losses within our networks are disclosed on page 98.
IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Two of SSE's science-based carbon targets cover SSE's scope 1 GHG emissions. Discussion on trends and progress against these targets can be found on page 23.
IF-EU-110a.4	(1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market	SSE's customer facing businesses only serve customers in the GB market and the island of Ireland Single Electricity Market. Both these energy markets have mature carbon reduction and renewable support frameworks. In Ireland, there are government targets on particular forms of renewable energy (for example, 5GW of offshore wind by 2030) and, in the UK, renewable targets support statutory carbon budgets. Neither market has standards that mean electricity generators must secure a proportion of their portfolio of energy generation from renewable sources.
IF-EU-120a.1	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) particulate matter (PM10), (4) lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population	SSE discloses NOx and SOx emissions on page 98 of this report. Data from other air emissions is reported to the environmental regulator and, while this information can be accessed through a request to the regulator, SSE is working to disclose it more readily to its stakeholders in future.
IF-EU-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	SSE depends on water in various ways across its operations, from use in electricity generation to an amenity in its buildings. SSE provides information on its water management approach and its operations in relation to water stressed areas on page 39, alongside a detailed breakdown of water use data on page 98.
IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	In 2020/21, SSE had three minor permit breaches in relation to water quantity and/or quality permits. Immediate action to rectify the non-compliance was undertaken and the environmental regulator notified in each case. Investigations were completed following these events and actions taken to prevent reoccurrence.
IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	Detailed description of the strategies and practices SSE has in place to mitigate water management risks is provided in SSE's CDP Water Programme response, which is publicly available on its website at <a href="http://sse.com/sustainability">sse.com/sustainability</a> .
IF-EU-150a.1	Amount of coal combustion residuals (CCR) generated, percentage recycled	N/A - SSE closed its last remaining coal-fired power plant in March 2020.
IF-EU-150a.2	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	N/A - SSE closed its last remaining coal-fired power plant in March 2020.
IF-EU-240a.1	Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers	More information will be available in 2021/22
IF-EU-240a.2	Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month	More information will be available in 2021/22
IF-EU-240a.3	Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days	More information will be available in 2021/22
IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	More information will be available in 2021/22
IF-EU-320a.1	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)	See page 102 of this report for SSE's safety performance, as well as pages 142 to 143 of SSE's Annual Report 2021.
IF-EU-420a.1	Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM)	Not applicable in the UK and Irish electricity systems.
IF-EU-420a.2	Percentage of electric load served by smart grid technology	With the smart meter roll out continuing in Great Britain, there are now 902,703 smart meters connected to SSEN Distribution's network that can 'communicate' to SSEN's system. This means that 23% of all SSEN's supply points have communicable and smart capability*.
IF-EU-420a.3	Customer electricity savings from efficiency measures, by market	See page 44 for energy savings for Irish domestic supply customers.
IF-EU-540a.1	Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column	N/A - SSE does not operate nuclear generation.
IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A - SSE does not operate nuclear generation.
IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	SSE has robust processes and practices in place to manage cybersecurity and its datacentres are certified to ISO27001 for information security. SSE also has a suite of mandatory ethics and compliance training modules which all employees are required to complete, which includes Cyber Security eLearning module. SSE discloses the number of material or regulatory reportable incidents caused by cyber security breaches of SSE systems on page 102.
IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	A comparable indicator for GB is the Customer Interruptions and Customer Minutes Lost on SSE's electricity distribution network. See page 100 for data.

**Table 2. Activity Metrics**

Code	Activity metric	
IF-EU-000.A	Number of: (1) residential, (2) commercial, and (3) industrial customers served	See page 100 for SSE's domestic and business customer supply accounts.
IF-EU-000.B	Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	See page 88 and 89 of SSE's Annual Report 2021 for volume of electricity sold to customers by business and domestic supply businesses. See page 81 of SSE's Annual Report 2021 for the electricity distributed to customers by SSEN Distribution.
IF-EU-000.C	Length of transmission and distribution lines	SSEN owns, operates and maintains around 130,000km of overhead lines and underground cables. SSE reports the length of electricity transmission lines only in its CDP Climate Change Programme response, which is publicly available at <a href="http://sse.com/sustainability">sse.com/sustainability</a> .
IF-EU-000.D	Total electricity generated, percentage by major energy source, percentage in regulated markets	See page 100 of this report and pages 83 and 86 of SSE's Annual Report 2021 for SSE's generation by source. SSE has generation activities in the UK and Ireland which are both regulated markets.
IF-EU-000.E	Total wholesale electricity purchased	See pages 88 and 89 of SSE's Annual Report 2021 where the total volume of electricity sold by SSE Business Energy and SSE Airtricity is described. Because both these businesses act independently from SSE's generation businesses in the market, the volume of electricity sold to customers represents the net amount of electricity purchased by SSE throughout 2020/21.

