CDP Climate Change Questionnaire 2022 – Centrica

C0. Introduction

C0.1

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

About us - Centrica is a leading energy services and solutions company focused on helping customers live sustainably, simply and affordably. We've been providing energy for over 200 years and serve over 10m residential and business customers mainly in the UK and Ireland, through strong brands like British Gas, Bord Gáis Energy and Centrica Business Solutions. Our distinctive capabilities are across energy supply, services and solutions, energy trading and optimisation, and supported via our 20,000-strong team which includes 7,000 engineers. Following our 2015 strategic review, we've been re-positioning our business away from large scale carbon intensive energy assets. The majority of our power generation assets have been divested or decommissioned, and we've announced the sale of our joint venture oil and gas assets in Norway alongside the intention to adopt a run-off strategy for remaining assets in the UK. We're now well-positioned to create a more sustainable future by becoming a new type of integrated energy company operating across the value chain – whether developing low carbon and transition assets or providing services and solutions that help homes and businesses be greener.

Our impact on climate change - Our direct carbon emissions under scope 1 include those from sources we own or control such as power generation, gas production and storage as well as emissions arising from our property, fleet and travel. Indirect emissions under scope 2 come from electricity purchased and consumed across our offices and assets. Our scope 3 emissions consist of those we don't produce ourselves but arise from the services and solutions provide such as electricity and gas sold to customers from wholesale markets and other products purchased to run our business.

Reducing our impact - Climate change is one of the greatest global challenges facing society. The implications are far-reaching, and the energy sector is at the forefront of the need to respond. We believe that decarbonisation is increasingly being driven by decentralisation, digitisation and increased customer control. This changing energy landscape coupled with our distinctive capabilities, helps us play a key role in shaping the energy transition while supporting national and international reduction targets.

Advancing towards net zero – Building on progress made under our Responsible Business Ambitions, we introduced our People & Planet Plan in 2021. The Plan aims to create a more inclusive and sustainable future that supports communities, our planet and each other by advancing action through five Group-wide goals that matter deeply to our business and society, and where we can make a world of difference–from accelerating our shift to net zero, to building the engaged and inclusive team we'll need to get there. We then published our Climate Transition Plan, which sets out our plan for achieving net zero while ensuring a fair and affordable transition for all.

We're focused on:

- **Helping our customers be net zero by 2050 (28% carbon intensity reduction by 2030):** With around 90% of our total carbon emissions coming from our customers, the biggest thing we can do is to help them use energy more sustainably. We made good progress against our net zero goal with the carbon intensity of our customers' energy use reducing by 18% from 2019–equivalent to the annual emissions of 1.6m homes. To progress further, we're focused on expanding energy efficiency and home energy management tools, encouraging the take up of optimisation technologies, supporting fuel switching, and ensuring a cleaner energy supply. We've set 2025 ambitions including doubling the number of Hive customers, achieving annual installs of up to 100,000 EV charge points and 20,000 heat pumps while remaining a leader in the supply of zero carbon electricity.
- **Being a net zero business by 2045 (40% carbon reduction by 2034):** We now emit over 80% less carbon than a decade ago. Towards our net zero target, our total carbon emissions decreased by 82% from 2019 and while emissions will rise in 2022 as Whitegate Power Station comes back online following outages in 2021, we expect to stay on track. Looking ahead, our ambition includes building a zero-emission road fleet in the UK by 2025 and cutting our UK property emissions by a further 50% by 2030, while exiting remaining activities in oil and gas exploration and production and redirecting investment into assets that drive the transition forward – from securing up to 800MW of low carbon and transition assets like solar and battery storage by 2025, to exploring the conversion of our Rough gas storage facility to store hydrogen.

We also understand the wider role we can play in mitigating climate change in supply chains and our communities. For example, we collaborate with partners to raise and maintain high environmental standards in our supply chain and engage communities via dedicated projects and campaigns to help them use energy more sustainably.

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, 2021	December 31, 2021	Yes	2 years

C0.3

(C0.3) Select the countries/areas in which you operate.

Belgium
Canada
Denmark
France
Germany
Hungary
Ireland
Israel
Italy
Mexico
Netherlands

Norway
Singapore
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.

GBP

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.

Operational 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

Other divisions

Smart grids / demand response
Battery storage
Micro grids
Gas extraction and production

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	GB00B033F229

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
Chief Executive Officer (CEO)	Centrica's Group Chief Executive has overall responsibility for the business' climate related issues, as they are responsible for setting Group objectives and strategy to be approved by the Board, including those related to climate change. Specifically, the CEO personally oversaw the development of our revised Climate Change goals and Climate Transition Plan, actively participating in their development to ensure full alignment with company strategy. Through their membership of the Board and attendance at the relevant Board sub-committees the CEO ensures that issues associated with climate change are represented consistently at the highest level The Safety, Environment and Sustainability Committee (SESC), on which the CEO and Chairman sit, is accountable for oversight on climate change. Our CEO also chairs the Centrica Leadership Team, which meets monthly and which has delegated authority to set objectives, targets and policies for managing issues related to climate change including the design and performance against our climate change target and ambitions. Executive and Committee reviews, with quarterly Risk & Controls meetings held with the Group CFO and BU Managing Directors.
Director on board	The Chair of the Board Safety, Environment and Sustainability Committee (SESC) additionally has oversight for climate-related issues through their role as committee chair. The Chair of the SESC is an independent Non-Executive Director and is therefore well-placed to oversee the adequacy and effectiveness of internal controls and risk management systems relating to climate change, through their leadership of the committee which scrutinises these matters. They typically review climate change information three times a year. The Board is further aided by the Audit and Risk Committee in reviewing stated matters quarterly whilst also overseeing audit and risk matters at CLT meetings. Meanwhile, the Remuneration Committee ensures climate change is considered in remuneration arrangements and in 2022, climate transition KPIs were incorporated into incentive plans for Executive Directors and other key colleagues across the

	Group. Additionally, they receive and review an annual detailed update on climate-related strategy, risks, opportunities and overall progress against our climate change ambitions. The SESC Chair oversaw the Boards review and approval of our climate change goals as part of our People and Planet Plan introduced in 2021. In 20201 they also oversaw and approved our first Climate Transition Plan published in the run up to COP26.

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	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Centrica has a governance structure which follows best practice, through which the Board has group-wide oversight of climate related issues. Oversight on climate change was provided by the Board Safety, Environment and Sustainability Committee (SESC). The SESC meets 3 times annually to review the effectiveness of internal controls and risk management including those relating to climate change. Progress in meeting our Climate Change goals is reviewed at least annually, using a dashboard of key performance indicators (KPI) relating to our near and long-term climate change targets and ambitions. In 2021 the SESC reviewed and approved of our new Climate Transition Plan. The SESC Chair provides a report to the Main Board following each meeting; the Board considers climate performance as necessary following each meeting, and climate strategy annually in line with the frequency at which this is discussed by SESC. The Board reviews the recommendations and reports provided by the SESC, and other Board committees, Climate Change is identified as a component risk, within the Group Enterprise Risk Management process feeding into these board meetings. Climate risks are considered, along with all business unit risks as part of the business unit Risk, Assurance and Control

		Committees (RACC) four times annually to evaluate and challenge material risks, risk appetite and the adequacy of mitigating controls and assurance. The most significant and material risks which determine the Group Principal Risks are then reported to the Centrica Leadership Team (CLT) chaired by the Group Chief Executive Officer, before submission to the Audit and Risk Committee to ensure Board challenge and oversight. Our ERM Framework uses a time horizon of 1–3 years to assess Principal Risks alongside a longer timeframe of 3–20 years to assess Emerging Risks. Following this process, climate change has been made a Principal Risk which applies to the 2021 reporting period. A more detailed report is delivered to SESC annually by the Group Head of Environment and then reviewed by the committee providing an update on climate-related strategy, risks, opportunities and overall progress against our climate change goals out to 2050. Performance against, and continued suitably of, climate goals and targets are also reviewed. The Board & Executive have dedicated annual meetings to review and develop strategy. At the annual Board Planning Conference, the external environment and strategic plans are examined, including longer term risks relating to market, competition, technology, and policy aspects, all of which are influenced by climate change. All businesses assessed net zero and the energy transition as part of their strategic proposals which were presented to the Board in 2021.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Our Board and its committees have a range of skills, experience and knowledge relevant to Centrica and its markets. We assess Board skills and expertise using a Skills Matrix covering 11 core skills criteria one of which is Climate Change and Sustainability. The specifics of this

		criteria have been developed with reference to Chapter Zero's 'declaration on climate capabilities in the boardroom' including a requirement for deep experience of the science around global warming, the international and national debate and evolving stakeholder expectations; and climate-related risks facing businesses and mitigating those risks for progress towards net zero. Whilst our view is that climate change is best addressed as a collective effort across company Boards rather than delegated to an individual, our last Board capability review identified 4 serving board members with deep competence on climate related issues including our Chief Executive Officer and the Chair of the Board Safety, Environment and Sustainability Committee.

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)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Centrica Leadership Team	Both assessing and managing climate-related risks and opportunities	Quarterly

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).

The Chief Executive Officer (CEO) chairs the Centrica Leadership Team (CLT) meetings. As Chairman of the CLT, the CEO is ultimately accountable for ensuring that the CLT is effective in discharging its duties. Chairing enables the CEO to assess and monitor climate related issues in detail with relevant technical and business support as required.

The Centrica Leadership Team (CLT) chaired by the Group Chief Executive has the authority to set objectives, targets, and policies for managing issues related to climate change. The CLT met monthly during 2021 and at each meeting reviewed and set as appropriate; HSE policies, standards and governance arrangements, reviewed HSE performance and monitored and reported on the effectiveness and operation of HSE management systems and controls, including risk and opportunity management.
Operational environmental performance forms part of the remit of the HSE departments of each business unit and therefore is considered in an integrated manner through the review of these elements of HSE performance. The organisation's performance on HSE is reported at each

CLT meeting. Additionally, several environmental deep-dives were undertaken with the Committee, where greater detail was provided and reviewed and any proposals for approval or emerging issues were discussed. As the committee which sets the overall direction, tone from the top and performance expectations for environment in Centrica, it is responsible for the management of issues related to climate change for example, in 2021 the CLT reviewed and approved Centrica's first Climate Transition Plan, the proposal to join the UN's Race to Zero campaign, strategic options on green energy supply and the results of TCFD aligned scenario analysis.

The CLT membership comprised of the Group Chief Executive, Group Chief Financial Officer, Managing Director British Gas, Managing Director Centrica Business Solutions, Managing Director Bord Gais, Managing Director Trading, Group Chief People Officer, Group General Counsel & Company Secretary, and Group Strategy Director. Other senior leaders for the business units and relevant Group functions also attended as appropriate, including the Group Head of Environment. As climate-related issues have an impact across the business and all its geographies, and require relevant expertise, this committee was chosen to be responsible for climate related issues, due to its comprehensive business representation and appropriate climate expertise.

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 incentivized	Comment
Environment/Sustainability manager	Monetary reward	Emissions reduction target	Delivery of selected Centrica and Business Unit specific environment plans is incentivised and may include reductions in carbon emissions.
Other, please specify Energy Efficiency Senior Managers	Monetary reward	Efficiency project	Incentives are provided to ensure we meet our Energy Company Obligation (ECO) targets for improving domestic energy efficiency, and to ensure we do so in the most cost-effective way possible. The efficient delivery of ECO is built into the objectives for the ECO leadership team. Success in this area, coupled with business

			performance, help determine the annual performance bonus for relevant employees.
Other, please specify Power Generation operation teams	Monetary reward	Efficiency target	Individual performance targets are determined by employee role and may include open-cycle gas turbine (OCGT) efficiency and compliance with the EU Emissions Trading System (EU ETS).
Facilities manager	Monetary reward	Emissions reduction target	Facility Managers are incentivised specifically for environmental targets on energy and waste.
Other, please specify Nominated suppliers or employees	Non-monetary reward	Supply chain engagement	Employees in Centrica can nominate colleagues who have supported the responsible procurement agenda. This can be related to supporting ethical site inspections and/or contributed to closing a corrective action plan, addressing non-compliance from labour to environmental sustainability. It can also be due to supporting the supplier in completing a sustainability assessment. Recognition is given through the 'Centrica Recognition' Platform, which is visible to all employees (globally) and celebrates employees who demonstrate the Centrica Values, and/or act in support of the Responsible Business Ambitions, including our climate targets. Additionally, we have created a recognition for suppliers based on their responsible procurement credentials and the continuous improvement to the energy efficiency of the products they produce. For example, gas boiler suppliers are incentivised to continue improving the efficiency of their product to achieve recognition in their industry and maintain key supplier status with Centrica. This level of recognition is sponsored by our Chief Procurement Officer (CPO). A lack of improvement in this area, and particularly if a supplier does not complete the relevant scorecard detailing their actions, results in an escalation with the potential consequence that we cease trading with a supplier.

Board/Executive board	Monetary reward	Energy reduction project	The Remuneration Committee ensures climate change is considered in remuneration arrangements and in 2022, climate transition KPIs were incorporated into incentive plans for Executive Directors, including the CEO and CFO, and other key colleagues across the Group. It is proposed that the 'Restricted Share Plan' will vest over three years, subject to a performance underpin framework, with a further two year holding period. In assessing the underpin, the committee will consider the Company's overall performance, including financial and non-financial performance measures over the course of the vesting period, as well as any material risk or regulatory failures identified. Non-financial performance will include a range of operational and strategic measures critical to the Company's long-term sustainable success including specifically progress towards our Climate Transition Plan.

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	1	We consider short-term risks & opportunities (R&O) to be those with the potential to be realised in the immediate term, i.e. 1-year time period. Such R&O would be considered through the monthly Business Unit performance reviews, where delivery of the Group Operating Plan is monitored. Climate R&O over this timescale would be included in the Business Unit reporting to the Group Enterprise Risk process.

Medium-term	1	3	Our Group-wide Enterprise Risk process looks over a period of up to 3 years and includes relevant climate risks as part of our assessment of Principal Risks that have the potential to impact our strategy. In 2021 climate change was identified as a Principal Risk. Climate R&O over this timescale are integrated into the Group Enterprise Risk Management process.
Long-term	3		Longer term external trends are monitored and reviewed annually as emerging risks in our Enterprise Risk process. Longer term trends and risks are also reviewed through our strategic planning processes, including our annual Board Planning Conference. In 2021, we undertook climate change scenario analyses, using a 2019 baseline, out to 2050. Due to the nature of climate change risks, the TCFD scenario analysis time frames are all 'long-term', however, we have considered them in three sub-time frames: 'near long-term' (2022 to 2025), 'medium long-term' (2026 to 2035), and 'far long-term' (2036 to 2050).

C2.1b

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

Risks related to, or influenced by, climate change are assessed alongside other business risks. A substantive financial or strategic impact on our business is defined through our Risk Assessment Criteria.

In the Risk Assessment Criteria, risks are assessed using potential impact severity alongside the likelihood of materialisation. A 1-5 impact and 1-5 likelihood scale is used, with the overall risk rating (1-25) being the product of impact multiplied by likelihood. The impact score is derived using several criteria including Financial impact.

Financial impact is scored on a scale of 1-5 from negligible to severe and is normally derived through consideration of lifetime or in-year operating cash flow impact. **A substantive financial impact** on 'in-year operating cashflow' is defined as severity level 4 'Significant' (£40–60m) and severity level 5 'Severe' (>£60m)

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
Upstream
Downstream

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

Climate change is included as a key risk within the Group Enterprise Risk management (ERM) processes, which addresses risks over short and medium-term horizons on a quarterly basis at the group level. Climate-related risks are also identified and assessed under other Principal Risks across our Risk Universe, reflecting how climate change affects many aspects of our business (upstream, downstream and direct operations) and the external environment. Each identified risk from asset to company level, is consistently assessed and reported according to 'Our Approach to Enterprise Risk' guidance. Substantive risks that could threaten the business under a severe but plausible scenario, undergo robust assessment and form the basis of our annual viability statement.

