# **Ørsted - Climate Change 2020**

## **C0. Introduction**

## **C0.1**

### **(C0.1) Give a general description and introduction to your organization.**

Ørsted is an energy company which focusses on renewable energy. Our vision is a world that runs entirely on green energy. Ørsted develops, constructs and operates offshore and onshore wind farms, solar farms, energy storage facilities, and bioenergy plants, and provides energy products to our customers.

Over the past decade, Ørsted has transformed from an energy company based on fossil fuels to a global leader in renewable energy, and we plan to further accelerate our build-out of renewable energy. Our strategic ambition will be supported by an extensive investment programme. From 2019 to 2025, we currently expect total gross investments of approx DKK 200 billion in renewable energy. By 2025, more than 99% of our energy generation will come from renewable sources, and by 2030, our ambition is to reach more than 30GW of green energy deployed, enough to power more than 50 million people by green energy built by Ørsted.

Just like we have transformed, we want to help transform the world’s energy systems away from fossil fuels towards green energy to limit average global temperature rise to 1.5°C.

- For our energy generation and operations (scope 1 and 2 emissions), our target is to become carbon neutral by 2025. To achieve this, we will reduce our carbon intensity to less than 10g CO2e/kWh, which represents at least a 98% reduction compared to 2006.

- For our total carbon footprint (scope 1-3), our target is to reach net-zero emissions by 2040, a decade faster than required by science. To help achieve this, we target a 50% reduction of the emissions in our energy trading and supply chain (scope 3) by 2032, compared to 2018.

We have 6,600 employees and our headquarters is in Denmark. Ørsted's shares are listed on Nasdaq Copenhagen (Orsted). In 2019, Ørsted’s revenue was DKK 67.8 billion and our operating profit was DKK 17.5 billion.

We divide our operations into three business areas:

- Offshore (Capital employed 74%): We develop, construct, own and operate offshore wind farms in the UK, Germany, Denmark, the Netherlands, the US and Taiwan. Exploring opportunities in Japan, Poland and South Korea. We are the market leader within global offshore wind power generation with 25+ years of experience and 24 offshore wind farms in operation.

- Onshore (Capital employed 11%): We develop onshore wind, solar PV and storage projects in the US. Owner of 7 onshore wind farms, 2 solar PV farms and 2 storage facilities

- Markets and Bioenergy (Capital employed 15%): Operate and maintain combined heat and power (CHP) plants. Operator of 6 bioconverted CHP plants, 3 heat and ancillary service plants and 1 coal-fired CHP plant. Provide route-to-market services for our own and third-parties’ electricity, power certificates and gas. Manage Ørsted’s energy portfolio risks.

In September 2019, Ørsted entered into an agreement to divest its Danish power distribution, residential customer and City Light businesses to SEAS-NVE. The Danish competition authorities and the Danish Energy Agency have approved this divestment, and the transaction is expected to be fully completed on 31 August 2020. This change is not reflected in this response, as we are reporting data for 2019.

## **C0.2**

### **(C0.2) State the start and end date of the year for which you are reporting data.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Start date** | **End date** | **Indicate if you are providing emissions data for past reporting years** | **Select the number of past reporting years you will be providing emissions data for** |
| Reporting year | January 1 2019 | December 31 2019 | No | <Not Applicable> |

## **C0.3**

### **(C0.3) Select the countries/areas for which you will be supplying data.**

Denmark

Germany

Netherlands

United Kingdom of Great Britain and Northern Ireland

United States of America

## **C0.4**

### **(C0.4) Select the currency used for all financial information disclosed throughout your response.**

DKK

## **C0.5**

### **(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Financial control

## **C-EU0.7**

### **(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.**

### **Row 1**

### **Electric utilities value chain**

Electricity generation

Distribution

### **Other divisions**

Gas storage, transmission and distribution

Smart grids / demand response

Battery storage

## **C1. Governance**

## **C1.1**

### **(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

## **C1.1a**

### **(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

|  |  |
| --- | --- |
| **Position of individual(s)** | **Please explain** |
| Board-level committee | The selection “Board-level committee” refers to Ørsted’s Board of Directors (BoD). At Ørsted, we have a two-tier management structure consisting of the Board of Directors (BoD) and the Executive Board. Our overall and strategic management of the company is anchored in the BoD, a board of nonexecutive directors appointed by the shareholders. The BoD has appointed an Executive Board to handle the day-to-day management. None of our executives are members of the BoD. Our CEO and CFO are members of the Executive Board of Ørsted. The Executive Board undertakes the day-to-day management of Ørsted through the Group Executive Management (GEM), which comprises our CEO, CFO, CHRO and the Executive Vice Presidents of the business units. i) Explanation of the BoD responsibility for climate issues: - Climate change is fundamental to Ørsted's business strategy, and for this reason the responsibility for climate-related issues is anchored at the highest possible level in the company: The BoD. Our BoD monitor and oversee progress related to Ørsted’s strategic ambitions, including our ambitious targets for addressing climate-related issues. The BoD seek to integrate considerations for climate protection when setting our strategic direction, reviewing sustainability risks, setting performance objectives, deciding on our capital allocation, and when approving and overseeing major investments, acquisitions and divestments. The BoD signs off on external reporting on climate change and progress on our CO2 reduction targets are reported to the BoD monthly. ii) Examples of climate-related decisions made by Ørsted's BoD in 2019: - Update of target to reduce scope 1-2 greenhouse gas emissions . Our target is to become carbon neutral by 2025. To achieve this, we will reduce our carbon intensity to less than 10g CO2e/kWh, which represents at least a 98% reduction compared to 2006. - New target to reduce scope 3 greenhouse gas emissions. Target is to reduce absolute emissions 50% from 2018 to 2032. For our total carbon footprint (scope 1-3), our target is to reach net-zero emissions by 2040, a decade faster than required by science. - Decision to invest in our first large-scale Taiwanese offshore wind project Greater Changhua 1 & 2a (900MW). - Decision to divest our LNG business. |

## **C1.1b**

### **(C1.1b) Provide further details on the board’s oversight of climate-related issues.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Frequency with which climate-related issues are a scheduled agenda item** | **Governance mechanisms into which climate-related issues are integrated** | **Scope of board-level oversight** | **Please explain** |
| Scheduled – all meetings | Reviewing and guiding strategy  Reviewing and guiding risk management policies  Setting performance objectives  Overseeing major capital expenditures, acquisitions and divestitures  Monitoring and overseeing progress against goals and targets for addressing climate-related issues | <Not Applicable> | The Board of Directors (BoD) lays down the company's strategy and makes decisions concerning major investments and divestments, the capital base, key policies, controls and audit matters, risk management and significant operational issues. Since climate change is fundamental to Ørsted's business strategy and all our investments, climate-related issues are directly or indirectly an agenda item at all board meetings. As such, climate-related issues are integrated in reviewing and guiding strategy, performance and in all aspects of decision-making. The BoD monitors progress against Ørsted's strategic goals and targets for addressing climate-related issues. |

## **C1.2**

### **(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the position(s) and/or committee(s)** | **Reporting line** | **Responsibility** | **Coverage of responsibility** | **Frequency of reporting to the board on climate-related issues** |
| Chief Executive Officer (CEO) | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than quarterly |
| Please select | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C1.2a**

### **(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

**i) Description of CEO responsibility for climate issues:**

As chair of the Group Executive Management (GEM), Ørsted’s CEO is the highest position with executive responsibility for climate change performance. Our CEO is responsible for implementing measures to achieve our scope 1-2 CO2 reduction target of an emission intensity of no more than 20g CO2e per kWh in 2023 and 10g CO2e per kWh in 2025 . Our CEO monitors performance against Ørsted’s strategic KPIs monthly, including CO2e per kWh. Our finance organisation is accountable for ensuring the integrity of climate data, and all BUs have appointed a person responsible for managing data collection processes. Climate data are reported monthly and the most important data are reviewed at monthly meetings in the GEM. Climate data are made public in our quarterly and annual financial and sustainability reports, which are prepared by the GEM and signed off on by our Board of Directors (BoD).

In our response to C1.1a, we have outlined our governance model with a two-tier management structure.

**ii) Explanation of the CEO responsibility for climate issues:**

Climate change is fundamental to Ørsted's business strategy, and for this reason the executive responsibility for climate-related issues is anchored at the highest executive position in the company: Our CEO. The CEO is responsible for undertaking the day-to-day management of Ørsted through the Group Executive Management (GEM), which includes implementing measures to achieve our strategy. Specific examples of the CEO responsibility includes:

– Deliver on path towards 99% green share of generation by 2025 and reduce scope 1-2 greenhouse gas (GHG) emissions intensity by 98% by 2025

– Continue journey to raise Ørsted’s corporate profile as a global leader in renewable energy and sustainability

## **C1.3**

### **(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

|  |  |  |
| --- | --- | --- |
|  | **Provide incentives for the management of climate-related issues** | **Comment** |
| Row 1 | Yes |  |

## **C1.3a**

### **(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Entitled to incentive** | **Type of incentive** | **Activity inventivized** | **Comment** |
| Chief Executive Officer (CEO) | Monetary reward | Emissions reduction project  Emissions reduction target | Chief Executive Officer (CEO): Ørsted has targets to reduce the greenhouse gas intensity of our energy generation 98% by 2025 and reduce our scope 3 emissions 50% by 2032. This includes a decision to stop using coal in 2023. These targets influence several specific performance indicators and projects that are tied to executive remuneration. Primary indicators are: (1) Increase green energy share to reach 99% by 2025; and reduce scope 1-2 emissions intensity of energy generation (gCO2e/kWh) with 98% from 2006 to 2025. (2) Reduce scope 3 emissions (tCO2e) with 50% from 2018 to 2032. (3) Expand Ørsted’s installed renewable energy capacity to 30GW by 2030. (4) Further transform our combined heat and power stations from coal and gas to sustainable biomass. |
| Corporate executive team | Monetary reward | Emissions reduction project  Emissions reduction target | Group Executive Management (GEM): Ørsted has targets to reduce the greenhouse gas intensity of our energy generation 98% by 2025 and reduce our scope 3 emissions 50% by 2032. This includes a decision to stop using coal in 2023. These targets influence several specific performance indicators and projects that are tied to executive remuneration. Primary indicators are: (1) Increase green energy share to reach 99% by 2025; and reduce scope 1-2 emissions intensity of energy generation (gCO2e/kWh) with 98% from 2006 to 2025. (2) Reduce scope 3 emissions (tCO2e) with 50% from 2018 to 2032. (3) Expand Ørsted’s installed renewable energy capacity to 30GW by 2030. (4) Further transform our combined heat and power stations from coal and gas to sustainable biomass. |

## **C2. Risks and opportunities**

## **C2.1**

### **(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

## **C2.1a**

### **(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **From (years)** | **To (years)** | **Comment** |
| Short-term | 0 | 2 |  |
| Medium-term | 2 | 5 |  |
| Long-term | 5 | 40 | Ørsted’s definition of long-term is 5-40 years. The long-term horizon is primarily related to the lifetime of assets. |

## **C2.1b**

### **(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

**i) Definition of 'substantive financial impact'**

Business risks are defined as incidents or strategic risks that, with reasonable probability, will materialise and cause negative impact on Ørsted’s earnings, rating metrics and value based on the current financial forecast. The negative financial impact of risks is used to define a “substantive financial impact”.

The applied threshold that defines a “substantive financial impact” varies from year to year based on Ørsted’s financial situation. The risks with the highest negative financial impact (NPV) are viewed as most significant and are given the highest level of priority. For the purpose of disclosing climate risks in this CDP response, we define a “substantive financial impact” as risks that may impact Ørsted’s earnings (EBITDA) with a magnitude of more that DKK 100 million per year.

**ii) Description of the quantifiable indicators used to define substantive financial impact**

The quantitative prioritization of risks is based on a financial impact assessment. The significance of each of the identified risks is evaluated based the quantifiable indicators:

- Impact on Ørsted’s value (NPV), quantified as impact on earnings (EBITDA) per year

- Impact on Ørsted’s rating metric (FFO/NIBD)