**HEADING HERE****SSE'S GREEN BOND REPORTING**

SSE issued its fourth Green Bond (GB4) of £500m in March 2021. This GB4 was fully allocated at issuance to refinance part of SSE Transmission's programme of critical investments in transmission network infrastructure that will help accommodate the significant increase in renewables required to achieve the transition to net zero emissions. This GB4 is in addition to SSE's previous three Green Bonds which were issued in 2017, 2018 and 2019 to refinance part of SSE's portfolio of eligible projects of onshore and offshore wind farms in the UK and Ireland as well as refinance part of Scottish Hydro Electric's (SHET) large capital investment programme of eligible transmission network projects in the UK (including the Caithness Moray and Shetland transmission projects).

The four green bonds that SSE has issued makes SSE the largest issuer of Green Bonds in the FTSE100 and bringing the total outstanding to £2bn.

SSE's Green Bond framework details the projects that SSE finances under each Green Bond and every year the Green Bonds are assured by PwC against SSE's GB Framework and its criteria document.

All green bonds that have been issued were used to refinance projects and the whole amount raised was employed at settlement:

- Green Bond 1 was issued in 2017 to refinance £548.4m of onshore wind projects with a capacity of 411MW. These projects generated around 878GWh of low carbon electricity and saved around 204.7 MtCO<sub>2</sub>e of carbon in the period between 01 April 2020 and 31 March 2021.
- Green Bond 2 was issued in 2018 to refinance £591.4m of onshore wind projects with a capacity of 132MW along with the Caithness-Moray HVDC (High Voltage Direct Current) transmission connection project. The Caithness- Moray transmission project has a capacity of 1,200MW and transmits renewable power from the north of Scotland across the UK. The onshore wind farm projects generated around 286GWh of low carbon electricity and saved around 66.8MtCO<sub>2</sub>e of carbon in the period between 01 April 2020 and 31 March 2021.
- Green Bond 3 was issued in 2019 to refinance £350m of transmission projects and Green Bond 4 was issued in March 2021 to refinance £500m of transmission projects. The primary reason for the transmission projects in the SHET network region is to support the expected increase in renewable generation connecting to the transmission network. Transmission networks can involve the construction of new transmission assets or the upgrade or reinforcement of existing transmission infrastructure to support new renewable connections. For the pipeline of SHET projects, the green impact relates to the capacity of renewable generation connected or the installation of new or upgraded transmission infrastructure that accepts additional power from the new renewable projects.

More detail on SSE's Green Bonds, including its Green Bond Framework and full allocation of proceeds alongside green impact reporting, can be found on [sse.com/greenbond](http://sse.com/greenbond).

**ESG RATINGS AND INDICES PERFORMANCE**

To increase transparency of its performance in key ESG ratings and investor-led initiatives, the table below outlines SSE's last two years' ratings and inclusion in indices. Performance provided represents ratings received in each financial year rather than the results of assessments based on that financial year's data. Due to timings of when the various assessments are undertaken, the financial year data used varies.

	<b>2020/21</b>	<b>2019/20</b>	<b>Stable/improved/decreased</b>
 <b>MSCI ESG RATINGS</b>	AAA	AAA	<b>Stable</b> SSE is in the top 7% of 143 global utilities (Oct 2020)
 <b>SAM</b> Now a Part of <b>S&amp;P Global</b>	56/100	40/100	<b>Improved</b> SSE has a 69th percentile ranking (Nov 2020)
	A-	A-	<b>Stable</b> SSE scored as 'Leadership' (Feb 2021)
	B	B	<b>Stable</b> SSE scored as 'Management' (Feb 2021)
 <b>WDI</b> WindEnergy Disclosure Initiative	Included	Included	<b>Stable</b> SSE is in the top decile for disclosure in the WDI (Mar 2021)
	63/100	62/100	<b>Improved</b> SSE scored as 'Advanced' (Nov 2020)
 <b>SUSTAINALYTICS</b> ESG Risk Rating*	30.1	32.8	<b>Improved</b> SSE is ranked in the 31st percentile in the Utilities sector and assessed as having 'strong' management of material ESG issues (Apr 2021)
	Included	Included	<b>Stable</b> SSE has been included in the index series for a number of years (Jun 2020)
	Included	Included	<b>Stable</b> SSE has been included since the index was extended beyond the finance sector in 2018 (Jan 2021)

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