In 2021 to support the short-, medium- and long-term risk identification, assessment, and response processes described above. Centrica undertook climate change scenario analysis. The scenario analysis modelled the potential (unmitigated) climate change risks over plausible pathways, identifying inherent substantive climate related financial and strategic impacts over the different time horizons. The results helped inform the business view of how risks might evolve and the effectiveness of mitigating actions we are taking. The output from this work fed into the ERM process. This climate change scenario analysis work will be repeated on an annual basis.

Risks are prioritised by assessing potential impacts alongside likelihood, quarterly, by each business unit. A 1-5 impact and 1-5 likelihood scale is used with the overall rating (1-25) being their product. The impact score is derived using several criteria including HSE (Heath, Safety, Environment), Regulatory, Legal, Stakeholder and Financial impact.

Financial impact is scored on a scale of 1-5 from negligible to severe and is normally derived through consideration of lifetime or in-year operating cash flow impact. A substantive financial impact on 'in-year operating cashflow' is defined as severity level 4 'Significant' (£40–60m) and severity level 5 'Severe' (>£60m)

For the purposes of quantifying potential financial impacts from transition and physical climate risks, in line with the recommendations of the TCFD, we also used percentage of Gross Margin (GM) as the quantifiable indicator. This enables a holistic assessment to be made.

Likelihood is scored on a scale of 1-5 based, from 1 being remote (rarely happened in industry or sector), through, to almost certain (there is a history of common occurrence across the Group, sector and / or external market).

Risk ratings are represented on a risk heat map and ranked as low, moderate, or high according to the overall risk rating. The moderate and high risks are compared to the risk appetite the business has set for that risk. Where there are out-of-appetite risks, the BU or Functional Risk manager facilitates the design and implementation of controls and mitigation actions to manage the potential impacts. The control and mitigations might be in the form of implementing standards and management systems; or an external risk might be controlled through scenario and contingency planning with little ability to reduce likelihood; or we may accept the risk to execute our business strategy, for example to capitalise on an identified opportunity. The Risk manager will identify an appropriate owner for new controls and mitigation activities, review existing controls and mitigation actions to ensure they are effective and continuously improved; and ensure that controls and action plans are implemented within their area.

A transitional risk managed through this process is ‘mandates on, and regulation of, existing products and services increasing operating costs’. Regulatory risks are identified at both an asset and group level through our business unit and enterprise risk management processes. Failing to comply with our ECO obligations, which requires energy suppliers to reduce heating costs for low-income households, is an example which was identified at the business level by British Gas. It was assigned a likelihood score of 3 and an impact score of 3, meaning it was categorised as a medium risk. Mitigating actions include meeting last year’s mandate (ECO3) and preparing for the new mandate ECO4, that is yet to commence; while ensuring customers in need are being serviced during the transitional period between the mandates.

The physical risk of extreme weather events, such as flooding at Easington terminal for our gas storage business, has been identified through our risk management processes at CSL business level and classified as an external risk. The potential impact of such flooding could prevent access to operational areas, forcing a site shut down and loss of revenue. This was assigned a likelihood score of 1, due to the area being a ‘1/1000 year’ flood location, and an impact score of 3, meaning it is not categorised as a substantive risk, and does not require mitigation nor escalation.

The top risks for each business unit (BU) or function are reported to Group Enterprise Risk and each of these risks is allocated to one of the Group Key Risks. Quarterly Risk & Controls meetings are held with the Group Chief Financial Officer (CFO), Chief Risk and Audit Officer, and BU Managing Directors. The risks presented to them are the substantive financial or strategic risks to the business, whether climate related or otherwise.

The Top 10 risks impacting the Group are presented as the Group Principal Risks. Each Principal Risk is rated using the same 1-25 scoring based on the reported BU or function risks. The ratings of the Principal Risks are reported to the Centrica Leadership Team (CLT) and the Audit and Risk Committee (ARC). This ensures a clear

understanding of our risk profile, whether the risks are within our risk appetite, the risk mitigations in place, and the related assurance activities.

The Principal Risks used in 2021 are listed and described in the Annual Report and included Climate change for the first time.

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	As an energy company, we are subject to many regulatory requirements relating to climate change, including the EU Emissions Trading Scheme (ETS), Energy Savings Opportunity Scheme (ESOS) and Energy Company Obligation (ECO). Due to the significance of such regulations to our business, we closely monitor and assess risks associated with any changes through their inclusion in our enterprise risk management (ERM) process. This would usually be raised by our Legal, Regulatory, Ethics and Compliance, Health, Safety and Environment and Corporate Affairs Functions and discussed under our "Legal, Regulatory and Ethical Standards Compliance" and 'Political and Regulatory Intervention' Principal Risks under which climate change sits. For example, uncertainty over the costs associated with PAS2035 upgrade standard was expected to have negative financial implications for our business in the final year of the scheme (2021/22). This materialised and market prices for late 2021 were 60% higher than at the close of 2019. Sufficient budget however had been provisioned ensuring funds were available to complete our obligation.
Emerging regulation	Relevant, always included	Due to the long-term nature of investments in the energy sector, new regulations have the potential to impact the economics of our projects and hinder investment and thus we continually monitor, review and assess proposed and incoming regulatory change as part of our ERM framework to mitigate and manage potential impacts on our business. Emerging regulation is monitored on an ongoing basis by our Legal and Regulatory, Ethics and Compliance, Strategy, Environment & Reputation and Corporate Affairs Functions; and is usually discussed under our "Political and Regulatory Intervention" Principal Risk. For example, Centrica invested £1bn in our Centrica Business Solutions business over 2015-2021 and uncertainty over UK regulations, such as flexible generation incentives for distributed generation (which can encourage small scale renewables as well as enabling technology which supports intermittent centralised renewables), could potentially affect our return on that investment therefore it was vital that regulatory changes relevant to climate change and with the potential to impact this investment were identified at an early stage and the required

		mitigations implemented. For example, our aggregation of demand side response services for our customers benefits from appropriate flexibility incentives, If regulations changed eligibility, or removed existing incentives, for some of these customers, our revenue might decrease.
Technology	Relevant, always included	The need to develop new technologies and innovate is vital to meeting our purpose of helping you live sustainably, simply and affordably. Decarbonisation is a significant driver of technology development within the energy sector and vice versa, including distributed energy products and services, such as demand response and energy optimisation. New technology presents both risks and opportunities to our business and the external market is highly competitive and changing. These risks are regularly assessed through our ERM process to ensure competitive threats are identified and that we are focused on designing new product offerings which are attractive to customers. For example, our current UK energy services business revenue in British Gas Services & Solutions relies heavily on the skills and supply chains established to maintain and install natural gas boilers at scale. As the UK decarbonises this sector in the decades to come we have modelled that under certain scenarios, there is a risk that this will result in a material reduction in our Gross Margin (GM). To mitigate the potential adverse impact to the GM, we will need to transition these skills and supply chains towards alternative technology, whether electrified or hydrogen based.
Legal	Relevant, always included	Failure to comply with our legal obligations in relation to climate change is a key risk to our business, as Safety, Compliance and Conduct is a core strategic priority for Centrica. There is a wide range of climate-related legislation that is applicable to the energy sector, including the EU ETS, Energy Savings Opportunity Scheme (ESOS), and ECO. The effectiveness of our processes to identify and manage compliance with this legislation is regularly assessed and reported quarterly by our Legal and Regulatory, Ethics and Compliance Function through our ERM process. This would usually be discussed under our “Legal, Regulatory and Ethical Standards Compliance” Principal Risk. For example, failure to deliver our obligations under ECO (legislation that requires energy companies to improve domestic energy efficiency and invest in reducing heating costs for vulnerable customers) could lead to enforcement action, including fines to compensate for consumer detriment. As a consequence, ECO is overseen by a quarterly forum (ECO Board) including the Energy CFO, Head of Regulations and General Manager Net Zero.
Market	Relevant, always included	Our strategy has been informed by analysis of key market trends, which includes changing consumer behaviour due to factors such as energy efficiency and climate change, leading to reduced energy per customer in some markets. With a significant proportion of our total

		revenue coming from energy supply, the risk from reduced demand is that our revenue will also reduce. Demand reduction has been driven by improved energy efficiency, achieved through successful decarbonisation initiatives, and changing customer behaviour as a result of greater environmental awareness, alongside reaction to price changes and economic downturn. Given that we have identified decarbonisation as a key market trend influencing the energy sector, this is closely monitored through our ERM process, within our "Strategy Delivery" and "External Market Environment" Principal Risks, to ensure we are successfully responding to external drivers and delivering on our strategy.
Reputation	Relevant, always included	The risk of damage to our brand, trust, and reputation due to failure to manage our impact on society including climate change could have a negative impact on consumer sentiment. Our strategy is focused on delivering our Purpose to help our customers 'live sustainably, simply and affordably' and ensuring our reputation aligns with this is therefore vital to its delivery and is regularly assessed and reported by our Corporate Affairs Function and assessed quarterly through our ERM process, within our "Brand, Trust and Reputation" Principal Risk. Reputation is also assessed as one of the impact criteria on our Risk Assessment Matrix and so can form part of the scoring for any risk. For example, involvement in hydrocarbon production may be viewed adversely by some stakeholders, as not being aligned with the Paris Agreement, considering the need to reduce fossil fuel consumption in the coming decades. This in-turn could result in a loss of investors or customers. However, it is widely accepted that natural gas will be a key transition fuel for the next 2 or 3 decades. Given this context and the need to counter the reputational risk, in 2021 Centrica announced the sale of its interests in the Norwegian Spirit Energy joint venture assets and published plans to run down the remaining UK and Dutch assets in the next decade and committed to no further oil and gas exploration for new fields.
Acute physical	Relevant, always included	Acute climate risks, such as extreme weather events, can pose a number of challenges to our operations and assets, due to the potential for disruption to critical processes and/or infrastructure, as well as the potential for increased customer demand for our services. For example, our 2021 TCFD assessment considered whether flooding events would affect our assets, such as power stations and gas terminal. Since 2015 we have significantly reduced our portfolio of large scale assets, materially reducing our risk exposure. The remaining assets have had flood assessments and the risk is considered immaterial with low exposure to flooding in their remaining operation lifetimes across all modelled scenarios. We continue to assess weather risks through our ERM process to ensure the continued resilience of our business to these events. These

		assessments are conducted within our “Customer Service”, “Health, Safety and Environment” and “Information Systems and Security” Principal Risks and reported quarterly to the SESC and Audit and Risk Committee.
Chronic physical	Relevant, sometimes included	Rising mean temperatures and changing weather patterns can present a risk to our business. The Chronic physical risks and opportunities of climate change were assessed in 2021 as part of our TCFD scenario analysis. For example, the impact of increased temperatures, including milder winters, was assessed and could potentially have an impact on long-term demand for natural gas and electricity for heating in the UK and Ireland, resulting in a corresponding fall in supply revenue. These chronic physical risks and their impacts are considered through our annual strategic planning processes. The impacts are partly countered by Centrica’s natural hedge, whereby decreased demand for heating is countered by increased cooling demand. Changes to weather patterns causing global uncertainties are considered by our Demand Forecasting teams and are assessed and reported as part of our “External Market Environment” Principal Risk to the Audit and Risk Committee.

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

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Reduced GM from the sale of less energy, particularly natural gas.

In the long term, unabated natural gas consumption needs to be reduced significantly to achieve the UKs net zero commitments. The rate and depth of the phasing out of natural gas is uncertain and depends on many factors.

Decarbonising heating systems is one of the UK's biggest challenges on the journey to net-zero by 2050. Heat accounts for approximately a third of UK emissions, with this proportion likely to increase in the short term.

The vast majority of UK consumers (85%) are connected to the gas (methane) grid and use it for heating, along with an additional 65% of non-domestic buildings. As UK heating systems decarbonise the source of energy for most, if not all, systems will change to lower carbon alternatives, and therefore methane gas sales will decrease for Centrica. This risk of reduced energy sales will be compounded by a likely reduction in energy consumption due to increased energy efficiency measures.

These reductions could be partially, to fully, outweighed by an increase in demand for low carbon hydrogen and electricity for heating, as well as planned growth in customer numbers.

Energy supply is a material business area for Centrica. British Gas Energy, which supplies energy to residential and small business customers in the UK, generates ~£7.5bn in revenue (approximately half of Centrica's total). The proportion of this revenue which is due to heating is also roughly half.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

400,000,000

Explanation of financial impact figure

Centrica's revenue from gas sales was roughly a fifth of company revenue at £3.9bn in 2021, against a total revenue of £18.3bn. Therefore a material proportion of Centrica's activity is at risk in a deep decarbonisation scenario without mitigation.

Our TCFD scenario analysis mapped our energy sales operations out to 2050 against four Future Energy Scenarios (FES) from National Grid (ranging from 1.5 to >2 degree scenarios). This provided potential scale ranges for the decrease in revenue from natural gas heating, as well as to the increased sales of electricity and green/low carbon fuels for new low carbon heating systems.

The gross margin in energy sales (excluding transport) were modelled in line with our current strategic plans. They were extrapolated out to 2050 with a static market share, against the FES scenarios. The resulting financial figures represent the highest and lowest net position from the 4 different FES scenarios. They are the potential net annual gross margins at risk for this activity in 2050.

In the long term (2050) the smallest financial impact, in 'steady progression' scenario, is calculated as zero due to minimal impact on existing natural gas sales. There were certain instances in our analysis where scenarios resulted in a net opportunity for energy sales. We have not included these here due to the opportunities not being driven by climate factors but instead population and market share growth

In the long term (2050), in the most aggressive decarbonisation scenario, the magnitude of the impact could be 'high'. The inherent risk (with no mitigation measures) is that the natural gas sales would nearly cease, with the destruction loss of the associated GM. However, these reductions will be partially outweighed by an increase in demand for low carbon hydrogen and electricity for heating, as well as planned growth in Centrica's customer numbers. Our analysis in this scenario suggests a potential maximum loss of £400m net annual gross margin in 2050.

Note, these figures are indicative only. We have held unit margin static, which is unlikely as markets evolve. We may also choose to increase or lower the modelled market shares. The FES scenarios used are not necessarily in line with what Centrica actually expects to occur, rather they offer a range of plausible pathways to model.

Cost of response to risk

0

Description of response and explanation of cost calculation

Situation: Current legislation (e.g., the UK banning gas boilers for new builds from 2025) and potential regulation, (including the banning of new gas boilers in homes) will result in potentially significant reductions in consumer demand for natural gas.

Centrica's revenue from gas sales was roughly a fifth of the total company revenue at approximately £3.9bn in 2021, against a total business figure of £18.3bn. Therefore this is an inherent substantive financial risk for Centrica, in the absence of mitigation strategies.

To counter this, there is an opportunity for Centrica to sell more low carbon energy, including electricity, for heating which will replace methane.

Task: Centrica sells both natural gas and electricity to end user customers. As the UK pivots away from natural gas, customers will need to switch to alternative energy sources. These are likely to be in the form of hydrogen gas and electricity. Centrica already sells electricity and will be able to offer hydrogen gas when it becomes available. We need to ensure that we are equipped, and the supply chains are in place, to seize these growing low carbon energy supplies.