## **C2.2**

### **(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

### **Value chain stage(s) covered**

Direct operations

### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

### **Frequency of assessment**

More than once a year

### **Time horizon(s) covered**

Short-term

Medium-term

Long-term

### **Description of process**

iii) Process for climate opportunities Climate change is fundamental to Ørsted’s business strategy, and all our investments are aimed at our green energy portfolio. From 2019 to 2025, we expect to invest DKK 200 billion in renewable energy, and the heading of our 2025 strategy is ’Green growth’. The Group Executive Management (GEM) is responsible for executing our strategy, and our Corporate Strategy department, who acts as an advisory body to the CEO, are involved in pursuing climate related business opportunities at group level. The BoD is directly or indirectly addressing climate-related opportunities when assessing and deciding on new investments in assets or activities. iii) Process for climate risks Our process for identifying and assessing climate-related risks is fully integrated into our company-wide risk identification, assessment, and management processes lead by the Financial Planning & Analysis team (FP&A) in the Finance department. The outcome of this company-wide risk assessment is an annual consolidated overview of our most significant business risks. A concluding risk memo is reported to the Audit and Risk Committee and the Board of Directors (BoD), and a summary of the risk memo is reported in our Annual Report. To identify risks, we follow a yearly process, where all business units and selected staff functions identify and prioritise their business risks. In collaboration with each of the business units and group functions, we identify both climate risks and other business risks. All assets, such as offshore wind farms, onshore wind farms, solar PV parks, and power stations, are taken into consideration when identifying risks. On a group level, significant business risks are evaluated and stress-tested continually along with the preparation of long-term financial forecasts. Business risks are evaluated more frequently when specific investment decisions are considered. An assessment is made of the potential financial impact of identified risks and of whether they are of a short-term, medium-term, long-term or recurring nature. The risks are consolidated and then prioritised at Group level. The outcome is a prioritised list with descriptions and quantifications of Ørsted’s most significant business risks. The most central assumptions, including production volumes, operational factors, cost and construction budgets, market prices, potential future regulations and legal disputes are assessed and quantified. The quantification of each risk is based on a P90 scenario (i.e. a risk scenario that will materialise with 10% probability) except when risks are binary. The purpose of our risk management is to identify the various risks to which we are exposed, and then decide how to manage them. We assess the extent to which these risks can be reduced to ensure an optimum balance between risk and return. The ultimate responsibility for the individual risks rests with a member of the Group Executive Management (GEM), and for each of the identified risks, the GEM has assessed whether the level of risk – after risk-reducing measures have been implemented – is appropriate. If the risk is higher than the desired level, the GEM decides to initiate further risk-reducing measures to the extent possible. iv) A case study of how our risk management process has been applied to a physical risk Markets & Bioenergy business unit: Development of temperatures and precipitation volumes Situation: Both the acute and chronic climate-related developments of temperature and precipitation volumes in North Western Europe can impact Danish power prices. In 2019 Ørsted generated 20.1 TWh power in total, of which 6.8 TWh power was generated in Denmark. The risk related to this has been identified by our M&B business unit and included in the annual company-wide risk assessment our FP&A team. Task: High winter temperatures in Denmark cause lower power prices in Denmark, due to a lower consumer demand for heating. Also, high winter precipitation in Norway and Sweden lead to higher generation of hydropower in their grids, and because their power grids are connected to Denmark this can cause lower power prices in Denmark. As a part of the annual company-wide risk assessment, our FP&A team has quantified this risk using a P90 scenario, and the M&B business unit has identified possible risk-reducing measures. Examples of actions we take action to manage this risk: a) Converting our power stations from coal and gas to sustainable biomass. In 2019 we finished the conversion of our Asnæs Power Station from coal to sustainable biomass. b) For biomass-based power generation, we secure profitability by buying biomass at fixed prices and hedging of the associated power generation. An outcome of our risk management actions: a) The biomass conversion of our power stations enables the business to shift away from delivering power to delivering green heat on long-term contracts. Heat generation does not give rise to price risks, as the associated costs are covered by the heat customers. b) At the end of 2019, 50% of the expected power generation from our power stations in 2020 was hedged. v) A case study of how our risk management process has been applied to a transitional risk Offshore business unit: Regulatory risks Situation: As a renewable energy company, we are exposed to offshore wind regulations. In 2019 Ørsted’s offshore wind farms generated 42% of Ørsted’s total energy generation (heat and power). The risk related to this has been identified by our OF business unit and included in the annual company-wide risk assessment our FP&A team. Task: The risk to Ørsted’s offshore wind business associated with current regulatory regimes is twofold. First, it is associated with the risk of not obtaining expected offshore wind subsidies or in other ways not obtaining support for offshore build-out. Secondly, it is associated with the risk of not obtaining the needed consents, grid connections and relevant approvals from local authorities, including permits or other agreements needed to secure a viable offshore wind project. As a part of the annual company-wide risk assessment, our FP&A team has quantified this risk, and the OF business unit has identified possible risk-reducing measures. Example of actions we take action to manage this risk: a) We diversify the geographical risk by continuously exploring new offshore wind markets. An outcome of our risk management actions: a) As a result of Ørsted’s strategy towards geographical diversification, we have entered the Taiwanese market. In April 2019, Ørsted’s Board of Directors took the final investment decision (FID) on the Changhua 1 and 2a offshore wind farm (900MW) in Taiwan. The offshore wind farm will be located 35-50 kilometers off the coast of Changhua County and will be constructed in 2021 and 2022.

## **C2.2a**

### **(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

|  |  |  |
| --- | --- | --- |
|  | **Relevance & inclusion** | **Please explain** |
| Current regulation | Relevant, always included | Relevant to the energy sector, as climate regulations directly affect energy companies. Today energy consumption is the cause of approx. of 75% of global greenhouse gas emissions. Example of a regulatory risk considered in Ørsted’s risk assessment: The risk to Ørsted’s offshore wind business associated with current regulatory regimes is twofold. - First, it is associated with the risk of not obtaining renewable energy subsidies or in other ways support for offshore build-out. Not obtaining expected subsidies may impact earnings from a wind farm. An example of a regulated subsidy Ørsted receives is the contract for difference (CfD) subsidy scheme in the UK. Ørsted’s Burbo Bank Extension, Walney Extension and Hornsea I offshore wind farms are under the CfD-regime. - Secondly, it is associated with the risk of not obtaining the needed consents, grid connections and relevant approvals from local authorities, including permits or other agreements needed to construct a new offshore wind farm. Not obtaining permits or needed consents may delay construction of a wind farm and increase construction costs. |
| Emerging regulation | Relevant, always included | Relevant to the energy sector, as emerging regulation is important to build the framework and support an efficient transition to a global low-carbon future. Examples of an emerging regulatory risk considered in Ørsted’s risk assessment: - The future renewable energy regulations in the UK after finalization of the Brexit negotiations - The future regulatory framework for offshore wind in Taiwan. - The future regulatory framework in the US. Ørsted’s expanding pipeline of US offshore wind projects entails risks in the development and construction phases caused by the relatively immature US offshore wind market, including the federal permitting framework. In the US, it is possible to participate in auctions and be awarded projects where consent and/or grid connections are not yet secured. Thus, following an award, our project development of a new offshore wind farm entails regulatory risks in obtaining key consents as well as securing grid connection. By the end of 2019, Ørsted had 2,934 MW awarded and contracted renewable capacity in the US, where our final investment decision (FID) had not yet been made. |
| Technology | Relevant, always included | Technological risks are relevant to the renewable energy sector, due to the important role of the sector to support an efficient transition to a global low-carbon future. Particularly, technological developments that contribute to lowering the levelised cost of electricity (LCoE) of renewable energy is important. Example of a technology risk considered in Ørsted’s risk assessment: - A large part of Ørsted’s earnings is generated from offshore wind, with Denmark and the UK being the key regions. Therefore, the risk related to the stagnating technological developments of offshore wind turbines is relevant for Ørsted. The levelised cost of electricity (LCoE) has decreased substantially since the first large-scale wind farms were constructed, and costs are continuously being reduced across the industry. To put into perspective, the wind turbines used at our Vindeby offshore wind farm in 1991 were 35m high and had a capacity of 0.45MW, while the turbines used at our Burbo Bank extension wind farm in 2017 were 113m high and had a capacity of 8.00MW. It is relevant for Ørsted whether technological developments will continue to bring down costs, which enables offshore wind to remain competitive with other types of energy. |
| Legal | Not relevant, explanation provided | Risks associated with Ørsted’s legal compliance are assessed based on financial and reputational significance and probability. Our most significant legal risks are tax law, financial regulation and the EU General Data Protection Regulation (GDPR), which are not climate related risks. Legal risks to climate change have been assessed and were found to be 'not relevant' in the context of our climate-related risk assessments. |
| Market | Relevant, always included | Relevant to the energy sector, due to the important role of the sector to support an efficient transition to a global low-carbon future. Example of a market risk considered in Ørsted’s risk assessment: - Market risk is one of our most significant risks, and power prices is an example of a climate-related market risk always considered in our risk management process. We are primarily exposed to power price risks from the sale of our wind-based power generation in the UK and Denmark. To put the sale of wind power into perspective, Ørsted generated 20.1 TWh power in 2019, of which 15.5 TWh was from offshore and onshore wind. |
| Reputation | Relevant, always included | Reputational risks are relevant to the energy sector, due to the important role of the sector to support an efficient transition to a global low-carbon future. Example of a reputational risk considered in Ørsted’s risk assessment: Through Ørsted’s annual sustainability materiality assessment, we seek to understand the sustainability challenges that currently face society and our business. We address the most material challenges through our sustainability programmes. ‘Climate action’ is a societal challenge with high importance to both our stakeholders and business. Energy companies that do not demonstrate how they will provide value in a low-carbon economy may be at risk of struggling to access capital. Also, employee retention and recruiting may be a risk to companies without a clear climate strategy that enables company’s long-term value creation in a low-carbon future. |
| Acute physical | Relevant, always included | Example of an acute physical climate risk considered in Ørsted’s risk assessment: - Most of our power generating assets are located offshore or at seaside and thereby exposed to extreme weather conditions. All our installations are designed to withstand extreme conditions. However, there is a risk that rare incidents may happen which can impact on the integrity of our installations. This includes the risk of 1,000-year storms, hurricanes, typhoons or earthquakes, which may lead to the loss of power generation from Ørsted’s offshore and onshore wind farms. This risk is mainly relevant in Taiwan, where Ørsted is the co-owner of Taiwan’s first commercial-scale offshore wind farm, Formosa 1 (128MW), and where we are constructing the large-scale Taiwanese offshore wind project, Greater Changhua 1 & 2a (900MW). |
| Chronic physical | Relevant, always included | Example of a chronic physical climate risk considered in Ørsted’s risk assessment: - To generate offshore wind energy, we rely on natural resources such as locations with attractive wind speeds and seabed conditions. Chronic physical risks such as changes in wind speed, changes in precipitation patterns, and rising mean temperatures are therefore always considered in our risk assessment process. By the end of 2019 Ørsted had a power generation capacity of 3,627 MW offshore wind. For these wind farms in operation, wind speed and availability are the two most important parameters that can affect the volume of power generated by our offshore wind turbines in a given period. In 2019, the weighted average wind speed at Ørsted’s offshore wind farms was 9.2 m/s. |

## **C2.3**

### **(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.3a**

### **(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

### **Identifier**

Risk 1

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

|  |  |
| --- | --- |
| Chronic physical | Other, please specify (Wind speed) |

### **Primary potential financial impact**

Decreased revenues due to reduced production capacity

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

Climate change may lead to changes in wind speeds. Ørsted’s exposure to the risk disclosed here relates to wind speed at our offshore wind farms. Our offshore wind farms in operation are primarily located in North-western Europe (Denmark, Germany, the UK) . Our power generation from offshore wind farms directly depend on the wind speed in the areas for Ørsted's wind farms. In 2019, power generated from our offshore wind farms constituted 12.0 TWh of Ørsted’s total power generation of 20.1 TWh. In 2019, the average portfolio windspeed of our offshore wind farms was 9.2m/s, which was in line with a normal wind year. We categorize the wind risk in three groups: 1) Footprint wind: Ørsted mainly holds offshore wind farms in Northern Europe, where the weather and hence the wind is highly correlated. When the wind speeds in Northern Europe are low, it can potentially affect nearly all Ørsted’s offshore wind farms. 2) Local wind: When estimating the wind speeds at our wind farms, there is uncertainty related to the measuring equipment, local atmospheric conditions as well as variation in wind speed over time. 3) Annual wind: The average wind speed at our wind farms can vary from year to year and hence impact Ørsted’s annual earnings from offshore wind due to natural fluctuations. Over a 10-year period, the standard deviation in annual wind speeds in the areas of Ørsted’s wind farms is likely in the range 1-2%. Over the full lifetime of our assets, the variation is even lower.

### **Time horizon**

Long-term

### **Likelihood**

Unlikely

### **Magnitude of impact**

Medium

### **Are you able to provide a potential financial impact figure?**

Yes, an estimated range

### **Potential financial impact figure (currency)**

<Not Applicable>

### **Potential financial impact figure – minimum (currency)**

300000000

### **Potential financial impact figure – maximum (currency)**

500000000

### **Explanation of financial impact figure**

The financial impact shown is EBITDA per year, as a consequence of reduced offshore wind power generation due to lower wind speeds. This is calculated based on a P90 scenario (i.e. a risk scenario that will materialise with 10% probability). For this reason, our selection in the column “likelihood” is “Unlikely”. Our earnings forecast reflects our expected development in this risk driver. The estimated potential financial impact is thus additional to our financial forecast. The financial impact we disclose is an estimated figure, which represent a single scenario (of many possible) which indicate the potential magnitude of the risk.

### **Cost of response to risk**

4700000000

### **Description of response and explanation of cost calculation**

Ørsted employs the following actions to mitigate this risk: 1) Footprint Wind: This is bound to the size of Ørsted’s operating footprint (currently North Western Europe). We manage the risk by diversifying our geographical footprint. We have recently established ourselves in the emerging US and TW markets for offshore wind power. 2) Local Wind: We perform high quality wind speed measurements early in the wind farm development process and before FID. This helps us to locate turbines for the maximum possible wind yield. 3) Annual Wind: Fluctuations are natural and cannot be mitigated. Over the lifetime of our assets, the annual variation of wind speed is low. Case study and cost of management (footprint wind) The data in “cost of management” are Ørsted’s investments in 2018 for the acquisitions of Deepwater Wind (DKK 4.7 billion). Deepwater Wind is a leading US-based offshore wind developer on the US East Coast (approx 2.6GW offshore capacity by the end of 2018). This investment has been made as a strategic business opportunity, and the acquisition has thus not been made specifically to diversify our risk related to wind speeds. The investment may provide some risk mitigation by diversifying the geographical risk related to the annual variations in wind speeds across the footprint of Ørsted’s wind farms. It may do so because the wind speeds in the US are not directly correlated to the wind speeds in North Western Europe.

### **Comment**

While this action may mitigate Ørsted’s risk related to footprint wind, the costs disclosed in “costs of management” should not be seen as a comprehensive risk report of Ørsted’s cost of managing this risk type.

### **Identifier**

Risk 2

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

|  |  |
| --- | --- |
| Chronic physical | Rising mean temperatures |

### **Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

Climate change may lead to rising mean temperatures and changing precipitation patterns. Ørsted’s exposure to this risk relates to temperature, precipitation and other developments in weather that can affect Danish power prices. This risk is thus not solely related to the selected risk driver “rising mean temperatures”. In Denmark, Ørsted owns and operates 6 CHP plants that have been converted to biomass, 3 heat and ancillary service plants, and 1 coal-fired CHP plant. In 2019, power generated from our thermal power plants constituted 4.6 TWh of Ørsted’s total power generation of 20.1 TWh. In 2019 the number of degree days (a measure of how cold it has been and thus indicate the amount of energy needed to heat a building) in Denmark was 5% lower than in 2018. This means that the weather near our Danish CHP plants was warmer in 2019 than in 2018, which led to a lower customer need for our heat generation. The selling price of power and heat from Ørsted’s Danish CHP plants is dependent on temperatures in North Western Europe. The selling power prices are also dependent on the precipitation volumes in Norway and Sweden. Consequently, high winter temperature and winter precipitation cause lower power prices. This impacts Ørsted’s Bioenergy business, because the profitability of power generation from our thermal power plants is determined by the difference between the selling price of power and the purchase price of fuel and carbon emissions allowances. The power generation from our CHP plants thus entails a spread exposure between the difference in the power price and the fuel price (i.e. biomass, coal, gas and carbon quotas). The power pieces in Denmark thus impact Ørsted’s Bioenergy business, and in years with unusual high winter temperatures or unusual high winter precipitation, Bioenergy will experience lower earnings compared to forecasts.

### **Time horizon**

Short-term

### **Likelihood**

Unlikely

### **Magnitude of impact**

Low

### **Are you able to provide a potential financial impact figure?**

Yes, an estimated range

### **Potential financial impact figure (currency)**

<Not Applicable>

### **Potential financial impact figure – minimum (currency)**

100000000

### **Potential financial impact figure – maximum (currency)**

300000000

### **Explanation of financial impact figure**

The financial impact shown is EBITDA per year, as a consequence of reduced power prices due to increased temperatures, precipitation and other developments in weather that can affect Danish power prices. This is calculated based on a P90 scenario (i.e. a risk scenario that will materialise with 10% probability). For this reason, our selection in the column “likelihood” is “Unlikely”. Our earnings forecast reflects our expected development in this risk driver. The estimated potential financial impact is thus additional to our financial forecast. The financial impact we disclose is an estimated figure, which represent a single scenario (of many possible) which indicate the potential magnitude of the risk.