Action: Energy switching in the short and medium term is likely to be in the form of switching from natural gas to electricity. As an established business selling electricity to customers, there will be no material OPEX and CAPEX costs associated with greater electricity sales. The software, processes and staff resources will stay broadly the same.

In the longer term, the energy switching is likely to focus more on switching from natural gas to hydrogen. This is likely to be in the form of increasing hydrogen blends being delivered to customers. From Centrica's perspective this will not require additional systems or staff. The same staff, software and processes can be used, irrespective of the gas blend, hence the cost is the same. The activity of procuring and trading in an established hydrogen market does not have any inherent increase in CAPEX or OPEX costs on the trading side versus incumbent fuels such as methane. This effectively is a change in molecule rather than a material change in markets

Result: Therefore, while the potential financial impact of the inherent risk of reduced natural gas sales is modelled as low to high, costs to mitigate the risk are considered zero, with the potential for the mitigation to result in an opportunity for increased GM.

Comment

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 through access to new and emerging markets

Company-specific description

Decarbonising heating systems is one of the UK's biggest challenges on the journey to net-zero by 2050. Heat accounts for approximately a third of UK emissions, with this proportion likely to increase.

The UK Government has outlined, through its Ten Point Plan, ambitions on how to transition those off the gas grid onto low-carbon technologies. Heat pumps have been chosen as the main technology for these properties however, there has yet to be a clear outline on how the Government intends on transitioning those on the gas grid to low-carbon heating solutions. This will be an enormous task as the majority of consumers are connected to the gas grid (85%) and a significant amount of non-domestic buildings using natural gas (65%) for heating.

Centrica's British Gas Services and Solutions (BG S&S) business unit is the largest servicer and installer of gas boilers in the UK with approx. 7,000 engineers. In 2021 BG S&S had 3.4 million service customers and undertook 282,000 natural gas (methane) boiler install and on-demand jobs, generating ~£1.5bn in revenue, the vast majority being generated from the servicing and installation of gas boilers. This equates to approximately 10% of Centrica's total revenue.

Future legislation banning the installation of new natural gas boilers clearly puts this revenue at risk. However, growth in the low carbon heating market, through the proliferation of heat pumps, other electrified solutions, and hydrogen technology will be a material opportunity for Centrica – one which we expect to exceed the revenue at risk. British Gas Services for instance, which generates ~£1.5bn in revenue (~10% of Centrica's total) derives the vast majority of this revenue from heating system installation and servicing and will grow sales in these low carbon technologies.

As these new markets and technologies emerge, British Gas services will look to maintain its position as a market leader (installing future low-carbon heating system rather than the incumbent methane boilers) in what will likely be a higher capital per unit market, with the resulting opportunity for growth therefore significant for both Centrica and the UK.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

150,000,000

Explanation of financial impact figure

In 2021 BG S&S had an adjusted gross margin of £574m, ~2/3 associated with the installation and servicing of natural gas appliances. In the long term, unabated domestic natural gas appliances will need to be phased out to achieve the UKs net zero commitment. The rate and depth of the phasing is dependent on the transition scenario that plays out and on numerous factors including government policy, technology, cost curves and public attitudes.

Our TCFD scenario analysis modelled our UK&I operations (>90% of group GM) to 2050 against 4 different Future Energy Scenarios (FES) from National Grid (1.5 to >2 °). This quantified the potential scale in net growth from pivoting towards low carbon solutions and growing market share.

Decreasing sales of boiler installations and servicing, a corresponding increase in sales and servicing of electric and hydrogen fuelled heating systems, plus associated enabling opportunities in fabric upgrades, were modelled in line with current strategic plans for the next 5 years. They were then extrapolated out to 2050 with a static market share, against FES scenarios to provide the quoted financial figures, which are the potential net change in annual gross margins for this opportunity in 2050. No scenarios resulted as a net risk.

By 2050 in the least decarbonised scenario (steady progression, >2°), the impact on boiler operations is minimal as they remain the incumbent technology, with effectively no change in gross margin (GM) compared with a 2019 baseline. In this scenario there will be a small reduction in natural gas boilers. This is our minimum potential financial impact figure.
In the deepest decarbonisation scenario (1.5°), the magnitude of the impact is high. The inherent risk (with no mitigation measures) is that the natural gas installation and servicing business would cease, with the loss of associated GM. However, with BG S&S looking to maintain its position as a market leader (installing future low-carbon heating systems rather than incumbent tech) in a higher capital market, there is a significant net

opportunity. The maximum potential net impact being £150m gross margin gain.

It should be noted that these figures are indicative only. We have held unit margin static, which is unlikely as market regulation and learning rates evolve. We may also change market share. The FES scenarios are not necessarily in line with what Centrica expect to occur, rather they offer a broad range of plausible pathways.

Cost to realize opportunity

10,500,000

Strategy to realize opportunity and explanation of cost calculation

Situation: Centrica's workforce capability is currently mainly focused on incumbent technology in line with current market conditions and customer demand. However, we are technology agnostic.

Task: We believe that a range of solutions will be deployed, with regional considerations influencing the technology deployed, and stand ready to play a critical role any pathway. We will need to cross skill and train our workforce with the capabilities required to service and install future low-carbon technologies, and meet the needs of future customers.

Action: In line with the National Grids' Future Energy Scenarios (FES) most aggressive decarbonisation scenario in which heat pumps are the most likely technology for the majority of UK households, we have modelled the costs to re-skill our existing engineering workforce. The approximate cost to upskill a trained gas engineer to be able to survey, design, maintain, and install a basic mono block heat-pump is currently, and provisionally, ~ £3000. This will be required for around 1/4 of the engineers in a heat pump workforce, with the remaining 3/4 requiring lighter training with a cost to the business of ~£1000. This does not cover on-going costs for refresher training, some training required for more complex systems (e.g split systems), or the training needed for centralised support staff. With ~7k engineers in service at present, the reskilling of British gas' work force would cost ~£10.5m as a total cost.

The costs to realise this opportunity, as per the above calculation will fall into OPEX rather than CAPEX.

The timeframes for this cross skilling are heavily contingent on different decarbonisation pathways. The UK government has introduced legislation which will ban the installation of gas boilers in new builds from 2025 – this is a clear market signal which will result in heat pump capability being required by then. However, in line with the average FES scenarios, methane boilers are expected to stay as the most common heating technology for at least another decade.

Result: This reskilling would leave us with a workforce that could install and service heat pumps, which are typically seen as the most likely majority technology for future UK heating.

Note that our current workforce will require minimal retraining to manage hydrogen boiler installation and maintenance, and this could well play a meaningful role in the technology mix. This would result in a reduced cost to realise.

Comment

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

Despite the Covid pandemic, the uptake of electric vehicles (EVs) by individuals and businesses has rapidly expanded across the last few years in the UK. While transport still accounts for ~30% of the UK's CO2 emissions, 2021 was a significant year for EVs with sales topping 300,000 (fully electric and plug-in hybrid cars) and market share reaching 19%. With a 2030 ban on new petrol and diesel vehicle sales in place, external forecasts, including the National Grid's Future Energy Scenarios, predict significant ramp up in EVs on the road, to the millions over the next decade.

This growth in EVs creates opportunities in several areas for Centrica. The principal areas are new and growing value pools related to home EV charger installs, the operation and maintenance (O&M) of these chargers, and energy supply and demand-side response services to run EVs cost-effectively.

Centrica is already one of the largest charger installers in the UK. Towards this, we've already installed over 20,000 charge points since 2013, and created partnerships with over 10 companies within the car manufacturing, leasing company and roadside assistance markets – including Ford, Toyota, Vauxhall, RAC and Leaseplan amongst others. With these partners we have begun to deliver charge points and tariffs at scale, and we're developing technology for consumers to be rewarded for using their EV battery to store and trade energy to better balance the grid. The EV market is still developing and we're keeping our plans under review. However, favourable market conditions could see us install up to 100,000 EV charge points a year by 2025. Centrica has also committed to make its own fleet of 9,000 vehicles fully electric. We have ordered 3,000 e-Vivaro vans from Vauxhall, to be deployed by the end of 2022.

Through our existing energy supply customer base, along with planned growth in customer numbers, we are well placed to capture the opportunity that will arise from supplying the energy to run EVs.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

240,000,000

Potential financial impact figure – maximum (currency)

270,000,000

Explanation of financial impact figure

Our TCFD scenario analysis modelled our UK&I operations (>90% group gross margin) out to 2050 against four different Future Energy Scenarios (FES) from National Grid (ranging from 1.5 to >2 degree scenarios). This provided indicative scale to the potential growth in revenue and margin from our EV associated activities.

The financial benefit from this EV associated activities, from both new and growing value pools relating to EV charger installs, the operation and maintenance (O&M) of these charge points, and concurrent energy supply for the EVs themselves, was modelled in line with our current strategic plans for the next 5 years. They were then extrapolated out to 2050 with a static market share to provide the given financial figures. These represent the highest and lowest figures from the 4 different plausible FES scenarios. They are potential growth in annual gross margins for this opportunity in 2050, and do not represent the entire gross margin for these business areas.

There is minimal variation expected between the four scenarios due to similar outcomes across them all, with the electrification of transport an very likely occurrence.

It should be noted that these figures are indicative of scale only. We have held unit margin static, which is unlikely as markets evolve. We may also choose to increase or lower market shares from that which was modelled. The FES scenarios used are also not necessarily in line with what Centrica actually expect to occur, rather they offer a

broad range of plausible pathways to model.

Cost to realize opportunity

3,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: British Gas are looking to make the customer experience of installing and operating an EV charger at home as simple as possible and provide ways for consumers to reduce costs related to EV charging.

Task: To enable this we need to develop our website, app and backend systems, as well as help drive demand through marketing spend

Action: There are a number of digital projects to complete across our online charger order journeys, our Hive user app and our backend systems:
- We need to optimise our home EV charger order journeys both for direct and partner customers to include features such as a real-time view of installation status, online booking of survey and installation appointments, and the ability to purchase multiple related services together (e.g. charger installation and EV energy tariff)
- Enhance the charging control, security and usage insight features within our Hive app and carry out developments to meet new smart charging regulations coming into force in July 2022
- Invest in the integration of our Hive platform with third party charger manufacturers (for control of their equipment) and partners (for sharing of order information)
- Develop our order management system to more efficiently progress installation orders across multiple teams and automate customer communications
- Develop our energy management system to enable us to offer demand-side response services to EV consumers to save on charging costs

We need to allocate media spend in direct channels and through partners to market these services.

The £3 million is an approximate annual total of costs required to move these projects forward in line with business plans over the next year, with similar annual sums required over the coming years'

Result: Reduced cost and improved experience for BG electric vehicle customers, increasing our revenue in our target EV value pools.

Comment

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

The UK government has unveiled a plan to ensure that Britain's homes and businesses are powered by affordable, clean and secure electricity by 2035. Home-grown, green technologies will support the UK to transition away from reliance on fossil fuels.

This, and the required market conditions to enable full decarbonisation of the electricity grid, will provide a significant increase in demand for low carbon electricity generation.

As the market demand for low carbon generation technology continues to increase, Centrica is growing its investment and capabilities to meet both customer demand for assets and to increase its own asset portfolio. Investments will be across a range of transition and low carbon generation technologies, with solar and batteries being specific areas of focus, as well as flexible assets such as peaking generators. The value will be derived from a combination of install, O&M and asset ownership. This increase in demand, and Centrica's capability and ambition to deliver in this area, will result in increased revenue.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

60,000,000

Potential financial impact figure – maximum (currency)

150,000,000

Explanation of financial impact figure

Our TCFD scenario analysis mapped our UK&I operations (>90% group gross margin) out to 2050 against four different Future Energy Scenarios (FES) from National Grid (ranging from 1.5 to >2 degrees scenarios). This provided indicative scale to the growth from Centrica's increased activity due to the growth in demand from low carbon generation assets.

To provide plausible financial impact we modelled the gross margin expected from the installation, O&M and ownership of transition and low carbon generation technologies, in line with our current strategic plans for the next 5 years. We then extrapolated out to 2050 with a static market share to provide the given financial figures. These represent the highest and lowest figures from our interpretation of the 4 different plausible FES scenarios. They are potential growth in annual gross margins for this opportunity in 2050, and do not represent the entire gross margin for these business areas.

The low and high scenarios vary based on the scale of build out of technologies that we are focusing on, these include battery storage, solar, and peaking gas generation, among others. Different scenarios have different build out profiles for the UK&I energy system.

It should be noted that these figures are indicative of scale only. We have held unit margin static, which is historically unreliable for generation assets, particularly those such as batteries which operate in an extremely flexible manner. We may also choose to increase or lower market shares from that which was modelled or focus on deploying capital in different geographies as we see opportunities arise. The FES scenarios used are also not necessarily in line with what Centrica actually expect to occur, rather they offer a broad range of plausible pathways to model.

Cost to realize opportunity

100,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: In order to support Britain's transition to a clean energy system by 2035 home-grown, green technologies are needed to replace large scale carbon intensive generation assets. Small scale flexible generation to help support the proliferation of intermittent renewables will also be required.

Task: Delivering this strategy, particularly the asset ownership component of Centrica's ambitions, will require significant capital to allow the construction of such assets, as well as resource and capability.

Action: This is well understood, and Centrica have publicly announced plans to invest up to £100 million a year by 2025, to secure up to 800MW of low carbon and transition assets such as solar and battery. This will be deployed through a new sub-business unit 'Centrica Energy Assets' where capabilities are being focused and developed.

This figure is an annual one rather than the cumulative total to achieve the targeted 800MW by 2025.

Result: Home-grown, green technologies will support the UK to transition away from reliance on fossil fuels and Centrica's investment will ensure we play a meaningful role in facilitating this. There will be a corresponding growth in revenue from this investment.