### **Cost of response to risk**

1400000000

### **Description of response and explanation of cost calculation**

Ørsted employs the following actions to mitigate this risk: - The business is shifting away from delivering power to delivering green heat on long-term contracts from our biomass fired CHP plants. - For our biomass-based power generation, we secure profitability by buying biomass at fixed prices and hedging the associated power generation. At the end of 2018, 52% of the power generation expected in 2019 from our power stations was hedged. The total net risk associated with the CHP's power generation for the 2019-2023 period is DKK 1.6 billion after hedging. - We build our capacity to generate heat and power independently of each other, so that we may choose not to generate power at times when the demand for heat and wind power generation is high, and where power prices are therefore low. We have installed electric boilers at some of our power plants, incl. Studstrupværket and Svanemølleværket to be able to produce district heating when the power prices are low. Case study and cost of management The data in “cost of management” are Ørsted’s investments in 2018 for our power stations (DKK 1.4 billion), mainly the conversion of Asnæs Power Station from coal to biomass. This investment contributes to reducing Ørsted’s exposure to fluctuating power prices, as we shift our focus to the generation of district heating, which represents a stable source of income due to the long-term heat contracts. Heat generation does not give rise to price risk as the associated costs are covered by the heat customers.

### **Comment**

While this action may mitigate Ørsted’s risk related to fluctuating power prices (due to variations in temperature and precipitation), the costs disclosed in “costs of management” should not be seen as a comprehensive risk report of Ørsted’s cost of managing this risk type.

### **Identifier**

Risk 3

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

|  |  |
| --- | --- |
| Chronic physical | Changes in precipitation patterns and extreme variability in weather patterns |

### **Primary potential financial impact**

Increased direct costs

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

Climate change may lead to changes in weather patterns (e.g. precipitation and storms). Ørsted’s exposure to this risk relates to weather conditions at our offshore wind farms, which may cause worse site conditions (i.e. access to the site for repair and maintenance). Changing weather conditions at sea may lead to increased OPEX for our offshore wind farms, due to an increase in the failure rate at our wind turbines and decreased availability. The risks associated with the operation of offshore wind farms relate to forecasts for availability and operating expenses as well as faults in transmission cables and substations. Faults like this may result in breakdowns and loss of generation from parts of or an entire offshore wind farm over an extended period of time. In the markets most relevant to Ørsted, such losses are not compensated in the UK, whereas they are fully compensated in Denmark and partly compensated in Germany and Holland. Our power generation from wind farms directly depend on the availability of our wind turbines. In 2019, the average avilability off our offshore wind turbines was 93%, and power generated from our offshore wind farms constituted 12.0 TWh of Ørsted’s total power generation of 20.1 TWh. Climate change may increase the likelihood of such weather events that impact our OPEX. Our forecasts for availability and operating expenses are based on several assumptions received from suppliers and on historical data. There is a risk that these assumptions do not hold, and that fault rates and costs are higher than expected. This may lead to deviations between actual generation and forecasts.

### **Time horizon**

Long-term

### **Likelihood**

Unlikely

### **Magnitude of impact**

Medium

### **Are you able to provide a potential financial impact figure?**

Yes, an estimated range

### **Potential financial impact figure (currency)**

<Not Applicable>

### **Potential financial impact figure – minimum (currency)**

500000000

### **Potential financial impact figure – maximum (currency)**

700000000

### **Explanation of financial impact figure**

The financial impact shown is EBITDA per year, as a consequence of increased OPEX costs at our offshore wind farms due to changing weather patterns. This is calculated based on a P90 scenario (i.e. a risk scenario that will materialise with 10% probability). For this reason, our selection in the column “likelihood” is “Unlikely”. Our earnings forecast reflects our expected development in this risk driver. The estimated potential financial impact is thus additional to our financial forecast. The financial impact we disclose is an estimated figure, which represent a single scenario (of many possible) which indicate the potential magnitude of the risk.

### **Cost of response to risk**

5600000000

### **Description of response and explanation of cost calculation**

Ørsted employs the following actions to mitigate this risk: - We are implementing an operational excellence programme on our offshore wind farms with the aim of increasing the availability and power generation and reducing operational costs. - We have put in place various contingency plans to cater for unforeseeable events at our offshore wind farms. - Taking extreme weather conditions and other relevant factors into account when we design and construct our offshore wind farms. Case study and cost of management The data in “cost of management” are Ørsted’s investments in 2018 for the acquisition of Lincoln Clean Energy (DKK 5.6 billion). Lincoln Clean Energy (LCE) was a US-based developer, owner and operator of onshore wind farms and solar PV assets. By the end of 2018, Lincoln Clean Energy had an operating portfolio of 813MW onshore capacity and a near-term portfolio of 714MW of onshore capacity in advanced stages of development. This investment has been made as a strategic business opportunity, and the acquisition has thus not been made specifically to diversify our risk related to site conditions at sea. The investments contribute to diversifying our product portfolio towards onshore wind and solar PV. This may mitigate Ørsted’s exposure to changing weather and site conditions at sea, where our offshore wind farms are situated.

### **Comment**

While this action may mitigate Ørsted’s risk related to extreme weather events, the costs disclosed in “costs of management” should not be seen as a comprehensive risk report of Ørsted’s cost of managing this risk type.

## **C2.4**

### **(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.4a**

### **(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

### **Identifier**

Opp1

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Business opportunity: Offshore wind. Ørsted is active in all parts of the value chain and develop, construct, own and operate offshore wind farms in the UK, Germany, Denmark, the Netherlands, the US and Taiwan. We have been pioneers in the industry since we built the world’s first offshore wind farm in 1991, and we are the market leader within global offshore wind power generation with 25+ years of experience and 24 offshore wind farms in operation by the end of 2019. Worldwide, we have constructed more offshore wind farms than any other company – with a capacity of 6.8GW by the end of 2019 (1.0GW in Denmark, 1.4GW in Germany and 4.4GW in the UK). Offshore wind is thus a business opportunity for Ørsted. Ørsted’s global leadership position in offshore wind contributes to creating a strong foundation for reaching our strategic ambition of more than 30GW of installed renewable capacity by 2030. We have an aspiration to become a global, green energy major in a rapidly expanding global renewable energy market. As an example of concrete offshore wind business opportunities for Ørsted, several offshore wind auctions are expected in regions where we are present. Concrete examples of expected offshore wind auctions in 2020 and their expected capacity include: Holland Coast North 1 (760MW), Maryland 2nd (+400MW), New Jersey 2nd (1,200MW), New York 2nd (+1,000MW), and auctions in Taiwan and Japan. Market for offshore wind: The global market for offshore wind is growing rapidly. Installed offshore wind capacity excluding mainland China totalled 23GW in 2019. Bloomberg New Energy Finance estimates that the global offshore wind market will see the installation of approx 7GW per year between 2020 and 2025, and that annual additions will double to an average of 14GW per year by the mid to late 2020s. Currently, most offshore wind farms are located in Europe. However, new markets in Asia Pacific (APAC) and North America are expected to follow with booming growth.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

High

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

15200000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

Approach to calculate figure: Data in the column “potential financial impact” is Ørsted’s operating profit (EBITDA) from our Offshore business unit in 2019, in DKK. This approach to quantify financial impact to Ørsted is chosen, because EBITDA reflects how “increased revenue through demand for lower emissions products and services” impact our business' ability to create value for shareholders. To calculate the EBITDA figure, Ørsted uses the ‘business performance’ approach as an alternative to the results prepared in accordance with IFRS. ‘Business performance’ represents the underlying financial performance of the Group in the reporting period, as results are adjusted for temporary fluctuations in the market value of contracts (including hedging transactions) relating to other periods. Apart from this, there is no difference between business performance and the IFRS results. Figures used in calculations: A quantitative breakdown of the figures used to calculate the EBITDA effect can be found in Ørsted’s annual report 2019, p.43. The potential financial impact is the sum of EBTIDA from: - “Sites, O&M and PPA” (DKK 13.8bn) - “Construction agreements and divestment gains” (DKK 3.8bn) - “Other, incl. project development” (DKK -2.4bn) Assumptions: This calculation of potential financial impact does not depend on any specific assumptions. From 2017 to 2023, we expect an average increase in operating profit (EBITDA) from offshore and onshore wind and solar farms in operation (including O&M agreements and power purchase agreements) of 20% annually, reaching a level of DKK 25-26 billion in 2023. From 2017 to 2019, we averaged an annual growth rate of 32% in line with our objective.

### **Cost to realize opportunity**

23300000000

### **Strategy to realize opportunity and explanation of cost calculation**

Explanation of cost figure: The figures in “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. Below is a break-down of these investments: - Bioenergy: DKK 1.9bn - Onshore (wind and solar): DKK 6.2bn - Offshore (wind): DKK 15.1bn Our DKK 15.1bn investments in offshore wind in 2019 were mainly related to the Hornsea 1 and 2 offshore wind farms in the UK, the Borssele 1 & 2 wind farms in the Netherlands, and the Greater Changhua 1 & 2a wind farms in Taiwan. Strategy for offshore wind: Ørsted’s strategic ambition within offshore wind is to maintain our market leadership position and to reach 15GW of installed capacity by 2025. With our US East Coast awards of 2.9GW in 2019, we are already very close to reaching this goal, provided we take FID on all awarded projects. As an example of the concrete activities that Ørsted pursue to realize this business opportunity, we had 3,038MW offshore wind capacity under construction by the end of 2019: - Hornsea 2 in the UK (1386MW) - Borssele 1&2 in Netherlands (752 MW) - Changhua 1 and 2a in Taiwan (900MW) Case study of strategy: Situation: While Europe is the largest and most mature market for offshore wind, strong government commitments are propelling growth of offshore wind in North America and Asia-Pacific. Task: Taiwan has a target of 15GW offshore wind by 2035. Since offshore wind was expected an important component in Taiwan’s future energy supply, it is a potentially attractive market for Ørsted. Action taken to pursue this opportunity: - In 2017 Ørsted acquired 35% of the Taiwanese Formosa 1 offshore wind project (128MW). - In 2018 Ørsted was awarded capacity in the first Taiwanese grid allocation, with the Greater Changhua 1&2a offshore wind project (900MW). Outcomes of strategic actions taken: - In 2019 we inaugurated Formosa 1 in Taiwan. This is the first commercial-scale offshore wind farm in the Asia-Pacific region. The wind farm consists of 2 Siemens Gamesa 4MW turbines and 20 Siemens Gamesa 6MW turbines, located 2-6 kilometres off the coast. - In 2019, we began construction of Changhua 1 & 2a, our first large-scale offshore wind project in Taiwan. The wind farm will consist of approx 112 Siemens Gamesa 8MW turbines, located 35-50 kilometres off the coast of Changhua County. Ørsted will invest significantly in Taiwan’s transition to renewable energy with substantial impact on industrial development.

### **Comment**

Data in the column “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. We expect to invest DKK 200 billion in green energy in the period 2019-2025, of which we expect to allocate 75-85%% to Offshore.

### **Identifier**

Opp2

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Business opportunity: Onshore wind and solar energy. Ørsted develop onshore wind, solar PV and storage projects in North America, through an established execution model, managing key interfaces with top tier suppliers and contractors. We entered into the North American onshore renewables market in 2018 with the acquisition of Lincoln Clean Energy (LCE) and by the end of 2019 we own and operate four wind farms in Texas with a capacity of 1.0GW as well as a small solar farm in New Jersey. Our combined installed and under construction capacity makes us approx the 20th largest onshore wind and solar PV company in the US. Onshore wind is a growth platform where we now have a strong regional position. Onshore wind and solar PV are thus a business opportunity for Ørsted. Our strategic ambition in North America is to build a leadership position in onshore renewables, with a target of 5GW of installed capacity by 2025. Ørsted’s growing regional position in onshore renewables contributes to creating a strong foundation for reaching our strategic ambition of more than 30GW of installed renewable capacity by 2030. We have an aspiration to become a global, green energy major in a rapidly expanding global renewable energy market. As an example of concrete onshore wind and solar energy business opportunities for Ørsted, we have a strong pipeline of over 1.1GW of onshore wind and solar projects in development in the US by the end of 2019, which we are maturing in 2020. Market for onshore renewables: The global renewable energy mix is dominated by onshore wind and large-scale solar PV, which accounted for over 72% of installed capacity worldwide in 2019. Installed large-scale solar PV capacity in North America reached 51GW in 2019 and is forecast to grow by 10% per year towards 2030.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

800000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

Approach to calculate figure: Data in the column “potential financial impact” is Ørsted’s operating profit (EBITDA) from our Onshore business unit in 2019, in DKK. This approach to quantify financial impact to Ørsted is chosen, because EBITDA reflects how “increased revenue through demand for lower emissions products and services” impact our business' ability to create value for shareholders. To calculate the EBITDA figure, Ørsted uses the ‘business performance’ approach as an alternative to the results prepared in accordance with IFRS. ‘Business performance’ represents the underlying financial performance of the Group in the reporting period, as results are adjusted for temporary fluctuations in the market value of contracts (including hedging transactions) relating to other periods. Apart from this, there is no difference between business performance and the IFRS results. Figures used in calculations: A quantitative breakdown of the figures used to calculate the EBITDA effect can be found in Ørsted’s annual report 2019, p.47. The potential financial impact is the sum of EBTIDA from: - “Sites” (DKK 0.5bn) - “Production tax credits and tax attributes” (DKK 0.6bn) - “Other, incl. project development” (DKK -0.3bn) Assumptions: This calculation of potential financial impact does not depend on any specific assumptions. From 2017 to 2023, we expect an average increase in operating profit (EBITDA) from offshore and onshore wind and solar farms in operation (including O&M agreements and power purchase agreements) of 20% annually, reaching a level of DKK 25-26 billion in 2023. From 2017 to 2019, we averaged an annual growth rate of 32% in line with our objective.