A specific example of previous investment in this area was the recent commissioning of one of the largest battery storage facilities in Europe. The 49MW Roosecote battery in Cumbria is able to come online in less than a second to meet fluctuations in demand. It is able to hold enough power for around 50,000 homes.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

Yes

Mechanism by which feedback is collected from shareholders on your transition plan

Our transition plan is voted on at AGMs and we also have an additional feedback mechanism in place

Description of feedback mechanism

During 2021 we engaged extensively with institutional investors whilst scoping out our first Climate Transition Plan (CTP) in order to understand their views on what information they would expect to see and find useful in the CTP. We subsequently shared the draft CTP with a number of specialist ESG focussed investors including the climate coalition Climate Action 100+ and held detailed feedback sessions, taking their input into account prior to publishing the CTP in November 2021. In order to continue to collect feedback from shareholders, we have committed to hold an advisory vote on the CTP at our AGM starting in 2022 and at every review stage at least every 3 years. Additionally, to collect shareholder feedback on our progress in delivering to the CTP, we publish performance reports in our Annual Report and separate People & Planet update reports and hold ESG focussed investor meetings throughout the year. In 2021 we held 18 shareholder meetings of this type, including with our Chairman and the Chair of our Board Sustainability Committee, gaining valuable feedback and insights on our climate transition planning.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your transition plan (optional)

climate-transition-plan-2021.pdf

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios Customized publicly available transition scenario	Company-wide	1.5ºC	National Grid, Future Energy Scenarios 2021 – Leading the Way. Scenario used to quantitatively assess transition risks and opportunities for Centrica in its core business activities of energy supply, services and solutions in an aggressive decarbonisation pathway towards 1.5ºC. The scenario was selected as it provides a very granular data set through which the potential impact on Centrica's gross margin (GM) and capital expenditure assessed out to 2050 can be assessed through trends such as complete replacement of fossil based domestic heating solutions with a mix of electrified and hydrogen based alternatives by 2050, strong growth in electric vehicles and energy efficiency. Almost complete cessation of the use of unabated natural gas, significant increase in the demand for renewable electricity and low carbon hydrogen and material growth in solar generation are also assumed. Centrica's market share and unit GM was kept flat beyond current 5 year strategic plans.
Transition scenarios Customized publicly	Company-wide	1.6ºC – 2ºC	National Grid, Future Energy Scenarios 2021 – System Transformation. Scenario used to quantitatively assess transition risks and opportunities for Centrica in its core business

available transition scenario			activities of energy supply, services and solutions in a high-Hydrogen decarbonisation pathway keeping to well-below 2ºC. The scenario was selected as it provides a very granular data set through which the potential impact on Centrica's gross margin (GM) and capital expenditure assessed out to 2050 can be assessed through trends such as complete replacement of fossil based domestic heating solutions primarily with hydrogen based alternatives by 2050, strong growth in electric vehicles and energy efficiency. The enduring use of natural gas for Hydrogen production, increase in the demand for renewable electricity including solar generation are also assumed. Centrica's market share and unit GM were kept flat beyond current 5 year strategic plans.
Transition scenarios Customized publicly available transition scenario	Company-wide	1.6ºC – 2ºC	National Grid, Future Energy Scenarios 2021 – Consumer transformation. Scenario used to quantitatively assess transition risks and opportunities for Centrica in its core business activities of energy supply, services and solutions in a high-electrification decarbonisation pathway keeping to well-below 2ºC. The scenario was selected as it provides a very granular data set through which the potential impact on Centrica's gross margin (GM) and capital expenditure assessed out to 2050 can be assessed through trends such as complete replacement of fossil based domestic heating solutions primarily with electric based alternatives by 2050, strong growth in electric vehicles and energy efficiency. Almost complete cessation of the use of unabated natural gas, with very significant increase in demand for renewable electricity including solar generation are also assumed. Centrica's market share and unit GM were kept flat beyond current 5 year strategic plans.
Transition scenarios Customized publicly available transition scenario	Company-wide	2.1ºC - 3ºC	National Grid, Future Energy Scenarios 2021 – Steady Progression. Scenario used to quantitatively assess transition risks and opportunities for Centrica in its core business activities of energy supply, services and solutions in a low decarbonisation pathway leading to over 2ºC of warming. The scenario was selected as it provides a very granular data set through which the potential impact on Centrica's gross margin (GM) and capital expenditure assessed out to 2050 can be assessed through trends such as reduced but enduring use of

			fossil based domestic heating solutions with partial replacement with electrified alternatives by 2050. Strong growth in electric vehicles and to a lesser extent energy efficiency. Enduring use of natural gas to 2050, with modest increase in the demand for renewable electricity including solar generation are also assumed. Centrica's market share and unit GM were kept flat beyond current 5 year strategic plans.
Transition scenarios IEA NZE 2050	Company-wide		Global energy sector net zero by 2050. Scenario was selected and used to test potential risk of asset impairment on Centrica's hydrocarbon production division, Spirit Energy in a 1.5 ºC scenario. Impact on asset Net Present Value (NPV) through changes in commodity demand and prices through the following key trends was quantified: ban on fossil boilers by 2025, 60% car sales EV and 850GW of Hydrogen electrolysers by 2030, net zero power in our key markets by 2035, 50% heating from Heat pumps by 2045. Liquid prices were used for first 4 years and then blended to external Net zero price scenarios out to 2050.
Transition scenarios Customized publicly available transition scenario	Business division	1.5ºC	Aurora Net Zero – Mixed. Scenario was selected and used to test potential risk of asset impairment on Centrica's 20% interest in the UK Nuclear fleet in a 1.5 ºC scenario. Impact on asset Net Present Value (NPV) through changes in commodity demand and prices through the following key trends was quantified: decarbonisation achieved by 2050 through a combination of increasing total carbon price and greater nuclear, renewables, hydrogen and gas CCS capacities. Liquid prices were used for first 4 years and then blended to external Net zero price scenarios out to 2050.
Transition scenarios Customized publicly available transition scenario	Business division	1.5ºC	Aurora Net Zero High – RES. Scenario was selected and used to test potential risk of asset impairment on Centrica's 20% interest in the UK Nuclear fleet in a 1.5 ºC scenario. Impact on asset Net Present Value (NPV) through changes in commodity demand and prices through the following key trends was quantified: decarbonisation achieved by 2050 through significant increases in renewable capacities without having any additional nuclear capacity. Liquid prices were used for first 4 years

			and then blended to external Net zero price scenarios out to 2050.
Physical climate scenarios RCP 2.6	Company-wide		IPCC Representative Concentration Pathway (RCP) 2.6. The scenario was used to assess physical risks and opportunities for Centrica in a 1.5ºC pathway. The RCP pathways were selected as a credible description of different climate futures linked to the radiative forcing values and we used them to assess the potential risks from aspects including rising mean temperatures and sea levels, flooding, extreme and volatile weather, droughts and heatwaves on our material activities and assets out to 2050. Potential impacts were assessed both quantitatively such as impact on gross margin or sea level rise and qualitatively such as potential impacts on supply chains.
Physical climate scenarios RCP 4.5	Company-wide		IPCC Representative Concentration Pathway (RCP) 4.5. The scenario was used to assess physical risks and opportunities for Centrica in an intermediate pathway aligned with 2.4ºC of warming. The RCP pathways were selected as a credible description of different climate futures linked to the radiative forcing values and we used them to assess the potential risks from aspects including rising mean temperatures and sea levels, flooding, extreme and volatile weather, droughts and heatwaves on our material activities and assets out to 2050. Potential impacts were assessed both quantitatively such as impact on gross margin or sea level rise and qualitatively such as potential impacts on supply chains.
Physical climate scenarios RCP 8.5	Company-wide		IPCC Representative Concentration Pathway (RCP) 8.5. The scenario was used to assess physical risks and opportunities for Centrica in an extreme warming future aligned with a 4.3ºC pathway. The RCP pathways were selected as a credible description of different climate futures linked to the radiative forcing values and we used them to assess the potential risks from aspects including rising mean temperatures and sea levels, flooding, extreme and volatile weather, droughts and heatwaves on our material activities and assets out to 2050. Potential impacts were assessed both quantitatively such as impact on gross margin or

			sea level rise and qualitatively such as potential impacts on supply chains.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

1. What are the key transition and physical attributes or macro-trends across a range of plausible climate pathways under different warming futures that have the potential to materially impact Centrica, its activities, products, assets and value-chain in the short, medium and long term out to 2050?

2. Considering the above and given Centrica's current strategic plans what is the range of potential, quantifiable impacts both negative and positive, to earnings (gross margin) asset values (Net Present Value), investment (Capex) and operations (disruption through physical impacts) and where appropriate, qualitative impacts across the range of selected pathways?

3. Given the above what are the key transition and physical risks and opportunities and the potential financial implications that Centrica faces relating to climate change across a range of plausible scenarios, how resilient is our current strategy and how can the findings be used to inform and improve our strategic and financial planning to deliver growth in a net zero future?

The 10 independent scenarios listed in C3.2a were carefully selected to ensure they contained data sets of sufficient relevance to Centrica's core activities and granularity to enable the potential implications on Centrica to be meaningfully and robustly modelled and answer the focal questions listed above. As an example, although the IEA Net Zero Emissions scenario is suitable for assessing the impacts of a 1.5 degree future on our major oil and gas assets exposed to globally priced commodities, it is not sufficiently granular to allow a detailed analysis of the impact on individual product lines such as gas boilers within the UK&I region. For this the National Grid Future Energy Scenarios proved more suitable.

Results of the climate-related scenario analysis with respect to the focal questions

1. Scenario analysis identified potential physical trends driven by differing levels of climate change and potential transition trends which might occur as society seeks to mitigate. This allows us to understand how the pace and scale of change might vary and the potential financial risks and opportunities for Centrica.

Key transition trends were the gradual phase out of unabated natural gas by 2050, an

increase in demand for electricity and rapid build out of wind and solar generation in the next decade and beyond. Heat could be decarbonised primarily by electrification to 2035 then increasingly hydrogen to 2050 and electric vehicles could dominate mobility by the 2040's. Physical trends included potential increases in mean temperatures and decreased demand for gas & electricity for heating. Increases in extreme weather, flooding and sea level rise were also observed with increased warming.

2. We tested the potential negative and positive implications of these attributes on our gross margin for services and solutions and asset valuations over the short to long term across global warming futures of 1.5°C to 4°C. Specifically, analysis showed that we're potentially exposed to transitional risks and opportunities such as policy and regulatory changes that could range from 'low to high' in significance in the long term. Risks primarily relate to the gradual phase out of natural gas in heating, which although an essential transition fuel, could require a shift in the range of products and services we offer. Decarbonisation also presents significant opportunity for the group including low carbon heating, energy optimisation and EV charging and development of new solar and battery assets. Risks associated with extreme weather and rising mean temperatures were identified, with potential to impact on energy supply chains and customer supply and demand. Quantitative and qualitative analysis indicated that these risks are likely to be lower with increased levels of decarbonisation and we manage through defined hedging strategies and collaboration with counter parties.

All scenarios contain significant opportunities for capital investment into new and existing assets and technologies required by decarbonisation. The requirement for capex to manage potential risks was assessed as being in-line with current plans. The risk of asset impairment or stranding across differing climate scenarios was assessed as immaterial considering the short life of our assets and value at risk.

3. Overall, analysis showed that our strategic plans and capabilities position us well to mitigate the risks and seize the opportunities related to climate change. Whilst some areas of our business inevitably face into bigger challenges than others, our modelling suggests an overall net financial benefit for the group as we continue to evolve in line with the needs of the energy transition. These insights have been factored into our annual strategic and financial planning process.

C3.3

(C3.3) 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	Our latest product and services strategic plans have been heavily influenced by our assessment of climate risks and

		opportunities and the energy transition out to 2025 and beyond. Centrica Business Solutions has created an integrated solutions platform to help customers better manage their energy use, through insights using our Panoramic Power sensors, optimisation through our demand side response platform and generation or storage with solar or battery, effectively creating clean 'virtual power plants'. In 2020 we developed and launched an 'Net Zero Pathways' service for customers mapping out a pathway to net zero for their energy needs. In 2021, our Board approved a new ambition to invest up to £100m p.a. to build up to 800MW portfolio of solar, battery and transition assets. For British Gas domestic customers, we are developing a suite of smart home energy management tools allowing them to take greater control of their energy use like our remote heating control Hive Active Heating, which enables significant reduction in energy usage simply through greater control with just a tap on the app. We also provided zero carbon power to all our UK customers as a key step towards meeting our scope 3 climate goals. Another substantial strategic decision was to build electric vehicle (EV) enablement capabilities for domestic and business customers. This is a relatively new market for the company driven by our view of the opportunities in low carbon transport. We have built capability through acquisition and re-training in-house engineers which has led to us working with car manufacturers to support their customers and dealership networks, providing a one stop shop for charging solutions including charger infrastructure, energy management, financing, and optimisation. We have announced new partnerships with Ford, Honda and Vauxhall to offer a dedicated home charging installation service and EV tariffs. In 2021 we also launched a commercial proposition for Air Source Heat Pumps reflecting our assessment of the need to de-carbonise heating, starting with around 500 installs predominately in social housing properties in associations with Sanctuary Housing Finally, the Board recently approved the development of a low-carbon certification and offsetting business within our

		energy trading arm, to help customers with their net zero goals.
Supply chain and/or value chain	Yes	Research indicates that energy efficiency and decarbonisation is a priority for business and that concern on climate change is changing individuals' values and actions. Responding to these opportunities, in 2021 we upgraded our climate targets as part of our People and Planet Plan and set science-based targets for around 95% of our value chain covering our own emissions (scope 1&2) and our customers emissions (scope 3). Our most substantive strategic focus area across our value chain is helping our customers reduce their emissions. We have committed to helping our customers reduce their emissions by 28% by 2030 and to net zero by 2050. We aim to do this in the areas of power, heat and transport through providing customers with energy efficiency and optimisation services, clean energy generation and storage, clean energy supply and fuel switching solutions. On efficiency and optimisation , Centrica Business Solutions has created an integrated solutions platform which helps business customers better manage their energy use, through insights, optimisation via demand side response and generation or storage with solar or battery, effectively creating clean 'virtual power plants.' We have also developed a suite of home energy management tools such as Hive Active Heating which allow customers to take control of their energy like never before. On clean energy, we provided zero carbon power to all our UK customers through our standard or renewable tariffs. On fuel switching, we are working with car manufacturers to support their customers and dealership networks on EV readiness, providing a one stop shop for charging solutions including charger infrastructure, energy management, financing, and optimisation. To date we have announced partnerships with Ford, Vauxhall and Honda to offer a dedicated home charging and dealership installation services and EV tariffs and Lotus to develop a new model for EV ownership that fully integrates future mobility and energy through connected vehicles, connected homes and connected customers. We are also enabling our customers to switch to cleaner heating solutions through our newly

		created air source heat pump capability. In 2021 we also enhanced our climate focus in our upstream supply chain, initiating a requirement for all new large contract partners to have Net Zero commitments and published Carbon Reduction Plans.
Investment in R&D	Yes	Our 2015 strategic review identified a significant need for innovation & technology advancement to drive de-carbonisation across the energy sector out to 2035. In response, we established a £100m fund to identify, incubate & accelerate technologies that can help deliver products & services that meet our customers' needs that are changing due to climate change and that enable the low carbon transition. Key investments included: • Driivz, a start-up that offers end-to-end software solutions for electric vehicle charging • Greencom, developer of a platform which integrates distributed energy resources to create clean virtual power plants,. • Mixergy, developer of a smart water tank that efficiently heats and stores hot water providing energy savings. • SNRG, developer of all-electric, net zero carbon emission technology packages for new home designs including heat pumps, hot water tanks, mechanical ventilation with heat recovery, solar panels, batteries and EV chargers • HiiROC, developer of hydrogen production technology helping to combat climate change with affordable hydrogen produced at scale but without CO2 emissions One of our most substantive examples of low-carbon R&D was our work with over 200 homes and businesses in our £17m local energy market trial in Cornwall, which concluded in late 2020. In the biggest trial of its type in the UK we tested how flexible demand, generation and storage can reduce pressure on the electricity grid, enable the growth of renewables and avoid expensive network upgrades. We demonstrated how 310MWh of power could be traded successfully, with greenhouse gas savings of nearly 10,000 tonnes a year as a result. In 2021 we continued a significant R&D programme exploring the feasibility of converting our Rough gas storage facility into a Hydrogen storage facility as part of the Zero Carbon Humber project which aims to create the world's first net zero carbon industrial cluster by 2040, located in the Humber region, with the potential to capture and store around 10% of UK carbon dioxide emissions per year.