### **Cost to realize opportunity**

23300000000

### **Strategy to realize opportunity and explanation of cost calculation**

The figures in “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. Below is a break-down of these investments: - Bioenergy: DKK 1.9bn - Offshore (wind): DKK 15.1bn - Onshore (wind and solar): DKK 6.2bn Our DKK 6.2bn investments in onshore wind and solar energy in 2019 were mainly related to the construction of our onshore wind farms in the US (Sage Draw, Plum Creek, Lockett, Willow Creek) and the construction of our first utility-scale solar plus battery storage project, the 420MW Permian Energy Center in Texas. Strategy for onshore wind and solar energy: Our strategic ambition in North America is to build a leadership position in onshore renewables, with a target of 5GW of installed capacity by 2025. As an example of the concrete activities that Ørsted pursue to realize this business opportunity, we had 1,091MW onshore renewables capacity under construction by the end of 2019: - Plum Creek, onshore wind farm in Nebraska (230MW) - Sage Draw, onshore wind farm in Texas (338MW) - Willow Creek, onshore wind farm in South Dakota (103MW) - Permian Energy Center, solar and battery storage in Texas (420MW) Case study of strategy: Situation: In 2017 Ørsted already had an ambitious plan for the build-out of offshore wind to maintain our global, market-leading position. Ørsted was however not active in onshore wind and solar energy. Task: We were looking into strategic opportunities for diversification of our renewable energy portfolio. Our ambition was that the company’s long-term growth should be a diversified journey combined with the ability to change our focus and direction in step with market developments. Action taken to pursue this opportunity: In 2018, we acquired Lincoln Clean Energy, a US-based developer, owner and operator of onshore wind farms. By the time of the acquisition, Lincoln Clean Energy had an operating portfolio of 813MW and a near-term portfolio of 714MW of onshore capacity in advanced stages of development. Outcomes of strategic actions taken: Onshore wind is Ørsted’s second growth platform where we now have a strong regional position, with the acquisition of Lincoln Clean Energy in the US. The transaction provides technology and market diversification. By the end of 2019 Ørsted own and operate four wind farms in Texas with a capacity of 1.0GW as well as a small solar farm in New Jersey.

### **Comment**

Data in the column “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. We expect to invest DKK 200 billion in green energy in the period 2019-2025, of which we expect to allocate 15-20% to Onshore.

### **Identifier**

Opp3

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Business opportunity: Bioenergy. Ørsted provide around one quarter of Denmark’s district heating and around one third of Denmark’s thermal power through our CHP plants, making our CHP business a leading provider of heat, power and ancillary services in Denmark. We own and operate bio-converted 6 CHP plants that have been converted to biomass, 3 heat and ancillary service plants, and 1 coal-fired CHP plant in Denmark. Ørsted’s portfolio of large bio-converted CHP plants in Denmark is a key component in the green transition of the heat and power sector in Denmark, while also supporting the power grid during times of low wind and solar generation. In recent years, our major heat customers have increasingly demanded that their deliveries to be covered by green sources. Converting our power plants from fossil fuels to sustainable biomass is thus a business opportunity for Ørsted. In 2019, we reached a key milestone relevant for bioenergy as a business opportunity: - We completed the biomass conversion of the Asnæs Power Station, which now run up to 100% on sustainable biomass. The Asnæs Power Station will provide green process steam to Novo Nordisk’s and Novozymes’ production facilities as well as green heat to the city of Kalundborg and green power to the electricity grid. Market for bioenergy: The generation of power by conventional fossil fuel-fired power stations in Europe is under pressure from declining power prices. This pressure is seen in Denmark and is relevant for Ørsted. The pressure on earnings from power generation has increased Ørsted’s focus on the generation of district heating from sustainable biomass, which represents a stable source of income due to the long-term heat contracts with large urban communities.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Low

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

1500000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

Approach to calculate figure: Data in the column “potential financial impact” is Ørsted’s operating profit (EBITDA) from our Markets & Bioenergy business unit in 2019, in DKK. This approach to quantify financial impact to Ørsted is chosen, because EBITDA reflects how “increased revenue through demand for lower emissions products and services” impact our business' ability to create value for shareholders. To calculate the EBITDA figure, Ørsted uses the ‘business performance’ approach as an alternative to the results prepared in accordance with IFRS. ‘Business performance’ represents the underlying financial performance of the Group in the reporting period, as results are adjusted for temporary fluctuations in the market value of contracts (including hedging transactions) relating to other periods. Apart from this, there is no difference between business performance and the IFRS results. Figures used in calculations: A quantitative breakdown of the figures used to calculate the EBITDA effect can be found in Ørsted’s annual report 2019, p.49. The potential financial impact is the sum of EBTIDA from: - “CHP plants” (DKK 1.2bn) - “Gas Markets & Infrastructure” (DKK 0.4bn) - “LNG” (DKK -1.0bn) - “Distribution, B2C and city light” (DKK 1.3bn) - “Other, incl. project development” (DKK -0.4bn) Assumptions: This calculation of potential financial impact does not depend on any specific assumptions.

### **Cost to realize opportunity**

23300000000

### **Strategy to realize opportunity and explanation of cost calculation**

Explanation of cost figure: The figures in “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. Below is a break-down of these investments: - Offshore (wind): DKK 15.1bn - Onshore (wind and solar): DKK 6.2bn - Bioenergy: DKK 1.9bn Our DKK 1.9bn investments in bioenergy in 2019 were mainly related to the instalment of new smart meters, maintenance of the power distribution grid, and the bioconversion of Asnæs Power Station in Kalundborg, Denmark, from coal to sustainable biofuel. Strategy for bioenergy: Complete the conversion of our Danish CHP plants to sustainable biomass and phase out coal in 2023. We operate all our plants smartly and safely and prepare for a transition towards a more electrified green district heating system. Also, we continue to explore the potential for growth and value creation within waste-to-energy technologies. Case study of strategy: Situation: Only a decade ago, Ørsted’s coal-fired power plants were still a significant part of Danish carbon emissions. At the same time, we had just launched our first strategy to transform our business from fossil fuels to green energy, because we strongly believed the future of energy was green Task: We were faced with the task to decarbonise our heavy fleet of CHP plants while at the same time continuing to provide flexible heat and power at a competitive price. Among politicians and our municipal district heating customers, there was widespread support for wooden biomass as the most climate-friendly alternative to coal. Action taken to pursue this opportunity: To phase out coal, Ørsted decided to convert our power stations to sustainable biomass. Outcomes of strategic actions taken: We have already completed the biomass conversion of our power stations Asnæs, Avedøre, Skærbæk, Studstrup and Herning, which produce green heat and power with sustainable biomass as a fuel. Sustainable biomass has allowed us to almost fully retire coal over the past decade. In 2019, we completed the most recent biomass conversion – of the Asnæs Power Station, which now run up to 100% on sustainable biomass. The new turbine has a maximum capacity of 25MW power and a total of 129MJ/s process steam and district heating. The Asnæs Power Station will provide green process steam to Novo Nordisk’s and Novozymes’ production facilities as well as green heat to the city of Kalundborg and green power to the electricity grid.

### **Comment**

Data in the column “cost to realize opportunity” is Ørsted’s gross investments in renewable energy in 2019, in DKK. We expect to invest DKK 200 billion in green energy in the period 2019-2025, of which we expect to allocate 0-5% to Markets & Bioenergy.

## **C3. Business Strategy**

## **C3.1**

### **(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

## **C3.1a**

### **(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

Yes, quantitative

## **C3.1b**

### **(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.**

|  |  |
| --- | --- |
| **Climate-related scenarios and models applied** | **Details** |
| 2DS  RCP 2.6  IEA B2DS  MESSAGE-GLOBIOM | i) How the selected scenarios were identified: We have committed to an ambitious target of reducing the carbon intensity of our energy generation 98% by 2025 compared with 2006, and to reduce our scope 3 emissions 50% by 2032 compared with 2018. To validate our targets, we have worked with the SBTi and used their methodology, the Sectoral Decarbonization Approach (SDA). The SDA is informed by climate science and allows companies to set emission reduction targets in line with a “2°C pathway”, a “well below 2°C pathway” or a “1.5°C pathway”. Ørsted’s targets have been approved by the SBTi and classified as in line with a 1.5°C decarbonization pathway for the power generation sector. ii) Description of the time horizon considered: The IEA scenarios estimate an overall carbon budget for the energy sector with a time horizon up to 2050. This time horizon is relevant for Ørsted, as climate science has concluded that the cumulative emissions up to 2050 and the emissions levels in 2050 are robust indicators of the likelihood of meeting a 1.5°C target. iii) Description of the areas of organization considered as part of the scenario analysis: Ørsted’s entire organization has been considered in our Science Based Target and in aligning our emissions reduction trajectory with IEA scenarios for the energy sector. Emissions from our energy production are covered by our scope 1 and 2 target, which is to generate electricity with a carbon intensity of 10g CO2e/kWh by 2025. Emissions from our value chain are covered by our scope 3 target, to reduce scope 3 emissions 50% by 2032 from a 2018 base year. iv) Summary of the results of the scenario analysis: We confirmed that our strategic target to produce heat and power at 10g CO2e/kWh by 2025 is more ambitious than the sectoral targets for the energy sector using the SDA methodology. The Science Based Targets initiative (SBTi) have approved our 2025 target as a Science Based Target. Being aligned with climate science aligns us with the Paris Agreement and Sustainable Development Goal (SDG) 13 on climate action. v) Description of how the results of the scenario analysis have informed our strategy: Our greenhouse gas reduction target reflects the transformation of our business model to becoming a green energy company. The results of the scenario analysis have confirmed that our business objectives and strategy are aligned with climate science. The heading for our 2025 strategy is ’Green growth’, and we have an ambition to lead the green energy transformation. All our investments are aimed at our green energy portfolio. vi) Case study of how the results of the scenario analysis have influenced our strategy: Situation: The scientific background of the climate scenarios is clear. To stay within 1.5ºC global warming by 2100, the world needs to halve global carbon emissions by 2030 and reduce emissions to net-zero by 2050 at the latest. Task: In Ørsted we therefore set ourselves the task to address the carbon emissions across our entire carbon footprint and align these emissions with the 1.5ºC pathway. Action taken: In 2019 we committed to a net-zero emissions target in our total carbon footprint by 2040, a decade faster than science demands. As a milestone, we have a target to reduce emissions from our supply chain and energy trading activities (scope 3) by 50% in 2032. Outcomes: To meet our targets, we are gradually phasing out trading of natural gas and work with our strategic suppliers to decarbonise our supply chain. In 2020 we launched our supplier engagement programme, with the aim to achieve a carbon neutral supply chain by 2040. In 2020, we are for the first time using the CDP supply chain programme to engage key suppliers on climate. From 2018 to 2019, results have seen our scope 3 emissions reduced from 36,2 to 34,6 million tCO2e. |

## **C3.1d**

### **(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.**

|  |  |  |
| --- | --- | --- |
|  | **Have climate-related risks and opportunities influenced your strategy in this area?** | **Description of influence** |
| Products and services | Yes | i) Description of how our strategy in this area has been influenced by climate-related risks and opportunities Over the past decade, Ørsted has undergone a major transformation from fossil to renewable energy. From a green energy share of 17% in 2006, Ørsted was at 86% by the end of 2019. Time horizon(s) it covers: - Short-term (0-2 years), as we have taken immediate action - Medium-term (2-5 years), as our target year is 2025 ii) Case study of a substantial strategic decision made for products and services Situation: In 2016, Ørsted’s green transformation was already underway. We had established ourselves as the market leader within offshore wind, and we had reduced our carbon emissions by 52% from 2006. However, Ørsted still had an upstream oil and gas business, still used coal at our power plants, and we were not yet active in onshore wind and solar energy. Task: Ørsted’s strategic ambition in 2016 was to become world-leading in green energy. This was the task we gave ourselves. Action taken: - Bioenergy: In 2016 we set a target to only source certified sustainable wooden biomass by 2020, and in 2017 we decided to completely phase out our use of coal by 2023. - Oil and gas: In 2017 Ørsted divested our upstream oil and gas business to INEOS. The divestment allowed us to focus our investment programme on green energy. - Onshore renewables: In 2018, we announced the acquisition of Lincoln Clean Energy. This acquisition serves as our platform for creating a leading North American onshore renewables business, spanning onshore wind, solar energy and storage. - Offshore wind: In 2018 we announced the acquisition of Deepwater Wind. This acquisition helped create a leading offshore wind platform in the US together with Ørsted’s existing US organisation. Outcomes: Together these actions were important steps in shaping our portfolio towards becoming one of the world’s leading renewable energy companies. Today, we are the market leader within offshore wind, we are on track to phase out coal, and we are building a growing regional US leadership position comprising onshore wind, solar PV, and storage. All our investments are aimed at our green energy portfolio. We have demonstrated that a rapid transformation from fossil to renewable energy is both possible and profitable, and our green energy share was 86% in 2019 and on track to reach 99% by 2025. |
| Supply chain and/or value chain | Yes | i) Description of how our strategy for supply chain and value chain has been influenced by climate-related risks and opportunities In 2019 we embarked on the next phase in our decarbonisation journey to address the carbon emissions across our entire carbon footprint and align these emissions with the 1.5ºC pathway. We have therefore set a strategic target to reduce emissions from our supply chain and energy trading activities (scope 3) by 50% in 2032 with 2018 as a base year. Our target has been approved by the SBTi. Time horizon(s) it covers: - Short-term (0-2 years), as we are taking immediate action - Long-term (5-40 years), as our target year is 2032 ii) Case study of a substantial strategic decision made for supply chain Situation: The scientific background of the climate scenarios is clear. To stay within 1.5ºC global warming by 2100, the world needs to halve global carbon emissions by 2030 and reduce emissions to net-zero by 2050 at the latest. Task: In Ørsted we therefore set ourselves the task to address the carbon emissions across our entire carbon footprint and align these emissions with the 1.5ºC pathway. Action taken: In 2019 we committed to a net-zero emissions target in our total carbon footprint by 2040, a decade faster than science demands. As a milestone, we have a target to reduce emissions from our supply chain and energy trading activities (scope 3) by 50% in 2032. Outcomes: To meet our targets, we are gradually phasing out trading of natural gas and work with our strategic suppliers to decarbonise our supply chain. In 2020 we launched our supply chain decarbonization programme, with the aim to achieve a carbon neutral supply chain by 2040. In 2020, we are for the first time using the CDP supply chain programme to engage key suppliers on climate. From 2018 to 2019, results have seen our scope 3 emissions reduced from 36,2 to 34,6 million tCO2e. |
| Investment in R&D | Yes | i) Description of how our strategy in this area has been influenced by climate-related risks and opportunities In 2013 we set a target for reducing the cost of offshore wind by 35-40% in 2020 compared to 2012. As the market leader, we strive to reduce the cost of offshore wind energy because cheaper green energy technologies will increase the share of renewables in the global energy mix. Time horizon(s) it covers: - Short-term (0-2 years), as we are taking immediate action ii) Case study of a substantial strategic decision made for R&D Situation: In 2012 newly build offshore wind was not cost competitive with fossil energy. Ørsted has been a pioneer in the offshore wind industry since we built the world’s first offshore wind farm in 1991. Task: In 2013 we set a target for reducing the cost of offshore wind by 35-40% in 2020 compared to 2012. As the market leader, we strive to reduce the cost of offshore wind energy because cheaper green energy technologies will increase the share of renewables in the global energy mix. Action taken: We have reduced the cost of offshore wind energy in cooperation with our partners in the energy sector, among other things through continuous innovation of wind turbines and blades, improved installation methods, advanced foundation designs, and a growing and competitive supply chain. Outcomes: Since 2012, the cost of offshore wind has been reduced by up to 60% in Northwestern Europe. Offshore wind energy is now cheaper than new-built coal or gas capacity in two thirds of the world. We are making a dedicated effort to further reduce the cost of power from offshore wind farms, and we will keep pioneering and innovating the industry. The investments we have made have been instrumental in making offshore wind a scalable technology that can compete on cost. This has meant that offshore wind has gone from a niche to a global and rapidly growing industry. |
| Operations | Yes | i) Description of how our strategy for operations has been influenced by climate-related risks and opportunities In 2009, we decided not to build new coal-fired power plants, and in 2017, we decided to fully phase out coal in 2023. Time horizon(s) it covers: - Short-term (0-2 years), as we have taken immediate action - Medium-term (2-5 years), as our target year is 2023 ii) Case study of a substantial strategic decision made for operations Situation: Only a decade ago, Ørsted’s coal-fired power plants were still a significant part of Danish carbon emissions. At the same time, we had just launched our first strategy to transform our business from fossil fuels to green energy, because we strongly believed the future of energy was green Task: We were faced with the task to decarbonise our heavy fleet of CHP plants while at the same time continuing to provide flexible heat and power at a competitive price. Among politicians and our municipal district heating customers, there was widespread support for wooden biomass as the most climate-friendly alternative to coal. Action taken: To phase out coal, Ørsted decided to convert our power stations to sustainable biomass. In 2009, we decided not to build new coal-fired power plants, and in 2017, we decided to fully phase out coal in 2023. Outcomes: We have already completed the biomass conversion of our power stations Asnæs, Avedøre, Skærbæk, Studstrup and Herning, which produce green heat and power with sustainable biomass as a fuel. Sustainable biomass has allowed us to almost fully retire coal over the past decade. In 2019, we completed the most recent biomass conversion – of the Asnæs Power Station, which now run up to 100% on sustainable biomass. The new turbine has a maximum capacity of 25MW power and a total of 129MJ/s process steam and district heating. The Asnæs Power Station will provide green process steam to Novo Nordisk’s and Novozymes’ production facilities as well as green heat to the city of Kalundborg and green power to the electricity grid. In just over ten years, we will have gone from being one of the most coal-intensive utilities in Europe to having a completely coal-free generation in 2023. |

## **C3.1e**

### **(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

|  |  |  |
| --- | --- | --- |
|  | **Financial planning elements that have been influenced** | **Description of influence** |
| Row 1 | Revenues  Direct costs  Capital expenditures  Capital allocation  Acquisitions and divestments  Access to capital  Assets  Liabilities | i) Case study of how climate-related risks and opportunities have influenced our financial planning: Acquisitions and divestments Situation: In 2016, Ørsted’s green transformation was already underway. We had established ourselves as the market leader within offshore wind, and we had reduced our carbon emissions by 52% from 2006. However, Ørsted still had an upstream oil and gas business, still used coal at our power plants, and we were not yet active in onshore wind and solar energy. Task: Ørsted’s strategic ambition in 2016 was to become world-leading in green energy. This was the task we gave ourselves. Action taken to pursue this financial planning: - Bioenergy: In 2016 we set a target to only source certified sustainable wooden biomass by 2020, and in 2017 we decided to completely phase out our use of coal by 2023. - Oil and gas: In 2017 Ørsted divested our upstream oil and gas business to INEOS. The divestment allowed us to focus our investment programme on green energy. - Onshore renewables: In 2018, we announced the acquisition of Lincoln Clean Energy. This acquisition serves as our platform for creating a leading North American onshore renewables business, spanning onshore wind, solar energy and storage. - Offshore wind: In 2018 we announced the acquisition of Deepwater Wind. This acquisition helped create a leading offshore wind platform in the US together with Ørsted’s existing US organisation. Outcomes of financial planning: Together these actions were important steps in shaping our portfolio towards becoming one of the world’s leading renewable energy companies. Today, we are the market leader within offshore wind, we are on track to phase out coal, and we are building a growing regional US leadership position comprising onshore wind, solar PV, and storage. All our investments are aimed at our green energy portfolio. We have demonstrated that a rapid transformation from fossil to renewable energy is both possible and profitable, and our green energy share was 86% in 2019 and on track to reach 99% by 2025. In financial terms, we have shifted our capital base profoundly from fossil fuels to renewables. ii) Time horizon covered by the financial planning The time horizon for these examples of our acquisitions and divestments is “medium-term” (2-5 years), as all highlighted acquisitions and divestments were completed within the period from 2016-2019. However, climate change has also impacted the long-term financial planning in Ørsted. All our investments are aimed at our green energy portfolio, and from 2019 to 2025 we expect to invest DKK 200 billion in renewable energy. With our partners, we invested approx DKK 193 billion in green energy between 2010-2019 and almost 90% were in offshore wind. |

## **C3.1f**

### **(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

## **C4. Targets and performance**

## **C4.1**

### **(C4.1) Did you have an emissions target that was active in the reporting year?**

Both absolute and intensity targets

## **C4.1a**

### **(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

### **Target reference number**

Abs 1

### **Year target was set**

2019

### **Target coverage**

Company-wide

### **Scope(s) (or Scope 3 category)**

Scope 3 (upstream & downstream)

### **Base year**

2018

### **Covered emissions in base year (metric tons CO2e)**

36234000

### **Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

### **Target year**

2032

### **Targeted reduction from base year (%)**

50

### **Covered emissions in target year (metric tons CO2e) [auto-calculated]**

18117000

### **Covered emissions in reporting year (metric tons CO2e)**

34604000

### **% of target achieved [auto-calculated]**

8.99707457084506

### **Target status in reporting year**

New

### **Is this a science-based target?**

Yes, this target has been approved as science-based by the Science-Based Targets initiative

### **Please explain (including target coverage)**

This is a target defined and SBTi approved in 2019 based on 2018 as the base year. We are on track with progress on the target in 2020.

## **C4.1b**

### **(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

### **Target reference number**

Int 1

### **Year target was set**

2019

### **Target coverage**

Company-wide

### **Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

### **Intensity metric**

Other, please specify (g CO2e per kWh (power and heat generated))

### **Base year**

2006

### **Intensity figure in base year (metric tons CO2e per unit of activity)**

462

### **% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

### **Target year**

2025

### **Targeted reduction from base year (%)**

97.83

### **Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]**

10.0254

### **% change anticipated in absolute Scope 1+2 emissions**

-97

### **% change anticipated in absolute Scope 3 emissions**

0

### **Intensity figure in reporting year (metric tons CO2e per unit of activity)**

65

### **% of target achieved [auto-calculated]**

87.8367943685331

### **Target status in reporting year**

New

### **Is this a science-based target?**

Yes, this target has been approved as science-based by the Science Based Targets initiative

### **Please explain (including target coverage)**

The target was defined and SBTi approved in 2019. We include total scope 1+2 (marked based) from all of Ørsted in the numerator. Our target is to reduce the greenhouse gas intensity of our energy generation and operations (scope 1-2) to 10 gCO2e/kWh power and heat, corresponding to a reduction of 98%.

## **C4.2**

### **(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Target(s) to increase low-carbon energy consumption or production

## **C4.2a**

### **(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

### **Target reference number**

Low 1

### **Year target was set**

2019

### **Target coverage**

Company-wide

### **Target type: absolute or intensity**

Absolute

### **Target type: energy carrier**

Electricity

### **Target type: activity**

Consumption

### **Target type: energy source**

Renewable energy source(s) only

### **Metric (target numerator if reporting an intensity target)**

Percentage

### **Target denominator (intensity targets only)**

<Not Applicable>

### **Base year**

2019

### **Figure or percentage in base year**

100

### **Target year**

2025

### **Figure or percentage in target year**

100

### **Figure or percentage in reporting year**

100

### **% of target achieved [auto-calculated]**

<Calculated field>

### **Target status in reporting year**

New

### **Is this target part of an emissions target?**

Yes, this action supports our target to reduce the greenhouse gas intensity of our energy generation and operations (scope 1-2) to 10 gCO2e/kWh power and heat, corresponding to a reduction of 98%.

### **Is this target part of an overarching initiative?**

Science-based targets initiative

### **Please explain (including target coverage)**

Target covers all power for own consumption.

## **C4.3**

### **(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

## **C4.3a**

### **(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

|  |  |  |
| --- | --- | --- |
|  | **Number of initiatives** | **Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked \*)** |
| Under investigation | 30 |  |
| To be implemented\* | 0 | 0 |
| Implementation commenced\* | 9 | 345 |
| Implemented\* | 26 | 1271 |
| Not to be implemented | 4 |  |

## **C4.3b**

### **(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in production processes | Process optimization |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

689

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

1970000

### **Investment required (unit currency – as specified in C0.4)**

1150000

### **Payback period**

<1 year

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in buildings | Lighting |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

77

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

210000

### **Investment required (unit currency – as specified in C0.4)**

1280000

### **Payback period**

4-10 years

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in buildings | Heating, Ventilation and Air Conditioning (HVAC) |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

264

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

1800000

### **Investment required (unit currency – as specified in C0.4)**

2460000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

11-15 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Low-carbon energy generation | Solar PV |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

16

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

20000

### **Investment required (unit currency – as specified in C0.4)**

200000

### **Payback period**

4-10 years

### **Estimated lifetime of the initiative**

21-30 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in buildings | Insulation |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

19

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

140000

### **Investment required (unit currency – as specified in C0.4)**

590000

### **Payback period**

4-10 years

### **Estimated lifetime of the initiative**

21-30 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in buildings | Building Energy Management Systems (BEMS) |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

131

### **Scope(s)**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

1100000

### **Investment required (unit currency – as specified in C0.4)**

2560000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

>30 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in production processes | Process optimization |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

76

### **Scope(s)**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in C0.4)**

80000

### **Investment required (unit currency – as specified in C0.4)**

60000

### **Payback period**

<1 year

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

## **C4.3c**

### **(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

|  |  |
| --- | --- |
| **Method** | **Comment** |
| Financial optimization calculations | To continually optimize energy consuming processes and improve operational excellence, we calculate if investment in new technology is financially viable. |

## **C4.5**

### **(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

## **C4.5a**

### **(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

### **Level of aggregation**

Product

### **Description of product/Group of products**

Green power and heat generation: - Power generation from offshore wind - Power generation from onshore wind and solar PV - Heat and power generation from biomass on thermal CHP plants

### **Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product and avoided emissions

### **Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (GHG protocol, UNFCCC methodology)

### **% revenue from low carbon product(s) in the reporting year**

67

### **% of total portfolio value**

<Not Applicable>

### **Asset classes/ product types**

<Not Applicable>

### **Comment**

Our %-revenue from low carbon products is calculated based on the KPI 'green share of energy' . This means that the revenue from our Offshore (OF) and Onshore (ON) business units are calculated as 100% green for 2019, and the revenue from our generation and sale of power, heat and steam in our Markets & Bioenergy (M&B) business unit is calculated as 68% green for 2019 (because our green energy share of thermal heat and power generation was 68% in 2019).

## **C-EU4.6**

### **(C-EU4.6) Describe your organization’s efforts to reduce methane emissions from your activities.**

i) In Denmark, Ørsted owns and operates 6 CHP plants that have been converted to biomass, 3 heat and ancillary service plants, and 1 coal-fired CHP plant. At six of these power plants, we have natural gas systems that can cause emissions of methane. Emissions of methane from natural gas systems at the power plants are relatively low in general. Of Ørsted's total power and heat generation in 2019, 5% was produced from natural gas. In June 2018 we made a decision to divest our ownership share in the gas-fired Enecogen power plant in the Netherlands, as a step in our strategy to divest non-core assets and focus entirely on green energy.

Through several initiatives at our Danish power plants, we systematically reduce our emissions of methane:

- Our natural gas systems are closely kept under surveillance for tightness during operation and they are intensely examined for leaks at least once a year.

- Most of our natural gas piping is in indoors areas where the atmosphere is monitored by gas detectors.

- Essential valves tightness is automatically checked by startup of the burner. To reduce loss of gas during check of valves tightness, the gas volume between tested valves is reduced to technical minimum.

**ii) An example of our efforts to reduce methane emissions**

At our Avedøre combined heat and power plant, we have identified 350m pipe sections, where it has been possible to avoid yearly flushing of the system. This initiative reduces our release of natural gas to the atmosphere by approximately 2,000 Nm3 annually, thereby also reducing methane emissions.

## **C5. Emissions methodology**

## **C5.1**

### **(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

### **Scope 1**

### **Base year start**

January 1 2006

### **Base year end**

December 31 2006

### **Base year emissions (metric tons CO2e)**

18300000

### **Comment**

### **Scope 2 (location-based)**

### **Base year start**

January 1 2006

### **Base year end**

December 31 2006

### **Base year emissions (metric tons CO2e)**

200000

### **Comment**

### **Scope 2 (market-based)**

### **Base year start**

January 1 2006

### **Base year end**

December 31 2006

### **Base year emissions (metric tons CO2e)**

200000

### **Comment**

## **C5.2**

### **(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## **C6. Emissions data**

## **C6.1**

### **(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?**

### **Reporting year**

### **Gross global Scope 1 emissions (metric tons CO2e)**

1846000

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **C6.2**

### **(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.**

### **Row 1**

### **​Scope 2, location-based​**

We are reporting a Scope 2, location-based figure

### **Scope 2, market-based**

We are reporting a Scope 2, market-based figure

### **Comment**

## **C6.3**

### **(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?**

### **Reporting year**

### **Scope 2, location-based**

123000

### **Scope 2, market-based (if applicable)**

4000

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **C6.4**

### **(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

## **C6.5**

### **(C6.5) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.**

### **Purchased goods and services**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

244000

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from purchased goods and services are calculated based on spend reports from our SAP system. All spends are divided into categories where relevant emissions factors are used to calculate the GHG emissions from each spend category. We use UK Defra (Department for Environment, Food & Rural Affairs) GHG emission factors.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Capital goods**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

740

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from capital goods are calculated based on life cycle data from our suppliers. We have data for carbon emissions from cradle to operation and maintenance for single wind turbines. We then calculate the total emission from all wind turbines in the wind farms that pass commercial operation date within the year. This method results in total emissions being reported correctly over time, but it is not fully accurate in the individual years.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Fuel-and-energy-related activities (not included in Scope 1 or 2)**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

3217000

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from fuel-related activities are calculated based on actual fuel consumption and power sales as reported in our ESG consolidation system. The fuel consumptions are multiplied with the relevant emissions factors to calculate the GHG emissions. We use UK Defra (Department for Environment, Food & Rural Affairs) GHG emission factors. We include all power sales to end customers and use separate emission factors for green and non-green power sales.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Upstream transportation and distribution**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

GHG emissions from upstream transportation and distribution are included in the emissions factors we use for purchases and sales.