		Finally, Centrica's social impact grant programme, Energy for Tomorrow, is helping to build more inclusive and sustainable communities through innovation, support and funding. We aim to invest ~£1.5m over the next 3 years into community projects that are working towards net zero and can demonstrate a social impact.
Operations	Yes	Scenario analysis has identified risks and opportunities related to climate change with the potential to impact our operations in several ways, including physical risks related to extreme weather and transitional risks related to adapting our operations to deliver lower-carbon solutions for customers. For our remaining energy generation and production assets, we have identified risks relating to the increasing frequency and intensity of extreme weather events, such as flooding. Whilst these risks remain unlikely, there is precedent, for example, in 2008 our Brigg power station was closed for a short duration due to flooding leading to reduced output impacting profitability (there have been no more recent climate driven instances for our assets). The time horizon for these risks relate primarily to the individual asset life and is most relevant for Centrica out to the mid 2030's. To mitigate these risks, flood and extreme weather risks assessments are undertaken to ensure preparedness for such events. More strategically, we have identified that decarbonisation of the power sector will reduce the need for centralised, gas-fired power generation in our key markets leading to the decision that central power generation is no longer core to our strategy. We have subsequently divested or decommissioned the majority of our centralised power assets. Similarly in 2021 we announced the sale of the Norwegian assets of our oil and gas joint venture Spirit Energy and developed a run-off strategy for the remaining UK and Dutch assets driving down risk and the operational costs associated with implementing mitigation measures. Transitional risks and opportunities have also influenced our operational strategy. We have identified a need to re-train sections of our customer facing engineer workforce to deliver technology that we believe will play a key role in the energy transition. As a result, in 2021 we committed to recruit 3,500 apprentices by the end 2030. These apprentices will become Smart Energy Experts, installing

		smart meters and providing energy advice, with the potential to then cross-skill into areas such as installing EV charge-points or installing and servicing low carbon heating technologies such as heat pumps. Finally, we have announced a new target to be net-zero by 2045. This will ensure our operational emissions decline in line with Paris.

C3.4

(C3.4) 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 Assets	In responding to the macro-trends driving the energy transition, including risks & opportunities (R&O) relating to climate change, we have fundamentally repositioned our business. Specifically, we expect significant growth in low carbon energy sources, with an attendant reduction in demand for fossil-based energy over the coming decades. In turn this is driving significant opportunity in decentralised and low carbon energy solutions. In response, we are shifting capital expenditures from our asset businesses of centralised power generation and oil & gas exploration and production (E&P), to our customer-facing businesses, including British Gas and Centrica Business Solutions. From 2015-2022, we plan to re-direct over £1 billion of operating and capital resources to our growth areas and reduce our resource allocation to our asset portfolio by about the same amount. As part of this we have materially repositioned our portfolio through divestments and acquisitions. Examples include the acquisition of Restore, Europe's leading demand response aggregator, helping energy markets become more flexible and efficient and the acquisition of Vista Solar, a US based solar engineering company. We acquired Neas Energy, a provider of enhanced energy optimisation for decentralised energy assets and SmartWatt, a leading US energy services and solutions company. Moreover, we have divested all our centralised gas fired power assets in NA and UK and re-focussed our investment into small, peaking plants providing balancing services to intermittent renewables. Additionally, having placed our E&P business into the 69% owned joint venture Spirit Energy we have now announced the sale of the Norwegian assets and confirmed we will not be making any further capital investment into exploring for new hydrocarbon reserves.

		During our recent strategic and financial planning process, the Board approved management's proposed capital allocation out to 2025. Our assessment of climate R&O has significantly influenced our plans with major new areas of funding including plans to invest up to £100m per year into grid-scale renewable and energy transition assets. These strategic choices and actions as outlined in our Climate Transition Plan would see the portion of our capital expenditure invested in eligible green activities grow from less than 5% to over 50% by 2025. Climate-related R&O have the potential to impact our revenues in the near and long term. Decreased revenues may occur due to reduced energy demand, driven by improved efficiency and changing consumer behaviour; customers in the UK with smart meters reduce their consumption by 3% on average. Conversely, we expect increased revenues from our focus growth areas in distributed energy, smart connected energy solutions, low carbon heating and transportation. Direct costs can increase, including through reduced accuracy of energy demand forecasting, due to increased weather and climate variability. Demand prediction and management is estimated to cost our business over £150K per year.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

No, but we plan to in the next two years

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

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

2020

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

1,142,260

Base year Scope 2 emissions covered by target (metric tons CO2e)

4,346

Base year Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1,146,606

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2034

Targeted reduction from base year (%)

40

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

687,963.6

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

202,045

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

4,960

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

207,005

% of target achieved relative to base year [auto-calculated]

204.8657080113

Target status in reporting year

Achieved

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

Other, please specify

The trajectory for this target is aligned to well below 2 degrees Celsius for the first 15 years, and then 1.5 degrees Celsius for the latter 15 years (NZ1).

Please explain target coverage and identify any exclusions

In 2021, we launched our People & Planet Plan to strengthen our scope 1 & 2 targets following Board approval in 2020. This resulted in an interim target to reduce our emissions by 40% by 2034, towards our ambition of being a net zero business by 2045 (see ABS2 and NZ1). The target encompasses 100% of our global scope 1 and 2 emissions (normalised for divestment and acquisitions, based on operational control). It therefore tracks our progress as we shift away from carbon intensive assets towards providing services and solutions that help our customers live sustainably, simply and affordably. This empowers us to innovate and trial new technologies that aid our ability to provide market-leading customer offerings, while engaging colleagues on mitigating environmental impact. We consider our target to be science-based and have committed to secure validation by the SBTi. Unfortunately, the delayed publication of the SBTi's oil & gas guidance that we believe will apply to Centrica, has slowed the process.

As set out in our Climate Transition Plan which we published in 2021, we plan for reductions in emissions to be delivered via a variety of measures. This includes our

ambition is to build a zero-emission road fleet in the UK by 2025 and drive down emissions from colleague commuting which we're making good progress against having placed the largest commercial EV order in the UK and introduced an all-electric company car policy. We also plan to cut our UK property emissions by a further 50% by 2030 through continued efficiencies across our property portfolio, including through energy efficiency and low carbon technologies and tariffs. Meanwhile, we'll additionally aim to progress our strategic transformation to reduce activities in oil and gas production, cease exploration, and redirect investment into assets that drive the transition forward – from securing up to 800MW of low carbon and transition assets like solar and battery storage by 2025, to exploring the conversion of our Rough gas storage facility to store hydrogen.

Plan for achieving target, and progress made to the end of the reporting year

List the emissions reduction initiatives which contributed most to achieving this target

In 2021, we saw an 82% reduction against our baseline which is ahead of target due to a major outage at our Whitegate power station in Ireland. Our emissions will rebound in 2022 as our Whitegate power station resumes normal operations and so the target is still underway in the long term. Notwithstanding the above, savings were also secured in 2021 via a variety of proactive measures to progress towards net zero. For example, we continued to make our fleet lower carbon and more efficient with the roll-out of electric vehicles and smaller vehicles alongside optimising how we serve our customers to reduce mileage, while encouraging more colleagues into zero emission company cars. We also maintained focus on energy efficiency and optimisation across our property and assets with the installation and maintenance of solutions like solar, LED lighting and green tariffs alongside property rationalisation. Overall, our proportion of renewables increased by 16% compared to 2020.

Target reference number

Abs 2

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

1,142,260

Base year Scope 2 emissions covered by target (metric tons CO2e)

4,346

Base year Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1,146,606

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2045

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

202,045

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

4,960

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

207,005

% of target achieved relative to base year [auto-calculated]

81.9462832045

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

Other, please specify

The trajectory for this target is aligned to well below 2 degrees Celsius for the first 15 years, and then 1.5 degrees Celsius for the latter 15 years (NZ1).

Please explain target coverage and identify any exclusions

In 2021, we launched of our People & Planet Plan to accelerate our ambition to be a net zero business by 2045 and includes an interim target of 40% carbon reduction by 2034 (see Abs1). This is five years earlier than our previous net zero goal, as well as the UK Government's target for net zero. The goal includes 100% of our scope 1 and 2 global emissions (normalised for divestments and acquisitions, based on operational control).

Note, our approach when reporting base year emissions (as reported in Question C5.2) is to report our gross emissions that include divestments. We believe this provides a more accurate picture of the strategic decarbonisation process that Centrica is undergoing, which involves divesting high emitting assets, as well as closures and efficiencies. As such the 100% base year coverage referred to above, is the coverage of the target base-year (that allows for divestments) and not the gross base year emissions.

We consider the target to be science-based and have committed to have it validated. The process has been prolonged due to the delayed publication of the SBTi's oil & gas guidance, which they believe will apply to Centrica.

Plan for achieving target, and progress made to the end of the reporting year

As set out in our Climate Transition Plan which we published in 2021, we plan for reductions in emissions to be delivered via a variety of measures. This includes our ambition is to build a zero-emission road fleet in the UK by 2025 and drive down emissions from colleague commuting which we're making good progress against having placed the largest commercial EV order in the UK and introduced an all-electric company car policy. We also plan to cut our UK property emissions by a further 50% by 2030 through continued efficiencies across our property portfolio, including through energy efficiency and low carbon technologies and tariffs. Meanwhile, we'll additionally aim to progress our strategic transformation to reduce remaining activities in oil and gas production, cease all new exploration, and redirect investment into assets that drive the

transition forward – from securing up to 800MW of low carbon and transition assets like solar and battery storage by 2025, to exploring the conversion of our Rough gas storage facility to store hydrogen.

As a result of our focused action, we saw an 82% reduction against our baseline in 2021. While we expect emissions to rise in 2022 as our Whitegate Power Station resumes normal operations following outages the previous year, our performance is expected to remain on track against our target.

List the emissions reduction initiatives which contributed most to achieving this target

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

2020

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 11: Use of sold products

Intensity metric

Other, please specify

Grams CO2e per kWh of energy sold

Base year

2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

182.8

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

182.8

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

98

% of total base year emissions in all selected Scopes covered by this intensity figure

98

Target year

2030

Targeted reduction from base year (%)

28

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

131.616

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

21

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

150.2

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

150.2

% of target achieved relative to base year [auto-calculated]

63.6917786808

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

As part of our continued commitment to follow best practice, we reviewed our scope 3 target in 2020 and launched a new and improved target via our People & Planet Plan in 2021. We aligned the new target methodology and ambition in line with science which will enable our customers to achieve net zero energy use by 2050 at the latest (see NZ2), with an interim target to reduce the carbon intensity of their energy use by 28% by 2030. The target coverage is based on our emissions relating to the two relevant scope 3 categories (fuel and energy related activities as well as use of sold product) and normalised for acquisitions and divestments based on operational control. We consider our target to be science-based and have committed to gain SBTi validation in the next two years. Unfortunately, the delayed publication of the SBTi's oil & gas guidance that they believe will apply to Centrica, has slowed the process.

Plan for achieving target, and progress made to the end of the reporting year

As set out in our Climate Transition Plan, we plan to help our customers be net zero by encouraging their take-up of new and existing low carbon services and solutions that transform the way they live, work and move. This includes delivering energy efficiency and optimisation services alongside low carbon technologies and cleaner energy, with 2025 aspirations to drive action such as doubling the number of Hive customers to 2.5 million, achieving annual installs of up to 100,000 EV charge points and 20,000 heat pumps, while remaining a leader in the supply of zero carbon electricity for homes and businesses.

We're on track with our goal having achieved an 18% reduction in the carbon intensity of our customers' energy use which is equivalent to the annual emissions of 1.6m homes.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

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

Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Target year for achieving net zero

2045

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions

In 2021, we launched of our People & Planet Plan to accelerate our ambition to be a net zero business by 2045, with an interim target of 40% carbon reduction by 2034 (see Abs1). This is five years earlier than our previous net zero goal, as well as the UK Government's target for net zero. It includes 100% of our scope 1 and 2 global emissions (normalised for divestments and acquisitions, and based on operational control). We consider the target to be science-based and have committed to have it validated. The process has been prolonged due to the delayed publication of the SBTi's oil & gas guidance, which they believe will apply to Centrica.

In 2021, we shared our plans to achieve net zero via our Climate Transition Plan. And as set out in Abs1, we plan to become a net zero business by continuing to drive emissions out of our property, fleet and travel while shifting our wider operations to focus on low carbon and transition assets, with specific 2025 ambitions to help ensure we make strong progress against each of these areas. We've committed to review our Climate Transition Plan in full every three years and publish an update which will enable us to continue to adjust our plans and ensure we advance action in line with the evolving technology, policy and wider socio-economic landscape.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

Our Energy Marketing and Trading (EM&T) business has a ‘Green-Desk’ that provides certificates, offsets, neutralisation products and other ‘green’ products to our customers. We’re able to harness the power of our EM&T Green-Desk, to purchase the necessary instruments to ensure net zero by 2045. In the near term this may be in the form of certificates, such as REGOs for electricity consumption and RGGO’s for gas consumption.

In parallel, we’ll develop our strategy for neutralising the residual emissions at our target year 2045, and onwards. However, given our big focus on emissions reduction, we don’t anticipate having significant residual emissions. For the residual emissions that we anticipate will remain, we plan to use neutralisation tools that provide the greatest stakeholder, environmental and community benefit relative to the cost. This includes progressive purchases of Pending Issuance Units (PIUs) from nature-based solutions, such as woodlands. These will be planned to convert to Woodland Carbon Units (WCUs) in the appropriate years, to neutralise the modelled residual emissions released.

Planned actions to mitigate emissions beyond your value chain (optional)

No further details to disclose at this stage.

Target reference number

NZ2

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int1

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions

As part of our continued commitment to follow best practice, we fully reviewed our scope 3 customer target in 2020 and the Board approved an enhanced version as part of our People & Planet Plan which we launched in 2021. We aligned the new target methodology and ambition in line with science and set a target to enable our customers to achieve net zero energy use by 2050, with an interim target to reduce the carbon intensity of their energy use by 28% by 2030 (see Int1). Our target covers over 90% of our entire scope 3 emissions and 100% of our customers energy emissions focused on

our use of sold products in relation to electricity and gas. As such, we consider this target to be scienced based and have committed to get it validated by the SBTi, although this process has been impacted by the delayed publication of the SBTi's oil & gas guidance which we believe will apply to us.

To help our customers' homes and businesses transition to net zero, we'll encourage their take-up of new and existing low carbon services and solutions that'll help them live sustainably simply and affordably. As set out in our Climate Transition Plan and Int1, we'll expand energy efficiency and home energy management tools, encourage the take up of optimisation technology, support fuel switching, and ensure a cleaner energy supply, with 2025 ambitions to galvanise action and progress. To ensure we continue to accelerate action that's aligned to the changing technological, policy and social-economic landscape, we've committed to review our Climate Transition Plan in full every three years and publish an update.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

Our EM&T 'Green-Desk' provides certificates, offsets, neutralisation products and other 'green' products to our customers, both directly and via our consumer businesses. The Green-Desk will therefore play an important role in purchasing the necessary instruments to ensure our customers' energy is net zero by 2050. In the near term this may be in the form of certificates, such as REGOs for electricity consumption and RGGO's for gas consumption.

At the same time, we'll develop our strategy for neutralising the residual emissions from our customer target year, 2050 and beyond. We don't anticipate having significant residual emissions given our focus is on emissions reduction including zero carbon electricity, fuel switching, and zero carbon gas (biomethane and hydrogen). For the residual emissions that we have modelled, however, we'll use neutralisation tools that provide the greatest stakeholder, environmental and community benefit relative to the cost. This may be in the form of progressive purchases of Pending Issuance Units (PIUs) from nature-based solutions, such as woodlands. These will be planned to convert to Woodland Carbon Units (WCUs) in the appropriate years, to neutralise the modelled residual emissions expected.

Planned actions to mitigate emissions beyond your value chain (optional)

No further details to disclose at this stage.

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	8	8,200
To be implemented*	8	800,803
Implementation commenced*	3	17,505
Implemented*	8	132,736
Not to be implemented	0	0

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 buildings

Other, please specify

Insulation and upgrade of heating measures

Estimated annual CO2e savings (metric tonnes CO2e)

21,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 11: Use of sold products

Voluntary/Mandatory

Mandatory

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

7,000,000

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

219,000,000

Payback period

16-20 years

Estimated lifetime of the initiative

>30 years

Comment

Energy Company Obligation (ECO)
In 2013, the UK Government introduced ECO which requires major energy suppliers to fund the installation of energy efficiency products, such as insulation and boilers, to reduce residential energy use and carbon emissions. In the 2018-22 obligation phase, measures are directed towards fuel poor homes with more expensive measures and less carbon savings compared to the former obligation phase. Payback will be over 10-20 years on average depending on measures employed and is typically a much longer period for solid wall insulation.