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

400

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from waste generated in operations are calculated based on actual waste generated as reported in our ESG consolidation system. Waste amounts are multiplied with the relevant emissions factors to calculate the GHG emissions. We use UK Defra (Department for Environment, Food & Rural Affairs) GHG emission factors.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Business travel**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

13000

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from business travel are calculated based on km allowances for employee travel in own cars. GHG emissions from airplane travel is provided by our travel agent.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Employee commuting**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

9000

### **Emissions calculation methodology**

GHG Protocol. We use estimates for distance travelled and travel type for employee commuting. For each travel category we calculate using UK Defra emission factors.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Upstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

GHG Protocol. We include upstream leased assets in our scope 1 and 2 reporting due to implementation of IFRS16.

### **Downstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

3000

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from downstream transportation and distribution are calculated based on actual volumes of residual products generated from our thermal energy plants. The transportation of the residual products is estimated based on enduser locations and the volumes and distance transported are multiplied with relevant GHG emissions factors for transportation.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **Processing of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

Ørsted’s products (heat, power and gas) are not processed further. Processing of sold products is therefore not relevant. Ørsted does not sell intermediate products.

### **Use of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

30377000

### **Emissions calculation methodology**

GHG Protocol. The scope 3 emissions from use of sold products are calculated based on actual sales of gas (to both end-users and wholesale) as reported in our ESG consolidation system. The gas sale is divided into natural gas, LNG gas and biogas and the GHG emissions from use is calculated using GHG emission factors for the three types of gas sold. We use UK Defra (Department for Environment, Food & Rural Affairs) GHG emission factors.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

### **End of life treatment of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

Ørsted sells heat, gas and power which have no waste management after use. End of life treatment of sold products is therefore not relevant.

### **Downstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

GHG Protocol. Ørsted does not lease assets to others. Downstream leased assets is therefore not relevant.

### **Franchises**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

GHG Protocol. Ørsted does not have franchise activities.

### **Investments**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

GHG Protocol. The category investments is not relevant for Ørsted. We interpret the category to be mostly relevant for financial institutions.

### **Other (upstream)**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

We answer directly to all 15 GHG scope 3 categories and do not have anything left for "Other".

### **Other (downstream)**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

We answer directly to all 15 GHG scope 3 categories and do not have anything left for "Other".

## **C6.7**

### **(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

Yes

## **C6.7a**

### **(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

|  |  |  |
| --- | --- | --- |
|  | **CO2 emissions from biogenic carbon (metric tons CO2)** | **Comment** |
| Row 1 | 3736000 | The GHG emissions from biologically sequestered carbon is calculated based on our measured consumption of biomass as fuel for our thermal heat and power plants and UK Defra GHG emission factors for woody biomass. |

## **C6.10**

### **(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

### **Intensity figure**

0.000027

### **Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

1850000

### **Metric denominator**

unit total revenue

### **Metric denominator: Unit total**

67842000000

### **Scope 2 figure used**

Market-based

### **% change from previous year**

41

### **Direction of change**

Decreased

### **Reason for change**

The 41% decrease in the scope 1 and 2 emissions intensity is the result of Ørsted's efforts to pursue our strategic green targets. More specifically the 41% decrease is caused by emission reduction activities, such as our increased generation of wind-based power and our continued conversion from coal to biomass in the thermal production of heat and power. In 2019, we completed the most recent biomass conversion – of the Asnæs Power Station, which now run up to 100% on sustainable biomass. Note: Revenue data are from the income statement (business performance) in the annual report 2019, page 37.

## **C7. Emissions breakdowns**

## **C7.1**

### **(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

## **C7.1a**

### **(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

|  |  |  |
| --- | --- | --- |
| **Greenhouse gas** | **Scope 1 emissions (metric tons of CO2e)** | **GWP Reference** |
| CO2 | 1820600 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| N2O | 13000 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CH4 | 11400 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| SF6 | 800 | IPCC Fifth Assessment Report (AR5 – 100 year) |

## **C-EU7.1b**

### **(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Gross Scope 1 CO2 emissions (metric tons CO2)** | **Gross Scope 1 methane emissions (metric tons CH4)** | **Gross Scope 1 SF6 emissions (metric tons SF6)** | **Total gross Scope 1 emissions (metric tons CO2e)** | **Comment** |
| Fugitives | 0 | 17 | 0.03 | 1258 |  |
| Combustion (Electric utilities) | 1766876 | 135 | 0 | 1784237 |  |
| Combustion (Gas utilities) | 6661 | 16 | 0 | 7140 |  |
| Combustion (Other) | 0 | 0 | 0 | 0 |  |
| Emissions not elsewhere classified | 47056 | 240 | 0 | 53163 |  |

## **C7.2**

### **(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

|  |  |
| --- | --- |
| **Country/Region** | **Scope 1 emissions (metric tons CO2e)** |
| Denmark | 1810000 |
| United Kingdom of Great Britain and Northern Ireland | 29000 |
| Germany | 7000 |

## **C7.3**

### **(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

## **C7.3a**

### **(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

|  |  |
| --- | --- |
| **Business division** | **Scope 1 emissions (metric ton CO2e)** |
| Offshore | 40000 |
| Markets & Bioenergy | 1805000 |
| Corporate Functions | 1000 |
| Onshore | 0 |

## **C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4**

### **(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Gross Scope 1 emissions, metric tons CO2e** | **Net Scope 1 emissions , metric tons CO2e** | **Comment** |
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Electric utility activities | 1824000 | <Not Applicable> | Scope 1 emissions from power plants, offshore wind farms, onshore wind farms and solar plants (offices, gas facilities, oil facilities and electricity distribution excluded). |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (midstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C7.9**

### **(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

## **C7.9a**

### **(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Change in emissions (metric tons CO2e)** | **Direction of change** | **Emissions value (percentage)** | **Please explain calculation** |
| Change in renewable energy consumption | 1664000 | Decreased | 46 | This line summarizes our complete data for our green transformation from fossil energy to renewable energy. Last year 1,664,000 tCO2e were reduced by our emissions reduction projects, and our total scope 1 and location based scope 2 emissions in the previous year was 3,633,000 tCO2e, therefore we arrived at 46% through (1,664,000/3,633,000)\*100=46% |
| Other emissions reduction activities | 0 | No change | 0 | Last year 0 tCO2e were reduced by our emissions reduction projects, and our total scope 1 and location based scope 2 emissions in the previous year was 3,633,000 tCO2e, therefore we arrived at 0% through (0/3,633,000)\*100= 0% |
| Divestment |  | <Not Applicable> |  |  |
| Acquisitions |  | <Not Applicable> |  |  |
| Mergers |  | <Not Applicable> |  |  |
| Change in output |  | <Not Applicable> |  |  |
| Change in methodology |  | <Not Applicable> |  |  |
| Change in boundary |  | <Not Applicable> |  |  |
| Change in physical operating conditions |  | <Not Applicable> |  |  |
| Unidentified |  | <Not Applicable> |  |  |
| Other |  | <Not Applicable> |  |  |

## **C7.9b**

### **(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## **C8. Energy**

## **C8.1**

### **(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 5% but less than or equal to 10%

## **C8.2**

### **(C8.2) Select which energy-related activities your organization has undertaken.**

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertook this energy-related activity in the reporting year** |
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | Yes |
| Consumption of purchased or acquired steam | No |
| Consumption of purchased or acquired cooling | No |
| Generation of electricity, heat, steam, or cooling | Yes |

## **C8.2a**

### **(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Heating value** | **MWh from renewable sources** | **MWh from non-renewable sources** | **Total (renewable and non-renewable) MWh** |
| Consumption of fuel (excluding feedstock) | LHV (lower heating value) | 10627556 | 6039990 | 16667546 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 647795 | 0 | 647795 |
| Consumption of purchased or acquired heat | <Not Applicable> | 0 | 20847 | 20847 |
| Consumption of purchased or acquired steam | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 0 | <Not Applicable> | 0 |
| Total energy consumption | <Not Applicable> | 11275351 | 6060837 | 17336188 |

## **C8.2b**

### **(C8.2b) Select the applications of your organization’s consumption of fuel.**

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertakes this fuel application** |
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of heat | Yes |
| Consumption of fuel for the generation of steam | No |
| Consumption of fuel for the generation of cooling | No |
| Consumption of fuel for co-generation or tri-generation | Yes |

## **C8.2c**

### **(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

### **Fuels (excluding feedstocks)**

Other, please specify (Biomass (wood pellets, wood chips etc.))

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

10627556

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

0

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

10627556

### **Emission factor**

0

### **Unit**

metric tons CO2e per GJ

### **Emissions factor source**

Default factor for CO2 emissions-reporting of CO2 emissions for 2019, the Danish Energy Agency. https://ens.dk/sites/ens.dk/files/CO2/standardfaktorer\_for\_2019.pdf

### **Comment**

### **Fuels (excluding feedstocks)**

Coal

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

3928817

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

0

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

3928817

### **Emission factor**

0.09404

### **Unit**

metric tons CO2e per GJ

### **Emissions factor source**

We generally use default factors for CO2 emissions-reporting of CO2 emissions for 2019, the Danish Energy Agency (see link below). But for coal we adjust the emission factor based on actual chemical analyses for coal samples. The difference between the actual result and a 100% use of default factors is minor (app. in the order of +/- zero to one percent on an annual basis). https://ens.dk/sites/ens.dk/files/CO2/standardfaktorer\_for\_2019.pdf

### **Comment**

### **Fuels (excluding feedstocks)**

Natural Gas

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

1959738

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

182920

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

1776818

### **Emission factor**

0.05654

### **Unit**

metric tons CO2e per GJ

### **Emissions factor source**

Default factor for CO2 emissions-reporting of CO2 emissions for 2019, the Danish Energy Agency. https://ens.dk/sites/ens.dk/files/CO2/standardfaktorer\_for\_2019.pdf

### **Comment**

### **Fuels (excluding feedstocks)**

Fuel Oil Number 1

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

151436

### **MWh fuel consumed for self-generation of electricity**

2502

### **MWh fuel consumed for self-generation of heat**

0

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

148934

### **Emission factor**

0.07942

### **Unit**

metric tons CO2e per GJ

### **Emissions factor source**

Default factor for CO2 emissions-reporting of CO2 emissions for 2019, the Danish Energy Agency. https://ens.dk/sites/ens.dk/files/CO2/standardfaktorer\_for\_2019.pdf

### **Comment**

## **C-EU8.2d**

### **(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.**

### **Coal – hard**

### **Nameplate capacity (MW)**

1019

### **Gross electricity generation (GWh)**

2654

### **Net electricity generation (GWh)**

2566

### **Absolute scope 1 emissions (metric tons CO2e)**

1326000

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

500

### **Comment**

The gross electricity, net electricity, scope 1 emissions and scope 1 emissions intensity are all calculated based on heat and power totals. Ørsted does not have public accounting policies for allocating fuel consumption and greenhouse gas emissions between heat and power generation. So the data in the lines above covers both heat and power generation (and not electricity alone). The CO2e intensity is calculated based on gross generation. When calculating the fuel specific scope 1 emissions we use reported CO2 emissions from the power stations and split them on the individual fuels using the emission factors from the Danish Energy Agency and distribute the rest (0.3%) between the fuels based on a weighted calculation.

### **Lignite**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Oil**

### **Nameplate capacity (MW)**

734

### **Gross electricity generation (GWh)**

90

### **Net electricity generation (GWh)**

87

### **Absolute scope 1 emissions (metric tons CO2e)**

43000

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

478

### **Comment**

The gross electricity, net electricity, scope 1 emissions and scope 1 emissions intensity are all calculated based on heat and power totals. Ørsted does not have public accounting policies for allocating fuel consumption and greenhouse gas emissions between heat and power generation. So the data in the lines above covers both heat and power generation (and not electricity alone). The CO2e intensity is calculated based on gross generation. When calculating the fuel specific scope 1 emissions we use reported CO2 emissions from the power stations and split them on the individual fuels using the emission factors from the Danish Energy Agency and distribute the rest (0.3%) between the fuels based on a weighted calculation.

### **Gas**

### **Nameplate capacity (MW)**

1010

### **Gross electricity generation (GWh)**

1496

### **Net electricity generation (GWh)**

1446

### **Absolute scope 1 emissions (metric tons CO2e)**

398000

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

266

### **Comment**

The gross electricity, net electricity, scope 1 emissions and scope 1 emissions intensity are all calculated based on heat and power totals. Ørsted does not have public accounting policies for allocating fuel consumption and greenhouse gas emissions between heat and power generation. So the data in the lines above covers both heat and power generation (and not electricity alone). The CO2e intensity is calculated based on gross generation. When calculating the fuel specific scope 1 emissions we use reported CO2 emissions from the power stations and split them on the individual fuels using the emission factors from the Danish Energy Agency and distribute the rest (0.3%) between the fuels based on a weighted calculation.

### **Biomass**

### **Nameplate capacity (MW)**

1216

### **Gross electricity generation (GWh)**

9153

### **Net electricity generation (GWh)**

8910

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

The capacity above is for biomass based power generation alone. Our thermal units are in practise generating combined heat and power. The biomass based heat capacity is 2,054MJ/s. The gross electricity, net electricity, scope 1 emissions and scope 1 emissions intensity are all calculated based on heat and power totals. Ørsted does not have public accounting policies for allocating fuel consumption (and greenhouse gas emissions) between heat and power generation. So the data in the lines above covers both heat and power generation (and not electricity alone).

### **Waste (non-biomass)**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Nuclear**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Fossil-fuel plants fitted with CCS**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Geothermal**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Hydropower**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Wind**

### **Nameplate capacity (MW)**

4614

### **Gross electricity generation (GWh)**

15464

### **Net electricity generation (GWh)**

15464

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Solar**

### **Nameplate capacity (MW)**

10

### **Gross electricity generation (GWh)**

15

### **Net electricity generation (GWh)**

15

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Marine**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Other renewable**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Other non-renewable**

### **Nameplate capacity (MW)**

0

### **Gross electricity generation (GWh)**

0

### **Net electricity generation (GWh)**

0

### **Absolute scope 1 emissions (metric tons CO2e)**

0

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

### **Comment**

### **Total**

### **Nameplate capacity (MW)**

7489

### **Gross electricity generation (GWh)**

28871

### **Net electricity generation (GWh)**

28425

### **Absolute scope 1 emissions (metric tons CO2e)**

1767000

### **Scope 1 emissions intensity (metric tons CO2e per GWh)**

61

### **Comment**

The gross electricity, net electricity, scope 1 emissions and scope 1 emissions intensity are all calculated based on heat and power totals. Ørsted does not have public accounting policies for allocating fuel consumption and greenhouse gas emissions between heat and power generation. So the data in the lines above covers both heat and power generation (and not electricity alone) except for the capacity data which are for power only. The CO2e intensity is calculated based on gross generation. Please note that fuel-specific thermal power capacities cannot be added to a total as several of our thermal plants can run on more than one type of fuel i.e. there would be double counting if the fuel specific thermal capacities were just added together.

## **C-EU8.4**

### **(C-EU8.4) Does your electric utility organization have a transmission and distribution business?**

Yes

## **C-EU8.4a**

### **(C-EU8.4a) Disclose the following information about your transmission and distribution business.**

### **Country/Region**

Denmark

### **Voltage level**

Distribution (low voltage)

### **Annual load (GWh)**

8153

### **Annual energy losses (% of annual load)**

3.91

### **Scope where emissions from energy losses are accounted for**

Scope 2 (market-based)

### **Emissions from energy losses (metric tons CO2e)**

0

### **Length of network (km)**

18889

### **Number of connections**

1040000

### **Area covered (km2)**

2446

### **Comment**

## **C9. Additional metrics**

## **C9.1**

### **(C9.1) Provide any additional climate-related metrics relevant to your business.**

## **C-EU9.5a**

### **(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Primary power generation source** | **CAPEX planned for power generation from this source** | **Percentage of total CAPEX planned for power generation** | **End year of CAPEX plan** | **Comment** |
| Wind | 177500000000 | 88.75 | 2025 | All our investments are aimed at our green energy portfolio. We expect to invest DKK 200 billion in the period 2019- 2025 to continue our growth towards an installed renewables capacity of +30GW by 2030. Our capital will be allocated to the best risk-return project opportunities in our portfolio. In this period, we expect to allocate 75-85% of our gross investments to Offshore (wind), 15-20% to Onshore (wind and solar PV), and 0-5% to Markets & Bioenergy (biomass and smart meters). Data in the column “percentage of total CAPEX planned” are not more precise values than these ranges but are an estimated distribution of our DKK 200 billion CAPEX plan. The estimated CAPEX planned for wind power (approx. 88.75%) includes both offshore wind (approx. 80%) and onshore wind (approx. 8.75%). |
| Biomass | 2500000000 | 1.25 | 2025 |  |
| Solar | 17500000000 | 8.75 | 2025 | The estimated CAPEX planned for solar PV (approx. 8.75%) includes investments in energy storage. |

## **C-EU9.5b**

### **(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Products and services** | **Description of product/service** | **CAPEX planned for product/service** | **Percentage of total CAPEX planned products and services** | **End of year CAPEX plan** |
| Smart grid | Smart meters installed for our Danish power customers. (project is completed) | 2500000000 | 1.25 | 2025 |

## **C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6**

### **(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

|  |  |  |
| --- | --- | --- |
|  | **Investment in low-carbon R&D** | **Comment** |
| Row 1 | Yes |  |

## **C-CO9.6a/C-EU9.6a/C-OG9.6a**

### **(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Technology area** | **Stage of development in the reporting year** | **Average % of total R&D investment over the last 3 years** | **R&D investment figure in the reporting year (optional)** | **Comment** |
| Renewable energy | Large scale commercial deployment | 81-100% |  |  |

## **C10. Verification**

## **C10.1**

### **(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

|  |  |
| --- | --- |
|  | **Verification/assurance status** |
| Scope 1 | Third-party verification or assurance process in place |
| Scope 2 (location-based or market-based) | Third-party verification or assurance process in place |
| Scope 3 | Third-party verification or assurance process in place |

## **C10.1a**

### **(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Ørsted, 2019 [Annual report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g-8LuoJcE0irGqfE-jtllA/%C3%98rsted2019Annualreport.pdf)

[Ørsted, 2019 [ESG performance report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aiSVF7E15Ua7HN7LdOc4hw/%C3%98rsted2019ESGperformancereport.pdf)

### **Page/ section reference**

Annual report 2019: The scope 1 data are presented on page 160 and the assurance statement can be found on page 181 (limited assurance report on the consolidated ESG statements). ESG performance report 2019: Scope 1 emissions are presented in table '2.7 Greenhouse gas emissions, scope 1 and 2' on page 17, including a blue "eye" marker indicating that the data point has been reviewed with reference to the assurance statement on page 40.

### **Relevant standard**

ASAE3000

### **Proportion of reported emissions verified (%)**

100

## **C10.1b**

### **(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

### **Scope 2 approach**

Scope 2 location-based

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Ørsted, 2019 [ESG performance report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aiSVF7E15Ua7HN7LdOc4hw/%C3%98rsted2019ESGperformancereport.pdf)

### **Page/ section reference**

ESG performance report 2019: Scope 2 emissions are presented in table '2.7 Greenhouse gas emissions, scope 1 and 2' on page 17, including a blue "eye" marker indicating that the data point has been reviewed with reference to the assurance statement on page 40.

### **Relevant standard**

ASAE3000

### **Proportion of reported emissions verified (%)**

100

### **Scope 2 approach**

Scope 2 market-based

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Ørsted, 2019 [ESG performance report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aiSVF7E15Ua7HN7LdOc4hw/%C3%98rsted2019ESGperformancereport.pdf)

### **Page/ section reference**

ESG performance report 2019: page 40. Scope 2 emissions are presented in table '2.7 Greenhouse gas emissions, scope 1 and 2' on page 17, including a blue "eye" marker indicating that the data point has been reviewed with reference to the assurance statement on page 40.

### **Relevant standard**

ASAE3000

### **Proportion of reported emissions verified (%)**

100

## **C10.1c**

### **(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

### **Scope 3 category**

Scope 3 (upstream & downstream)

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Ørsted, 2019 [Annual report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g-8LuoJcE0irGqfE-jtllA/%C3%98rsted2019Annualreport.pdf)

[Ørsted, 2019 [ESG performance report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aiSVF7E15Ua7HN7LdOc4hw/%C3%98rsted2019ESGperformancereport.pdf)

### **Page/section reference**

Annual report 2019: The scope 1 data are presented on page 160 and the assurance statement can be found on page 181 (limited assurance report on the consolidated ESG statements). ESG performance report 2019: Scope 3 emissions are presented in table '2.8 Greenhouse gas emissions, scope 3' on page 18, including a blue "eye" marker indicating that all scope 3 data point have been reviewed with reference to the assurance statement on page 40.

### **Relevant standard**

ASAE3000

### **Proportion of reported emissions verified (%)**

100

## **C10.2**

### **(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

## **C10.2a**

### **(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Disclosure module verification relates to** | **Data verified** | **Verification standard** | **Please explain** |
| C4. Targets and performance | Year on year emissions intensity figure | ASAE3000 | Our energy generation intensity figure is verified with limited assurance in the ESG statement in the Annual Report 2019.  [Ørsted, 2019 [Annual report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g-8LuoJcE0irGqfE-jtllA/%C3%98rsted2019Annualreport.pdf) |

## **C11. Carbon pricing**

## **C11.1**

### **(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

## **C11.1a**

### **(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

EU ETS

## **C11.1b**

### **(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.**

### **EU ETS**

### **% of Scope 1 emissions covered by the ETS**

96

### **% of Scope 2 emissions covered by the ETS**

0

### **Period start date**

January 1 2019

### **Period end date**

December 31 2019

### **Allowances allocated**

860000

### **Allowances purchased**

1790000

### **Verified Scope 1 emissions in metric tons CO2e**

1774000

### **Verified Scope 2 emissions in metric tons CO2e**

0

### **Details of ownership**

Facilities we own and operate

### **Comment**

## **C11.1d**

### **(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

**i) Strategy for complying with the EU ETS system**

Ørsted supports the EU ETS mechanism as an efficient tool for driving investment in low carbon technologies. We are supportive of any initiatives that stabilize and strengthen the price signal from the EU ETS.

We have a strategic target to become carbon neutral by 2025. To achieve this, we will reduce our carbon intensity to less than 10g CO2e/kWh, which represents at least a 98% reduction compared to 2006.

We have decided to stop using coal in 2023 by converting our CHP plants from coal or gas to sustainable biomass.

**ii) Case study of how we have applied our strategy**

Situation:

Only a decade ago, Ørsted’s coal-fired power plants were still a significant part of Danish carbon emissions. At the same time, we had just launched our first strategy to transform our business from fossil fuels to green energy, because we strongly believed the future of energy was green

Task:

We were faced with the task to decarbonise our heavy fleet of CHP plants while at the same time continuing to provide flexible heat and power at a competitive price. Among politicians and our municipal district heating customers, there was widespread support for wooden biomass as the most climate-friendly alternative to coal.

Action taken:

To phase out coal, Ørsted decided to convert our power stations to sustainable biomass. In 2009, we decided not to build new coal-fired power plants, and in 2017, we decided to fully phase out coal in 2023.

Outcomes:

We have already completed the biomass conversion of our power stations Asnæs, Avedøre, Skærbæk, Studstrup and Herning, which produce green heat and power with sustainable biomass as a fuel. Sustainable biomass has allowed us to almost fully retire coal over the past decade.

In 2019, we completed the most recent biomass conversion – of the Asnæs Power Station, which now run up to 100% on sustainable biomass. The new turbine has a maximum capacity of 25MW power and a total of 129MJ/s process steam and district heating. The Asnæs Power Station will provide green process steam to Novo Nordisk’s and Novozymes’ production facilities as well as green heat to the city of Kalundborg and green power to the electricity grid.

In just over ten years, we will have gone from being one of the most coal-intensive utilities in Europe to having a completely coal-free generation in 2023.

## **C11.2**

### **(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

Yes

## **C11.2a**

### **(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.**

### **Credit origination or credit purchase**

Credit purchase

### **Project type**

Forests

### **Project identification**

We offset emissions equivalent to our annual air travel emissions. We do the offset through the Rimba Raya Biodiversity Reserve in Borneo, Indonesia, where we purchase carbon credits verified according to international standards for carbon offsetting and plant mangrove trees from 2019 through 2021. The trees grow and over their lifetime sequester emissions equivalent to our annual air travel emissions. The trees will be planted on degraded, abandoned land around the reserve to help reduce soil erosion and protect against storm surges. Rimba Raya was the first carbon project to receive REDD+ validation under the Verified Carbon Standard (VCS), and has achieved triple gold ranking under the global Climate, Community and Biodiversity standard (CCB). The reserve is a peat-swamp rainforest covering some 45,000 hectares and is home to around 300 bird species, 122 mammal species and 180 species of trees and plants. The land on which the reserve is located was initially slated for conversion to palm-oil plantations, but is today protected, and our investment helps ensure the rainforest is protected from unsustainable forestry.

### **Verified to which standard**

VCS (Verified Carbon Standard)

### **Number of credits (metric tonnes CO2e)**

15000

### **Number of credits (metric tonnes CO2e): Risk adjusted volume**

15000

### **Credits cancelled**

Yes

### **Purpose, e.g. compliance**

Voluntary Offsetting

## **C11.3**

### **(C11.3) Does your organization use an internal price on carbon?**

Yes

## **C11.3a**

### **(C11.3a) Provide details of how your organization uses an internal price on carbon.**

### **Objective for implementing an internal carbon price**

Drive energy efficiency

Drive low-carbon investment

### **GHG Scope**

Scope 1

### **Application**

In our Offshore Operations, we apply an internal price on carbon in all business cases for logistics. We apply a shadow price of €100 per tonne CO2e in the business cases to inform decisions on both the vessel type and the specific model. The applied price on carbon is in line with best-practice recommendations by the UN Global Compact. Ørsted’s vessels that we use to operate and maintain our offshore wind farms are a significant source of our scope 1 GHG emissions, that are not part of the EU Emissions Trading System. With our carbon neutral strategy, we have decided to pursue all initiatives within offshore logistics operations that stay within our budgets and can reduce greenhouse gas emissions at a cost below €100 per tonne CO2e. Using an internal price on carbon is therefore an important tool that guides our work to decarbonise our offshore logistics operations.

### **Actual price(s) used (Currency /metric ton)**

750

### **Variance of price(s) used**

The carbon price is €100 per tonne CO2e in all business cases. The price of DKK 750 reported here is an estimated price in DKK.

### **Type of internal carbon price**

Shadow price

### **Impact & implication**

As a case study, we have tested the implementation of an internal price on carbon at a tender for a Crew Transfer Vessel (CTV) for our Borssele 1 and 2 wind farm. While the carbon price was not used directly to evaluate the vessels in the tender, this was used as a test case to mature our approach to implementing an internal price on carbon in future investments in Offshore. The outcome of the Borssele tender was a decision to charter a hybrid CTV as one of the two vessels for operations and maintenance of the site. Based on an estimate of 200 sailing days per year, this leads to savings of 100m3 fuel per year, when compared to a standard CTV. The corresponding CO2 savings are approximately 300 tonnes CO2e per year.

## **C12. Engagement**

## **C12.1**

### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, other partners in the value chain

## **C12.1a**

### **(C12.1a) Provide details of your climate-related supplier engagement strategy.**

### **Type of engagement**

Innovation & collaboration (changing markets)

### **Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

### **% of suppliers by number**

0.1

### **% total procurement spend (direct and indirect)**

42

### **% of supplier-related Scope 3 emissions as reported in C6.5**

2

### **Rationale for the coverage of your engagement**

i) In 2020 we have launched a supply chain decarbonisation programme to engage with our top strategic suppliers on climate change. These suppliers are involved in the manufacturing and installation of offshore wind farm components, and they have been selected based on a top spend analysis, which has been cross checked with high CO2 emission categories. The engagement of suppliers in our project pipeline until 2025 has also been a selection criterion. The suppliers we engage thus represent key suppliers with a high spend and high CO2 emissions. The suppliers are all from our offshore wind supply chain which is where we will allocate 75-85% of our investments from 2019-2025. The selected key suppliers represent the following categories: - Wind turbines - Foundations - Substations - Cables - Vessels The data in “% procurement spend” is the spent of suppliers we engage on climate, relative to the total direct and indirect spend in Ørsted Procurement. The 42% is a 2019 datapoint. If including our purchases of electricity and gas for resale to customers in the definition of procurement spend, we engaged suppliers representing approximately 25% of our total spend in the period. The suppliers we engage represent the largest sources of scope 3 emissions in our offshore wind supply chain. However, they constitute only 2% of Ørsted’s total scope 3 emissions in 2019. This is indicated by the figure 2% in “% Scope 3 emissions”, where our offshore wind supply chain corresponds to the scope 3 category “2. Capital goods” in C6.5. This is because we buy electricity and gas for resale to customers, which together constitute the majority of Ørsted’s scope 3 emissions. When we buy electricity directly from the power market (e.g. NordPool), we do not have a direct supplier as such, and therefore electricity and gas for resale to customers fall outside scope of our supply chain decarbonisation programme. We have targets to increase the share of renewable energy we sell to customers and reduce our sales of natural gas, which are important actions to achieve our target to reduce scope 3 emissions 50% from 2018 to 2032. As we accelerate our global green energy build-out and reduce our sales of natural gas, we expect that our offshore wind supply chain will increase its relative importance of our scope 3 footprint.