In 2021, we invested £219m* and installed over 125,000 measures to around 60,000 households. We estimate this will deliver total lifetime savings of around 0.6mtCO2e**, equating to an annual saving of around 21,000tCO2e.

*Costs include administration fees.

**The Heating Cost Reduction Obligation (HHCRO) is reported to Ofgem in lifetime heating bill savings which is not reflective of the actual bill saving for the customer on a number of measures. The resultant saving is based on modelled figure, removing policy incentive adjustments with carbon as an estimate.

Initiative category & Initiative type

Energy efficiency in buildings
Other, please specify
Smart home solutions

Estimated annual CO2e savings (metric tonnes CO2e)

86,250

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 11: Use of sold products

Voluntary/Mandatory

Voluntary

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

21,840,100

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

344,000,000

Payback period

1-3 years

Estimated lifetime of the initiative

Ongoing

Comment

Connected and smart products
Home solutions like smart meters* and Hive Active Heating, can generate carbon savings by giving customers greater understanding and control over their energy. In 2021, we installed around 662,000 smart meters in homes and businesses as part of the mandated smart meter roll-out. We estimate this saved around 55,200tCO2e by providing customers with greater insight into energy consumption and costs, enabling them to target reduction. By the end of 2021, we'd installed 8.6m smart meters since 2009 which is more than any other energy supplier in the UK.

Meanwhile, customers using our Hive connected home solutions can enjoy greater control over their energy with just a tap on the app – from smart thermostats, valves, plugs and EV charging, to lights, cameras alongside contact and motion sensors. Customers for example with the smart thermostat, never have to heat an empty home or room. We calculate that the smart thermostat has saved customers around 31,050tCO2e collectively and £120 a year per customer.

As part of our Climate Transition Plan, we've set ambitions to deliver 6m more smart meters in homes by 2030 and double our Hive heating customers to 2.5m by 2025.

*While the smart meter roll-out is a supplier mandated initiative, 'voluntary' has been selected for the overall row response. This is because smart meters are only one aspect of our offering, coupled with the continued focus for growth on providing voluntary Hive products.

Initiative category & Initiative type
Low-carbon energy generation
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
7,750

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3,277,800

Investment required (unit currency – as specified in C0.4)
35,800,000

Payback period
4-10 years

Estimated lifetime of the initiative
16-20 years

Comment

Solar products

Solar can radically improve a businesses' carbon footprint because it typically replaces around 50% of their grid consumption with renewable energy. Businesses can then use their own generated solar in real-time, store it for later use to lower energy costs during peak demand, or feed it back into the grid to create an additional revenue stream. Solar therefore forms a core part of our Centrica Business Solutions offering, and in 2021 we completed solar installations that totalled around 30MWp. We estimate that this will help customers save around 7,750tCO2e and £3.3m annually. The majority of installs were delivered to large scale businesses and are a key part of helping them deliver targeted carbon and cost savings which enables them to turn energy into an opportunity by making them more resilient, competitive and sustainable.

We see significant opportunities for onsite solar and aim to materially grow our market share in the UK and US over the next five years.

Initiative category & Initiative type

Energy efficiency in production processes

Combined heat and power (cogeneration)

Estimated annual CO2e savings (metric tonnes CO2e)

12,300

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Scope 3 category 11: Use of sold products

Voluntary/Mandatory

Voluntary

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

12,959,570

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

149,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Combined Heat and Power (CHP) generators

By reaching efficiencies of more than 80%, CHPs can help many of our energy intensive customers meet their near-term carbon targets while improving resilience and cost. This high efficiency means CHPs will be one of the most enduring technologies using unabated fossil fuels and features in many net zero scenarios well into the 2040s. In

2021, we installed over 130 CHPs which we calculate reduced customer emissions by around 12,300tCO2e. We estimate the CHPs will also save nearly £13m on the energy bills of our commercial customers.

Initiative category & Initiative type

Transportation

Other, please specify

Company fleet efficiency, replacement and travel policy

Estimated annual CO2e savings (metric tonnes CO2e)

2,380

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

584,329

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

4,500,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Fleet and company cars

To achieve our ambition to have a zero-emission road fleet by 2025, we continued to implement our global low carbon fleet roadmap in 2021 which resulted in 2,380tCO2e avoided. This was primarily driven by an increase of 942 electric commercial vans replacing older diesel vans in the UK. We plan to build on this further, having placed an order with Vauxhall for 3,000 electric vehicles during 2020-21, which was the largest commercial EV order of its kind in the UK, and we'll order more vehicles as they become available. Efforts like these have saved around £584,329 during 2021, based on netting off the cost of electricity as well as calculating litres of diesel fuel saved, and applying the average price per litre.

We also encourage colleagues to take up low emission company cars. For example in 2021-22, we introduced a salary sacrifice scheme to help owning an EV more affordable, upgraded our company car policy to only allow EVs, and bought our onsite EV charge points up to around 150. This, together with the impact of our continued Flexible First policy that enables colleagues to choose when they want to work from home or come into the office, has led to our company car emissions reducing by 20%.

Initiative category & Initiative type

Low-carbon energy generation

Other, please specify

Air-source heat pumps

Estimated annual CO2e savings (metric tonnes CO2e)

3,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 11: Use of sold products

Voluntary/Mandatory

Voluntary

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

455,000

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

30,000,000

Payback period

11-15 years

Estimated lifetime of the initiative

21-30 years

Comment

Heat pumps

As we transition to net zero, we want to maintain our market leading position in home heating and we see heat pumps as one of the technologies that'll help us do that. This is because it's the best immediate options for many homes to decarbonise, especially those that are either off-grid or well insulated. In 2021, we launched a new heat pump business and installed over 300 air source heat pumps which saved 3,000tCO2e. And cumulatively, we've installed 500 air sourced heat pumps predominantly across social housing properties which to date, has been one of our key focus areas to ensure people have a warm and efficient home. While it's difficult to predict how quickly the UK heat pump market will grow, our aim is to ramp up capability and deliver up to 20,000 heat pumps a year by 2025.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

HVAC and uninterruptable power supply (UPS)

Estimated annual CO2e savings (metric tonnes CO2e)

34

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

19,700

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

897,300

Payback period

16-20 years

Estimated lifetime of the initiative

11-15 years

Comment

HVAC and uninterruptable power supply (UPS)
In pursuit of being a net zero company, we installed energy efficiency improvements during 2021 at our offices which included air conditioning and UPS upgrades at Cardiff, Leicester, and Edinburgh in the UK. These improvements have resulted in an annual reduction of around 34tCO2e and £19,700.

Initiative category & Initiative type

Energy efficiency in buildings
Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)

22

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

9,050

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

588,800

Payback period

>25 years

Estimated lifetime of the initiative

11-15 years

Comment

Building Energy Management System (BEMS)
To continually improve the operating efficiency of our headquarters in Windsor, we upgraded and optimised our BEMS. As a result, we'll save around 22tCO2e annually and over £9,000.

C4.3c

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

Method	Comment
Other Corporate Strategy	Corporate strategy Our strategy is driven by our purpose to help our customers live sustainably, simply and affordably and is underpinned by our People & Planet Plan goals. As the pace of change continues to accelerate, our business with its distinctive capabilities – energy supply, services and solutions, energy trading and optimisation - is responding, by focusing colleagues and technology on helping homes and businesses use energy more efficiently and sustainably. We also recognise the need to help enable a more flexible energy system and are deploying a range of technologies to help build the grid of the future with both electric and hydrogen technologies. As part of this, in 2021 we announced the sale of Spirit Energy's Norwegian exploration and production assets and our ambitions to increase investment in low carbon and transition assets including through Centrica Energy Assets whereby we'll invest up to £100m each year by 2025, to build towards the green Centrica of tomorrow. All of this is delivered through strong customer-facing brands such as British Gas, Hive, Bord Gáis Energy and Centrica Business Solutions.
Dedicated budget for low-carbon product R&D	Dedicated budgets for technology and innovation R&D We have budgets to support low carbon development because we know that to get to net zero, we need a mix of new and existing technologies. Some R&D budgets directly support the innovation of low carbon services and solutions for our customers. For example, since 2015, we've invested over £1bn to create and develop new customer-facing businesses which included R&D budget to expand Hive's family of products which has grown since its creation in 2013 to include smart thermostats, radiator valves, plugs lights and EV charging. We also use R&D budgets to trial and roll-out new or untested solutions that could enable the energy transition. Over the last couple of years for instance, we've been involved in cross-sector collaborations to realise the potential of hydrogen and carbon capture and storage by partnering to build the world's first industrial hydrogen

	cluster. And in 2022, we announced our involvement in a first-of-a-kind trial to create the first 'hydrogen village' which will enable us to gain vital learning to increase adoption across the UK. We also have our not-for-profit social impact fund, Energy for Tomorrow (EfT), which uses funds from feed-in-tariffs installed on nearly 300 schools to advance sustainable ideas that can drive the transition forward. The fund has an annual income of £600,000 and investments to date include the £17m Cornwall local energy market trial which concluded in 2020 and now provides a blueprint for a smarter, more flexible energy system that can enable more renewables to come online. The trial was the largest of its kind in the UK, and saw over 200 homes and business generating, storing and trading 310MWh of renewable electricity which saved nearly 10,000tCO2e. Furthermore, R&D budgets exist to support communities at a local level transition to net zero in an affordable way. We primarily do this through our EfT campaigns which launched in 2020 and awards grants of up to £100,000 to back sustainable initiatives from communities and start-ups. The impact fund has helped over 20 initiatives, including five new projects in 2021.
Compliance with regulatory requirements/standards	Mandatory schemes We and many of our customers are required to comply with regulations such as the Energy Company Obligation (ECO), the smart meter roll-out, the Energy Savings Opportunity Scheme (ESOS) and the EU Emissions Trading Scheme. We have used the platforms provided by legislation to underpin the strategic shift in our business towards becoming an energy services company, in addition to focusing on broader energy efficiency within our own operations. Within these areas we have dedicated budget and teams to support delivery. For example, our ECO obligation is delivered by our Services & Solutions business on behalf of the Energy Portfolio. This enables us to deliver the obligation on time and in the most cost-effective way so that we can minimise the cost per lifetime bill savings which often correlates with carbon savings.
Dedicated budget for energy efficiency	Internal carbon emission reduction targets Setting and publishing carbon reduction targets and plans that have executive and Board support, has stimulated our investment and focus on delivering low carbon technologies that reduce our internal carbon footprint and will help us become a net zero company by 2045 – from installing energy efficient and low carbon products across our property portfolio to transitioning our fleet to be fully electric. Towards this, we have specifically invested in placing an order for 3,000 electric vehicles (EVs) in 2020-21 with Vauxhall, which was the largest commercial EV order of its kind in the UK.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Smart Home Energy Management

Description of product(s) or service(s)

We provide smart products that can reduce energy's impact on the environment by giving customers greater control over their entire home (customers' scope 1 and 2). From smart thermostats, radiator valves, lights and plugs to EV charging, our Hive ecosystem of products can be controlled conveniently with just a few taps on the app which means that for example, customers never have to heat an empty home or light an empty room. In 2021, we sold nearly 498,800 smart thermostats which has the ability to save £120 and 20% on carbon emissions each year. Another key technology are smart meters which support the connected home and help customers cut their carbon emissions by providing increased visibility over how much energy is being used and its costs in real-time through the smart energy monitor or via the British Gas app. In 2021, we installed 662,000 smart meters which helps dual fuel consumption drop by around 4%, saving £21 on average per annum.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Smart meters with an average lifetime of 25 years and Hive Active Heating smart thermostats with an average lifetime of 15 years.

Reference product/service or baseline scenario used

Annual electricity and gas consumption in an average UK household (i.e. Average energy consumption in a home without a smart meter or smart thermostat (Source: Ofgem).

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

2.33

Explain your calculation of avoided emissions, including any assumptions

The calculation is based on the difference in household energy consumption, and hence emissions over a 25-year period for smart meters and a 15-year period for Hive Active Heating smart thermostat installations. Our calculation therefore excludes the emissions associated with smart meter and smart thermostat production, storage, and end-of-life. This is a limitation to our current methodology, and we are working to cover the full life cycle of Hive in the future.

We obtain the average UK residential gas and electricity consumption figures from Ofgem. Percentage savings per install for both gas and electricity are calculated using pre and post 1-year consumption data from customers with smart installations (smart group), and compared with a similar control group using a matched pair technique. The percentage of annual savings per new install is then used to calculate the energy savings per install and converted into carbon using DEFRA gas and electricity emission factors. We then calculate the difference, thus taking an attributional approach to the estimation.

Based on this, we calculate avoided emissions of 1.38tCO2e/smart meter installation. And 0.95tCO2e/Hive Active Heating smart thermostat installation.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.98

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Zero carbon electricity and green tariffs

Description of product(s) or service(s)

We want to offer customers different types of tariffs and agreements that meet their different needs, as well as provide peace of mind that they're making a positive contribution towards tackling climate change (customers' scope 2). That's why during 2019-21, we provided zero carbon electricity to all of our UK customers and aim to remain a leader in this area in the future. We've also introduced a range of green tariffs and bespoke energy deals. In 2018 for example, British Gas became the largest supplier to gain independent certification for its 100% renewable electricity tariff from the Carbon Trust, allowing customers to confidently report zero carbon emissions per kWh of electricity. And in 2020, British Gas introduced its Green Future renewable energy residential tariff which is one of the greenest tariffs on the market offering customers green gas as well as renewable electricity. In 2021, it was one of only two tariffs to be classified as gold standard by Uswitch in its independently verified accreditation scheme for renewable tariffs. And to make electric vehicles (EVs) even greener, we've introduced a green tariff especially for EVs that encourages customers to charge at night for less when the grid isn't under pressure, and we'll then match 100% of the electricity used by buying the same amount from renewable sources through Guarantees of Origin.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Zero carbon electricity sold (kWh) per customer (business and residential)

Reference product/service or baseline scenario used

Grid electricity

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

1.2

Explain your calculation of avoided emissions, including any assumptions

This calculation is based on the difference in carbon emissions between the sale of zero carbon electricity and UK grid electricity. We therefore only include the emissions associated with electricity generation.

The UK Defra grid electricity emission factor is applied to Centrica's total electricity sales to calculate emissions from our baseline scenario. This value is then equal to our total emissions avoided as all electricity sold to customers in 2021 was zero carbon.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

21.62

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Power

Solar PV

Description of product(s) or service(s)

We help customers reduce reliance on fossil fuels by investing in alternative renewable energy sources, such as solar energy (customers' scope 1 and 2).