### **Impact of engagement, including measures of success**

ii) Measures of success. Ørsted’s vision is to create a world that runs entirely on green energy. With our supply chain decarbonisation programme, we have reached out to our industry-leading suppliers to join forces to accelerate the global green transformation. Many of the green technologies to be used to decarbonise our supply chain exist but they're not yet cost competitive. With our supply chain decarbonization programme, we want to help drive the necessary innovation forward to mature the green technologies in the industries that supply to us. Our measures of success are, that our suppliers will: 1) Disclose their own emissions and set science-based carbon-reduction targets. 2) Use 100% renewable electricity in the manufacturing of wind turbines, foundations, cables, substations, and components 3) Optimise their vessel fleet and develop roadmap to power vessels with renewable energy These three levers contribute to Ørsted’s strategic targets: A) We have a target to reduce scope 3 emissions 50% from 2018 to 2032. This is a key milestone in our target to reach net-zero emissions in our total carbon footprint by 2040. iii) Impact of engagement. 1) We have asked our suppliers to disclose their emissions to CDP Supply Chain. By the time of preparing this report, our suppliers have not yet completed the first annual reporting cycle. Status on progress is: - 40% of key suppliers in scope of the programme have previously disclosed their emissions to CDP. - 10% of key suppliers have publicly committed to set a Science-Based Target. 2) Our CEO has sent a letter to each of our key suppliers, encouraging them to use 100% renewable electricity. As a first step in our implementation, we now require the use of renewable electricity in our framework agreements with cable suppliers. 3) Reducing emissions in from vessels in our offshore wind supply chain is linked to the decarbonisation of heavy industry and shipping sectors. We're engage these suppliers in dialogue, and based on our combined knowledge, we’re developing roadmaps that can deliver the carbon reductions needed. Development related to Ørsted’s strategic targets: A) From 2018 to 2019 Ørsted reduced our total scope 3 emissions by 4%. Contributing to this development, emissions from the scope 3 category capital goods (new wind farms) decreased 28%, from 1,032 ktCO2e in 2018 to 740 ktCO2e in 2019.

### **Comment**

Ørsted also engage its suppliers on climate through other initiatives: - Our Code of Conduct for business partners (CoC), which requires all our business partners to minimise adverse impacts on the environment of their products or services throughout their life cycle - In all high-risk contracts, CO2 emissions and renewable energy are weighted selection criteria - In all in all business cases for offshore wind logistics operations, we apply an internal price on carbon of €100 per tonne CO2e - Climate requirements for all indirect procurement - Only sourcing certified sustainable biomass, where we document the CO2 emissions through our biomass supply chain

## **C12.1d**

### **(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

**i) Explanation of who ‘other partners in the value chain’ constitutes**

In this response we provide details on Ørsted’s climate-related engagement of all our debtholders. Ørsted's bond investors and lenders are concrete examples of our debtholders. In Ørsted we have made the decision, that all our future financing will come in a green format.

**ii) Case study of strategy for engagement:**

Situation:

Before 2017 Ørsted used traditional financing mechanisms to secure funding for our projects. We did not have a green financing framework.

Task:

In Ørsted we decided to give ourselves the task, that all our future financing should come in a green format.

Action taken to pursue this strategy:

Ørsted has developed a Green Finance Framework which is an update to the Green Bond framework we published in 2017. The Ørsted Green Finance Framework has been allocated the dark green shading in the Second Opinion from CICERO Shades of Green. The net proceeds from our green financing instruments can be allocated to a selected pool of offshore wind projects. These projects are funded in whole or in part by Ørsted with the objective to promote the transition to low carbon and climate resilient growth and a sustainable economy

Outcomes of strategic actions taken:

We issued our first Green Bonds in 2017. We entered the Green Bond market by issuing a EUR 750 million Green Senior Bond and a EUR 500 million Green Hybrid Bond, which correspond to total net proceeds of DKK 9,173 million. We issued six new green bonds in 2019: Three GBP senior bonds, one EUR hybrid bond and two TWD senior bonds. In 2020, we were awarded ‘Green bond of the year’ by Environmental Finance for our issuance in 2019 of the largest Sterling green bond offering ever. It was also the first multi-tranche and the largest inflation-linked Sterling green bond ever.

As of January 2020, an amount of DKK 17,855 million of our Green Bond proceeds have been allocated to the following seven offshore wind power projects:

Borkum Riffgrund 2 (465MW) in Germany, Borssele 1 & 2 (752MW) in the Netherlands, Changhua 1 & 2a (900MW) in Taiwan, and Hornsea 1 (1,218MW), Hornsea 2 (1,386MW), Race Bank (573MW) and Walney Extension (659MW) in the UK.

Going forward, our investments will be fully funded by green capital, either through operating cash flow from our renewable energy projects or through new debt issued in accordance with our green finance framework.

## **C12.3**

### **(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

## **C12.3a**

### **(C12.3a) On what issues have you been engaging directly with policy makers?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Focus of legislation** | **Corporate position** | **Details of engagement** | **Proposed legislative solution** |
| Cap and trade | Support | Direct dialogue with the political level, with daily interactions with Commission officials, regular exchanges with Members of the European Parliament as well as continued dialogue with other relevant stakeholders, organisations and companies. | Ørsted supports the EU ETS mechanism as an efficient tool for driving investment in low carbon technologies. We are supportive of any initiatives that stabilize and strengthen the price signal from the EU ETS. |
| Clean energy generation | Support | Direct dialogue with the political level, government officials, and other relevant stakeholders, organisations and companies, both nationally in all the markets that we are active in, in potentially new markets and in the EU. | In all countries in which we operate, Ørsted supports a stable and transparent regulatory framework for renewable energy in general and offshore wind in particular. In Denmark, the UK, Germany, the Netherlands, Taiwan and the US, Ørsted engages various specific issues related to the framework conditions for offshore wind. Ørsted is also active in developing framework conditions for renewables and offshore wind energy in particular in new potential markets. |
| Carbon tax | Support | Dialogue with national policy makers in Denmark (CO2 tax on heating) and stakeholders in the UK on carbon floor. | We support any pricing of CO2. In the sectors outside the ETS a carbon tax is a way forward. In sectors within the ETS, CO2 pricing measures should support the ETS. |
| Energy efficiency | Support | Direct dialogue with policy makers particularly in Denmark and the EU. | We support policy measures and targets for energy efficiency. |

## **C12.3b**

### **(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## **C12.3c**

### **(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

### **Trade association**

Confederation of Danish Industry

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Confederation of Danish Industry (CDI) represents more than 10.000 Danish businesses and assists these in addressing climate change. CDI's approach is based on global principles developed by the United Nations (UN Global Compact) and OECD Guidelines for Multinational Enterprises.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold CEO membership of the CDI's Business Committee and VP membership of the Energy and Climate Committee and a board member position in the Bioenergy Committee.

### **Trade association**

Danish Energy Association

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Danish Energy Association (DEA) is a commercial and professional organization for Danish energy companies. DEA recognizes that global warming and climate change is caused by the increasing concentration of greenhouse gasses in the atmosphere. DEA is committed to climate change mitigation and assists member companies in addressing the need to decarbonize energy production.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one positions on the Board (vice-chairman).

### **Trade association**

Wind Denmark

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Wind Denmark is a Danish industry and network organization with approximately 240 member-companies. Wind Denmark’s members consist of wind turbine manufacturers, energy companies and the wide range of companies that provide components, services and consultancy. DWIA is committed to climate change mitigation and actively promotes wind power in Denmark to ensure that wind power contributes to a Danish low-carbon energy system.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one position on the Board.

### **Trade association**

Sustainable Biomass Partnership

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Sustainable Biomass Partnership (SBP) provides a platform for energy companies to certify sustainable low-carbon sourcing of woody biomass sourced for the purpose of low-carbon bioenergy production. Thus, the SBP champions the use of low-carbon woody biomass, ensured by offsetting CO2 emissions from burning of biomass through replantation of trees which absorb CO2 from the atmosphere.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one position on the Board.

### **Trade association**

WindEurope

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

WindEurope actively promotes wind power in Europe and worldwide and aims to facilitate the development of wind-based low-carbon energy systems.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one position on the Board.

### **Trade association**

Netherlands Wind Energy Association (NWEA)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Dutch Wind Energy Association (NWEA) is a trade association of companies and organizations that work towards more sustainable wind energy on land and at sea. NWEA unite companies in the wind industry to help accelerate the transition to renewable energy. NWEA is a member of WindEurope, the European wind energy association, and the Dutch Association of Sustainable Energy (NVDE).

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one position on the Board.

### **Trade association**

American Wind Energy Association (AWEA)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The American Wind Energy Association (AWEA) is the national trade association for the U.S. wind industry. With thousands of wind industry members and wind policy advocates, AWEA promotes wind energy as a clean source of electricity for American consumers.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

RenewableUK

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

RenewableUK works to ensure increasing amounts of renewable electricity are deployed sustainably across the UK. RenewableUK is the UK’s leading renewable energy trade association, specializing in onshore wind, offshore wind, and wave & tidal energy.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Northeast Clean Energy Council (NECEC)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

NECEC is an association which helps clean energy companies start, scale and succeed. NECEC includes the Northeast Clean Energy Council trade member organization. The Northeast Clean Energy Council is the lead voice for clean energy companies across the Northeast, influencing the energy policy agenda and growing the clean energy economy.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Renew Northeast

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

RENEW Northeast is an association uniting the renewable energy industry and environmental interest groups whose mission involves coordinating the ideas and resources of its members with the goal of promoting and increasing renewable energy in New England and New York.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

National Ocean Industries Association (NOIA)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The National Ocean Industries Association (NOIA) represents all facets of the domestic offshore energy and is dedicated to the safe development of offshore energy.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Alliance for Clean Energy New York (ACE NY)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

New York Offshore Wind Alliance (NYOWA) is a project of the Alliance for Clean Energy New York (ACE NY) and consists of a broad and diverse coalition, with a mission to promote policies that will lead to the development of demand for offshore wind in the Atlantic Ocean off the coast of New York State.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Business Network for Offshore Wind

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Business Network for Offshore Wind focus solely on the development of the U.S. offshore wind industry and advancement of its supply chain.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Offshore Wind California (OWC)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Offshore Wind California promotes policies and builds public support for responsible development of offshore wind power in California.

### **How have you influenced, or are you attempting to influence their position?**

We hold one position on the Board.

### **Trade association**

Hydrogen Denmark

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Hydrogen Denmark is an association that organises all stakeholders in the field of hydrogen and fuel cells. They are dedicated to contributing to a world independent of fossil fuels, working for hydrogen and fuel cell technologies as the natural next step in the green transition.

### **How have you influenced, or are you attempting to influence their position?**

We participate in working groups and hold one position on the Board.

### **Trade association**

Other advocacy memberships

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Please find full list of our advocacy memberships in the sustainability section on our website: https://orsted.com/-/media/WWW/Docs/Corp/COM/Sustainability/Orsted%20-%20Advocacy%20Membership%202018

### **How have you influenced, or are you attempting to influence their position?**

As described in rows above.

## **C12.3f**

### **(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Our engagement with political decision makers and political stakeholders is anchored in a corporate support function “Group Stakeholder Relations”, specifically in the departments “Group Regulatory Affairs” and “Group Public Affairs” that serve the entire group. We identify, assess and work to minimize regulatory risks to protect and optimize our asset portfolio, and to create the best political and regulatory framework for future investments supporting our vision of world that runs entirely on green energy. Our country specialists keep track of new legal initiatives and changes to regulation within our footprint and attempt to influence the energy issues relevant to our business in those markets. The political energy agenda is followed in Denmark, in the EU and in the US.

Group Regulatory Affairs coordinates the individual business units' local interests and ensures that positions and messages are consistent across markets and across business units. Group Regulatory Affairs work in close cooperation with the Corporate Strategy department who acts as an advisory body to the CEO and as such is involved in any strategic initiative at group level. These processes ensure that all our political and regulatory engagement activities are fully in line with our overall climate change strategy.

## **C12.4**

### **(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

### **Publication**

In mainstream reports, incorporating the TCFD recommendations

### **Status**

Complete

### **Attach the document**

[Ørsted, 2019 [Annual report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g-8LuoJcE0irGqfE-jtllA/%C3%98rsted2019Annualreport.pdf)

### **Page/Section reference**

Governance: p.52-65, Strategy: p.16-31, Risks & opportunities: p.60-63, Emissions figures: p.158-165, Emission targets: p.28

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

### **Comment**

### **Publication**

In voluntary sustainability report

### **Status**

Complete

### **Attach the document**

[Ørsted, 2019 [Sustainability report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/f3di2dgy9EC19Zyynj_Rxw/%C3%98rsted2019Sustainabilityreport.pdf)

### **Page/Section reference**

Governance: p.50, Strategy: p.4-23, Emissions figures: p.36, Emission targets: p.36

### **Content elements**

Governance

Strategy

Emissions figures

Emission targets

### **Comment**

### **Publication**

In voluntary communications

### **Status**

Complete

### **Attach the document**

[Ørsted, 2019 [ESG performance report].pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aiSVF7E15Ua7HN7LdOc4hw/%C3%98rsted2019ESGperformancereport.pdf)

### **Page/Section reference**

Emissions figures: p.17-18, Emissions targets: p.5, Other metrics: p.3-20

### **Content elements**

Emissions figures

Emission targets

Other metrics

### **Comment**

## **C15. Signoff**

## **C-FI**

### **(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

## **C15.1**

### **(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

|  |  |  |
| --- | --- | --- |
|  | **Job title** | **Corresponding job category** |
| Row 1 | Chief Financial Officer | Chief Financial Officer (CFO) |