In the UK and North America, we offered solar panels to commercial, industrial and public sector customers via Centrica Business Solutions, helping large scale energy users generate and manage their energy more intelligently. We see solar as a key technology for getting to net zero and in 2021, we delivered around 30MW of solar and established Centrica Energy Assets to increase our investment and focus in low carbon and transition assets going forwards. This will help us realise our ambition of securing up to 800MW in assets like solar and battery storage by 2025.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

MW of solar PV installed in 2021 with an estimated lifetime of 25 years

Reference product/service or baseline scenario used

Grid electricity

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

4,883

Explain your calculation of avoided emissions, including any assumptions

The calculation is based on the difference in emissions between solar PV generation and grid electricity emissions, thus taking an attributional approach to the estimation. The UK solar PV load factor is multiplied by the install capacity and maximum number of operational hours in 2021. This provides the total kWh from installations and using the Defra grid electricity emission factor, the equivalent kgCO2e/MW is calculated. This value is consequently equivalent to the total emissions avoided as solar PV generation is a zero-emission electricity source. We intend to cover a full life cycle analysis in the future.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.16

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

FTSE Russell Green Revenues Classification System

Type of product(s) or service(s)

Power

Other, please specify

Combined Heat and Power (CHPs)

Description of product(s) or service(s)

CHPs enable the energy demands of commercial properties to be met in an efficient manner (customers' scope 1 and 2). The units generate electricity on site while capturing usable heat produced in the process, rather than drawing electricity off the grid and using a traditional gas boiler for the equivalent heat. This process can be significantly more efficient than most grids, and therefore comes with an associated carbon saving. CHP's also remove transition and distribution losses and can enable flexible grid services, supporting the transition to a low carbon energy mix. We've installed over 3,000 CHPs with around 700MW in operation, mainly in the UK, Europe

and Mexico. Generators are expected to cut carbon emissions by up to 25% when compared to grid and boiler heat generation.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

MW of CHP installed in 2021 with an estimated lifetime of 20 years

Reference product/service or baseline scenario used

80% efficient gas boiler

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

1,762

Explain your calculation of avoided emissions, including any assumptions

The calculation is based on the difference in emissions between using a CHP unit instead of an 80% efficient boiler against the grid, thereby taking an attributional approach to the estimation. Our calculation includes the emissions avoided through the utilisation of heat produced, as well as the avoided grid electricity emissions. The heat equivalent of carbon avoided is calculated using the ratio of kWh heat output to gas used, alongside the Defra gas emission factor. The grid electricity emissions avoided are calculated using the ratio of electricity output to gas used, alongside the Defra grid electricity emission factor. The two values are then added together and multiplied by the average lifetime of a CHP unit (20 years) to calculate the total avoided emissions over the product lifetime.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.2

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Heating and cooling

Other, please specify

Heat pumps (Air, ground, wate, waste-sourced and hybrid)

Description of product(s) or service(s)

Heat pumps are thought to be the best immediate option for decarbonising millions of homes and businesses. For example, hybrid heat pumps could help up to a third of all homes cut carbon emissions by around 60% while heat pumps can help organisations significantly lower their carbon emissions by up to 80%. In recognition of the benefits, we installed around 500 air source heat pumps in 2021 and are looking to ramp up our delivery with an ambition of 20,000 heat pumps a year by 2025. We'll continue to review this ambition in line with market growth to maintain our market leading position in home heating as the world transitions to net zero.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Number of heat pumps installed in 2021 with an estimated lifetime of 15 years

Reference product/service or baseline scenario used

Old (G-rated) gas boiler

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

90

Explain your calculation of avoided emissions, including any assumptions

The calculation is based on the difference in emissions between the use of a heat pump and the use of an old (G-rated) gas boiler, thus taking an attributional approach to the estimation. Avoided emissions are calculated by taking the average annual savings from replacing an old gas boiler to a heat pump in an average sized, four-bedroom detached home (6000kgCO2/year) and multiplying this by the average lifetime of a heat pump (15 years).

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Conversion from Lifetime bill savings deemed scores (based on Reduced data Standard Assessment Procedure (RdSAP) methodology) as set in ECO, with in-use factor overlay and reductions to account for ECO uplift incentives

Type of product(s) or service(s)

Buildings construction and renovation

Other, please specify

energy efficiency measures

Description of product(s) or service(s)

Energy efficiency measures form a key part of getting to net zero. In addition to our everyday offer of providing heating efficiency measures to customers, we're also required to deliver the mandated Energy Company Obligation (ECO) which is focused on helping vulnerable people to reduce energy costs and lower emissions. Through ECO, we delivered a variety of energy efficiency measures (customers' scope 1 and scope 2), with core measures including wall insulation, loft/room/roof insulation, underfloor insulation and energy efficient boilers. In 2021, we funded over 125,000 measures to around 60,000 households. While ECO enables valuable cost and carbon savings for the community, we don't generate revenue or profit from the activity. We deliver ECO through a portfolio of specialist ECO partners, a cost that is passed through to the Energy Portfolio. Development of the 'able-to-pay' market will change that in the future.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Not applicable

Functional unit used

Not applicable

Reference product/service or baseline scenario used

Not applicable

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.6

Explain your calculation of avoided emissions, including any assumptions

Other, please specify: Conversion from Ofgem Lifetime bill savings deemed scores (which are based on Reduced data Standard Assessment Procedure (RdSAP) methodology) for measures funded as set out in ECO, with in-use factor overlay and reductions to account for ECO uplift incentives.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

C-EU4.6

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

Reducing methane emissions is an important part of how we manage our energy assets. In doing so, we can not only reduce the impact on climate change but also ensure the safety of our people and assets.

Power Generation: In 2021, Centrica had three power stations all of which had bespoke management systems in place with procedures for operation and maintenance, and incorporated hydrocarbon leak prevention, detection and mitigation. All power stations operate under a 14001:2015 certified management system and have an accurate understanding of their aspects, impacts and the necessary requirements to monitor and prevent methane emissions. In addition to this, any locations where a leak is considered higher risk, we employ an autonomous, high accuracy methane leak detection system. When triggered, the system is set up to notify the control room immediately, so that the relevant area can be isolated, and the leak stopped as soon as possible. Leaks can typically occur in the gas Above Ground Installation and gas turbines but in 2021, no leaks were detected at our power stations.

Exploration & Production and Storage: We've robust hydrocarbon leak reduction measures at all installations which we manage through a process safety framework. These measures include monitoring the integrity of subsea wells as well as active inspection and management of process equipment at offshore installations alongside those at our onshore terminal. We focus efforts on improving Asset Integrity and incorporating management of small bore tubing, flexible hoses and bolted joints, which are higher risk areas for leaks. During the 2021 reporting period, Spirit Energy initiated a project to operationalise GHG emissions control including methane. And consequently, an emissions management framework (EMF) was created and implemented on a pilot basis at the Morecambe Bay offshore upstream and onshore midstream assets. The framework aligns with Spirit Energy's existing production management system, and facilitates

real-time intra-day emissions monitoring, interventions, and management. We conservatively estimate that operational interventions from the EMF could result in approximately a 5-10% reduction in emissions. Following the successful pilot phase, Spirit Energy intends to roll-out the EMF across all operated assets. However, measuring methane release volumes is particularly difficult for fugitive emissions given their small size and consequently, it's difficult to quantify improvements although we believe we're making continued progress in controlling emissions due the robust processes we have in operation for flare and vent management which we also manage through the process safety measures and our hydrocarbon release prevention programme. Spirit Energy have drafted a methane action plan for our assets which is in line with one of the key deliverables of North Sea Transition Deal (NSTD).

[2021 update pending: At our Centrica Storage Easington site, optical leak surveys using infra-red cameras, have been conducted. This enables us to visualise and pinpoint potential sources of fugitive emissions and guard against leaks. During 2019, a gas management improvement plan was submitted to the Environment Agency as an Improvement Condition of the current permit and as part of the Humber Gathering System Project permit variation. The plan identifies and implements opportunities to further reduce the amount of gas flared and vented, as well as further recovery of primary gas product which we implemented in 2020. During 2020, we also conducted regulatory required fugitive emissions monitoring. This used an infra-red camera to inspect all active plant to identify any fugitive emissions. Leaks identified were added to the Leak Management Plan to allow for the management of the leaks, including immediate rectification. From these studies, it was calculated that during 2020, 3 tonnes of fugitive emissions were released from the Easington site. It had previously been estimated using a method of a number of flanges, pumps, joints amongst others, that 1,010 tonnes of natural gas was emitted as fugitive emissions per annum].

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, a divestment

Name of organization(s) acquired, divested from, or merged with

Direct Energy

Details of structural change(s), including completion dates

At the end of 2020 Centrica sold its North American retail business, Direct Energy, to NRG. The completion date was the 5th January 2021. A full year of emission data is reported for Direct Energy in 2020; and no data reported for 2021.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology Yes, a change in boundary	In 2021, we changed our default reporting approach from an equity organisational boundary to an operational control boundary approach, in order to align with the more commonly used organisational boundary approach. This new approach also enables us to report on the emissions that we have the most influence over and aligns with the approach used for our net zero People & Planet Plan targets where we've committed to be a net zero business by 2045. We have also changed our reporting approach from a Scope 2 location-based approach to a market-based approach. This enables us to reflect our decisions on where we source our imported power.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	This is the first time that we have changed our organisational boundary approach and therefore there is no precedent or formal policy. Our approach is to update our Bases of Reporting (BoR) documents to reflect the new approaches and then align current and historical data with the updated BoR. Annually, we have 3rd party assure to ensure our reporting aligns with the updated BoR. Following the change to operational control, we have recalculated our historical reporting as well as applying the new approach to our current reporting year. Moving to an Operational Control approach results in the exclusion (from Scope 1 &2) of our non-operated nuclear interests, the exclusion of Spirit Energy joint venture from inception in 2017 to 2021, as

		well as the exclusion of our business customers' CHPs which we have equity in. The associated emissions from these non-operated interests are now reported in our Scope 3 Investment category. Similarly we have applied the new market based Scope 2 reporting approach to historical years as well as the current year. Note, we also report our Location based Scope 2 emissions separately. Our policy is not to remove the historical emissions associated with divestments from our gross Scope 1 & 2 emissions, hence historical Direct Energy emissions are included (note, we do exclude divestments from the historical data of our target emissions). We have an informal materiality threshold of 5%, however this has not been used in any of the recalculation assessments.

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

1,326,139

Comment

We have moved from a 2015 baseline to a 2019 baseline to bring our gross emission baseline in line with our target baselines. 2019 is considered a 'typical' year, being pre-Covid and with no major outages from high emitting assets

Scope 2 (location-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

20,650

Comment

We have moved from a 2015 baseline to a 2019 baseline to bring our gross emission baseline in line with our target baselines. 2019 is considered a 'typical' year, being pre-Covid and with no major outages from high emitting assets

Scope 2 (market-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

11,562

Comment

Previously we have used our Location based emissions as a proxy for our baseline market based emissions. However, we are now able to report actual market based emissions for our baseline and subsequent years

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

1,025,744

Comment

This is based on OPEX spend and using the classification of the spend, the emissions are calculated using the Quantis Suite tool. In latter years, we have moved to a more accurate methodology

Scope 3 category 2: Capital goods

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

82,600

Comment

This is based on CAPEX spend and using the classification of the spend, the emissions are calculated using the Quantis Suite tool.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

52,168,395

Comment

This covers sub categories 3a, 3b, 3c, and 3d. Category 3d 'Customer elecricity emissions' is by far the most significant (51,995,467TCO2e), relating to the emissions associated with the power we sell to our cutomers

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

The emissions associated with this category are immaterial and not relevant. The emissions will be captured in Category 1

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

905

Comment

This is calculated based on the volume, type and fate of the waste generated.

Scope 3 category 6: Business travel

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

9,318

Comment

This includes rail, flights and grey fleet emissions

Scope 3 category 7: Employee commuting

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

14,844

Comment

This includes employee commuting and the optional working from home emissions.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category is not relevant

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

The emissions associated with this category are immaterial and not relevant. The emissions will be captured in Category 1.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

69,234,770

Comment

These are the emissions associated with the gas sold to our customers which they in-turn burn.

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant

Scope 3 category 15: Investments

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

982,864

Comment

The emissions associated with our interests (equity) in UK nuclear and Spirit Energy joint venture.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This Category is not relevant

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011
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)

225,769

Start date

January 1, 2021

End date

December 31, 2021

Comment

Whitegate power station is typically our most signifcant emitter, however due to a 12 month shut down, its emissions were very low in 2021, resulting in very low Centrica level emissions. With the power station back on line, we anticipate our emissions will return to similar levels to previous years in 2022.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

982,468

Start date

January 1, 2020

End date

December 31, 2020

Comment

Following the move to an operational control boundary, we have re-stated our historical emissions.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

1,326,139

Start date

January 1, 2019

End date

December 31, 2019

Comment

Following the move to an operational control boundary, we have re-stated our historical emissions.

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

In 2021 we moved our default reporting approach to being market-based; however, we also calculate and report the Location-based approach.

C6.3

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

Reporting year

Scope 2, location-based

10,350

Scope 2, market-based (if applicable)

4,838

Start date

January 1, 2021

End date

December 31, 2021

Comment

Most of our power in the UK is on a green tariff, but outside of the UK, it is mainly residual.

Past year 1

Scope 2, location-based

13,721

Scope 2, market-based (if applicable)

7,111

Start date

January 1, 2020

End date

December 31, 2020

Comment

Past year 2

Scope 2, location-based

20,650

Scope 2, market-based (if applicable)

11,562

Start date

January 1, 2019

End date

December 31, 2019

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

Emissions in reporting year (metric tons CO2e)

622,964

Emissions calculation methodology

Hybrid method

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

17

Please explain

Our Category 1 emissions are calculated on a hybrid approach that includes the spend-based method using the Quantis Suite tool as well as supplier-specific method. In 2021 launched an initiative to improve our Supplier emission data quality. This involved identifying the potential top 50 emitting suppliers and requesting actual supplier specific data from them. Where this was provided by the suppliers, we substituted it for the estimated data. To date we have been able to substitute 10% of the estimated data for Category 1 supplier specific data.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

49,624

Emissions calculation methodology

Hybrid method

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

9

Please explain

Our Category 2 emissions are calculated on a hybrid approach that includes the spend-based method using the Quantis Suite tool as well as using the supplier-specific method. In 2021, we launched an initiative to improve supplier data quality. This

involved identifying the potential top emitting suppliers and requesting supplier-specific data from them. Where this was provided by the suppliers, we substituted it for the estimated data. To date we have been able to substitute 9% of the estimated data for Capital Goods supplier-specific data.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,238,787

Emissions calculation methodology

Supplier-specific method
Average data method

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

0

Please explain

97% of the emissions in this Category relate to Cat. 3d and relate to the Power we purchased for resale to our customers. The emissions are calculated based on the carbon intensity of the fuel we sell. The remainder of the emissions are associated with Cats. 3a, 3b and 3c.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Centrica's main products sold are gas and electricity. These are transported through pipes and wires as opposed to vehicles. They do not naturally fit in this category. The small volume of actual upstream transportation is not relevant from a materiality perspective. Where there are emissions these will be captured in Category 1.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,552

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

We capture our waste volumes by type (office versus operational) and by disposal method (recycling, landfill, incineration. We apply the relevant DEFRA emission factors to the waste based on their category.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

768

Emissions calculation methodology

Hybrid method

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

83

Please explain

Business Travel includes 4 components: grey fleet, flights, rail and helicopter travel to our offshore facilities. The helicopter fuel emissions (31%) are based on actual fuel consumption from the service operator; the grey fleet emissions (52%) are based on actual mileage claims from employees using their own vehicles; flights are based on distance between departure and destination for the more expensive flights, but based on spend for the cheaper flights; and rail is purely based on spend.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,581

Emissions calculation methodology

Average data method

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

0

Please explain

Employee commuting includes both commuting emissions and employee working from home emissions. These are based on number of employee visits to the office and number of employees working from home. The emissions are estimated using country specific estimates and emission factor data.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Centrica's reporting approach means it includes all its leased assets in its Scope 1 and Scope 2 inventories, therefore this category is not relevant and not calculated.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Centrica's main products sold are gas and electricity. Theses are transported through pipes and wires as opposed to vehicles. They do not naturally fit in this category. The small volume of actual downstream transportation is not relevant from a materiality perspective. Where there are emissions these will be captured in Category 1.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

As Centrica’s primary products are electricity and gas that are used as end products, the emissions from the processing of sold intermediate products is not relevant.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

19,888,201

Emissions calculation methodology

Fuel-based method

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

100

Please explain

This is a relevant component of our scope 3 emissions in respect to its size (70% of our scope 3) and is relevant to the sector.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

We sell negligible volumes of product that requires end of life treatment, relative to the quantity of gas, electricity and services that we supply. These emissions are therefore not relevant.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Centrica only leases a few properties. The emissions have previously been calculated to be immaterial at approximately 0.00004% They do not expose the organisation to risk and hence, are not considered relevant.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Centrica operates a Franchise in the UK, the Dyno Franchise. We do not track franchisee carbon emissions; however, previously these calculated emissions equated to less than 0.001% of our scope 3.

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

706,659

Emissions calculation methodology

Investment-specific method

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

100

Please explain

In 2021 Centrica moved from an equity approach to an operational control reporting boundary approach. As a result, our non-operated investments are now no longer included in Scope 1 &2, but in the Investment category of Scope 3. This includes our 69% interest in Spirit Energy joint venture and our 20% interest in UK nuclear power assets. We have calculated the emissions based on actual emission data from our investments.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date
January 1, 2020

End date
December 31, 2020

Scope 3: Purchased goods and services (metric tons CO2e)
925,973

Scope 3: Capital goods (metric tons CO2e)
84,248

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
47,458,093

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)
1,476

Scope 3: Business travel (metric tons CO2e)
1,320

Scope 3: Employee commuting (metric tons CO2e)
9,687

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

67,412,093

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

788,707

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

These have been restated following a review of relevance, a change to operational boundary and an improvement in methodology in some categories.

Past year 2

Start date

January 1, 2019

End date

December 31, 2019

Scope 3: Purchased goods and services (metric tons CO2e)

1,025,744

Scope 3: Capital goods (metric tons CO2e)

82,600

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

52,168,395

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

905

Scope 3: Business travel (metric tons CO2e)

9,318

Scope 3: Employee commuting (metric tons CO2e)

14,844

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

69,234,770

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

982,864

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

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	1,600	This includes the emissions associated with the biofuel component of forecourt fuel, biomass and biofuel in our offices. Previously we reported based on an equity boundary which included some of our customer CHPs that used landfill gas use, in 2021 we moved to an operational control approach and as a result the landfill gas is no longer in scope.

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

0.00001564

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

230,607

Metric denominator

unit total revenue

Metric denominator: Unit total

14,744,000,000

Scope 2 figure used

Market-based

% change from previous year

61.4

Direction of change

Decreased

Reason for change

In 2021 Centrica's revenue decreased by 40% following the divestment of Direct Energy and the impacts of Covid. However, our emissions reduced by 77%. This was mainly as a result of our highest emitting asset, Whitegate Powerstation, not operating for most of 2021. However, other contributing factors for our emission reductions include emission reduction initiatives such as our commitment to electrify our commercial fleet and through an increased proportion of renewable power in our offices and plant. Resulting in an overall carbon intensity reduction of 61%.

Intensity figure

0.372

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

104,035

Metric denominator

megawatt hour transmitted (MWh)

Metric denominator: Unit total

279,517

Scope 2 figure used

Market-based

% change from previous year

3.9

Direction of change

Decreased

Reason for change

With Whitegate power station not operating for most of 2021, the more efficient gas peaking plant at Brigg influenced the efficiency to a greater degree, reducing the overall CI by 3.9%.

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
SF6	0	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	532	IPCC Fourth Assessment Report (AR4 - 100 year)

N2O	389	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	14,608	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	210,240	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)
NF3	0	IPCC Fourth Assessment Report (AR4 - 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	4	0	100	These emissions relate to fugitive emissions from the gas turbines (unburnt hydrocarbons in turbine exhaust)
Combustion (Electric utilities)	104,035	6.7	0	104,204	The methane and carbon dioxide from the combustion of gas and diesel at our power stations
Combustion (Gas utilities)	0	0	0	0	We do not operate gas utilities
Combustion (Other)	0	0	0	0	
Emissions not elsewhere classified	0	0	0	15,675	The other emissions are N2O and therefore cannot be categorised in the CH4, SF6 or C02 options above

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	159,828
North America	672
Ireland	64,603
Netherlands	171
Hungary	234
Italy	158
Denmark	32
Belgium	72

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)
British Gas Energy	434
Bord Gais Energy	64,601
Centrica Business Solutions (CBS)	59,037
Centrica Storage Ltd (CSL)	76,559
British Gas Solutions & Services (BG S&S)	24,632
Energy Marketing & Trading (EM&T)	295
Functions	211

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	Comment

Electric utility activities	119,979	This is the sum of our power generation emissions. We do not offset therefore the gross and net are the same.

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	1,486	Decreased	0.15	Due to 'changes in renewable energy consumption' during the year, there has been a 0.15% reduction in total Scope 1 & 2 emissions compared to 2020. Our on-site generation increased in 2021 compared to 2020 (14MWh increase in on-site solar electricity generation and 74MWh increase in solar heat generation), the on-site consumption of this renewable energy means a reduction in the consumption of non-renewable energy. Using the average emission factors for electricity and gas, this equates to a saving of 16.4tCO2e. The proportion of purchased renewable power consumption increased by 16% in 2021, from 60% on a green tariff in 2020 to 70% on a green tariff in 2021. This equates to 6,919 MWh more renewable power being consumed in 2021. Using a grid average emission factor for electricity, this equates to 1469 tCO2e avoided in 2021 compared to 2020. Centrica's total 2020 emissions were 989,578, therefore, combined, these emission reductions equate to a 0.15% decrease as a result of a change in

				renewable consumption compared to 2020. Therefore as per the calculation methodology stipulated: =(sum(-16.4, -1469)/989578)*100 =-0.15%.
Other emissions reduction activities	2,381	Decreased	0.24	To achieve our ambition to have a zero-emission road fleet by 2025, we continued to implement our global low carbon fleet roadmap in 2021 which resulted in 2,381tCO2e avoided. This was primarily driven by an increase of 942 electric commercial vans replacing older diesel vans in the UK. Centrica's total 2020 emissions were 989,578, therefore, a 2,381 tCO2e emission reduction equates to a 0.24% reduction as a result of other emission reduction activities compared to 2020. Therefore as per the calculation methodology stipulated: (-2381/989578)*100 = -0.24%.
Divestment	38,960	Decreased	3.9	Due to 'divestments' during the year, there has been a 3.9% reduction in total Scope 1 & 2 emissions compared to 2020. We sold Kings Lynn in H1 2020, meaning there were 17236 tCO2e of emissions in 2020 but none in 2021. We sold Peterborough in H1 of 2021, resulting in a decrease of 8,314 tCO2e compared to 2020. We also sold our Direct Energy business at the end of 2020, resulting in 13410 tCO2e avoided in 2021 compared to 2020. Centrica's total 2020 emissions were 989,578, therefore, combined, these emission reductions equate to a 71.2% reduction as a result of reduced output compared to 2020. Therefore as per the calculation methodology stipulated: (sum(-13419,-17236,-8314)/989578)*100 = -3.9%.
Acquisitions	0	No change	0	No acquisitions
Mergers	0	No change	0	No mergers
Change in output	704,725	Decreased	71.2	Due to 'changes in output' during the year, there has been a 71% reduction in total Scope 1 & 2 emissions compared to

				2020. Our main emitting asset, Whitegate power station, had an outage for most of 2021, resulting in a decrease of 703,414 tCO2e compared to 2020. COVID continued to have an impact on our field engineers, resulting in reduced visits and therefore reduced consumption of fuel in the van fleet. This resulted in a 1,311 tCO2e reduction in BG S&S emissions in 2021 compared to 2020. Centrica's total 2020 emissions were 989,578, therefore, combined, these emission reductions equate to a 71.2% reduction as a result of reduced output compared to 2020. Therefore as per the calculation methodology stipulated: (sum(-703414, -1311)/989578)*100 = -71.2%.
Change in methodology	0	No change	0	no changes from change in methodology
Change in boundary	0	No change	0	No changes from change in boundary
Change in physical operating conditions	0	No change	0	no changes from changes in physical operating conditions
Unidentified	11,323	Decreased	1.144	Due to 'Unidentified changes' during the year, there has been a 1.144% reduction in total Scope 1 & 2 emissions compared to 2020. 11,323 tCO2e of additional emission reductions occurred in 2020 but the cause is unidentified. Therefore as per the calculation methodology stipulated: (-11,323/989578)*100 = -1.144%.
Other	63	Decreased	0.006	Due to 'other- Covid impacts' during the year, there has been a 0.006% reduction in total Scope 1 & 2 emissions compared to 2020. 2021 had greater working from home compared to 2020, due to lockdown only starting in March 2020. This meant that our office based business units, British Gas Energy, Energy Marketing and Trading; and Functions, reduced their emissions by 63 tCO2e in 2021 compared to 2020. This is

				a combination of less company car travel and less office use. Centrica's total 2020 emissions were 989,578, therefore the 61 tonne emission reductions equates to a 0.006% reduction as a result of 'Other - Covid impacts' compared to 2020. Therefore as per the calculation methodology stipulated: (-63/989578)*100 = -0.006%.

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?

Market-based

C8. Energy

C8.1

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

More than 0% but less than or equal to 5%

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)	7,684	1,101,821	1,109,505
Consumption of purchased or acquired electricity		30,045	13,102	43,147
Consumption of purchased or acquired heat		0	1,436	1,436
Consumption of self-generated non-fuel renewable energy		93		93
Total energy consumption		37,822	1,116,359	1,154,181

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	Yes
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

73

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

73

MWh fuel consumed for self-generation of cooling

0

Comment

This includes wood pellets used in our office biomass boilers. The pellets are on the BSL list under the Renewable Heat Incentive Scheme.

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

7,611

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

7,611

MWh fuel consumed for self-generation of cooling

0

Comment

This equates to the biofuel component in the forecourt fuel we purchase. As its already blended with mineral diesel on purchase, we have no way of knowing if it is sustainable certified or not, so have taken the precautionary approach and assumed its not sustainable certified.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

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 cooling

0

Comment

We do not use hydrogen or other renewable fuels.

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

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 cooling

0

Comment

We do not use coal.

Oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

161,493

MWh fuel consumed for self-generation of electricity

859

MWh fuel consumed for self-generation of heat

160,634

MWh fuel consumed for self-generation of cooling

0

Comment

This includes vehicle combustion engine oils under the heat category, as well as some oil used for onsite power generation.

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

940,328

MWh fuel consumed for self-generation of electricity

674,245

MWh fuel consumed for self-generation of heat

264,344

MWh fuel consumed for self-generation of cooling

1,739

Comment

The majority of gas consumed is in our power stations and gas engines (Whitegate, Brigg, Peterborough). The CSL gas consumed is categorised as heat because it is mainly used in compressors as opposed to for elec generation.
We use site specific EFs for our upstream plant gas consumption based on analysis of calorific value. However the downstream gas consumption EF is based on the HHV

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

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 cooling

0

Comment

We do not use other non renewable fuels.

Total fuel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

1,109,505

MWh fuel consumed for self-generation of electricity

675,105

MWh fuel consumed for self-generation of heat

432,661

MWh fuel consumed for self-generation of cooling

1,739

Comment

Unable to specify a heating value as this is a total, that combines different heating values.

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)

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

No generation

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

No generation

Oil

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

No generation

Gas

Nameplate capacity (MW)

783

Gross electricity generation (GWh)

294

Net electricity generation (GWh)

287

Absolute scope 1 emissions (metric tons CO2e)

119,978.88

Scope 1 emissions intensity (metric tons CO2e per GWh)

408

Comment

With Whitgate, our most efficient power generator, being off-line for much of 2021, the less effificent peaking plants have generated a greater proportion of the power compared to previous years. This has resulted in an increase in the carbon intensity. Note that Peterbough site (OCGT and gas engine) was sold mid 2021, therefore the emissions and name plate capacity are included for this submission.

Sustainable 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

No generation

Other 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

No generation

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

No generation

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

No generation

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

No generation

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

No generation

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

No generation

Wind

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

No generation

Solar

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

No generation

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

No generation

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

No generation

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

No generation

Total

Nameplate capacity (MW)

783

Gross electricity generation (GWh)

294

Net electricity generation (GWh)

287

Absolute scope 1 emissions (metric tons CO2e)

119,978.88

Scope 1 emissions intensity (metric tons CO2e per GWh)

408

Comment

We only operate gas fuelled power generators.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of electricity (MWh)

15.75

Consumption of heat, steam, and cooling (MWh)

77.12

Total non-fuel energy consumption (MWh) [Auto-calculated]

92.87

C-EU8.4

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

No

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 organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

n/a

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

n/a

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

n/a

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

37,000,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

100

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

25

Explain your CAPEX calculations, including any assumptions

In Centrica's Climate Transition Plan we announced the ambition to invest up to £100m annually in low carbon and flexible generation. While the actual figure invested each year will vary, we are hoping to increase investment to around this level rapidly and seize any opportunities we identify.

The three key technologies we are currently focusing our CAPEX planning around are solar, battery and flexible gas peakers (with the potential for hydrogen conversion). The proportion of these technologies our investment will deploy is highly contingent on market conditions and is not certain, it will likely vary over the next five years. Under current market conditions we anticipate that approximately 50% will go towards solar, with 25% to both batteries and flexible peakers.

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

50

Explain your CAPEX calculations, including any assumptions

In Centrica's Climate Transition Plan we announced the ambition to invest up to £100m annually in low carbon and flexible generation. While the actual figure invested each year will vary, we are hoping to increase investment to around this level rapidly and seize any opportunities we identify.

The three key technologies we are currently focusing our CAPEX planning around are solar, battery and flexible gas peakers (with the potential for hydrogen conversion). The proportion of these technologies our investment will deploy is highly contingent on market conditions and is not certain, it will likely vary over the next five years. Under current market conditions we anticipate that approximately 50% will go towards solar, with 25% to both batteries and flexible peakers.

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

25

Explain your CAPEX calculations, including any assumptions

In Centrica's Climate Transition Plan we announced the ambition to invest up to £100m annually in low carbon and flexible generation. While the actual figure invested each year will vary, we are hoping to increase investment to around this level rapidly and seize any opportunities we identify.

The three key technologies we are currently focusing our CAPEX planning around are solar, battery and flexible gas peakers (with the potential for hydrogen conversion). The proportion of these technologies our investment will deploy is highly contingent on market conditions and is not certain, it will likely vary over the next five years. Under current market conditions we anticipate that approximately 50% will go towards solar, with 25% to both batteries and flexible peakers. We have categorised batteries as other renewable.

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

N/A

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

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
Other, please specify Smart Systems	Large scale commercial deployment	≤20%		Hive, within the British Gas business supplies new technologies and energy efficient solutions to residential customers. Hive products, including the smart thermostat, allow customers to better understand and manage their energy usage. Following five years of material losses, management has announced that the segment will no longer be separately reported, and investment will be stripped back. Hive made an operating loss of £55m in 2020, however there is no clear 2021 figure reported. Over the period 2018-2020, the total operating losses were £224m, with further capital expenditure of c£80m.
Distributed energy resources	Large scale commercial deployment	≤20%		Centrica Business Solutions (CBS) reported a reduced adjusted operating loss of £52m. CBS supplies new

				technologies, flexible generation and energy efficient solutions to commercial and industrial customers.
Digital technology	Small scale commercial deployment	≤20%		In 2017, Centrica created of an innovation fund to identify, incubate and accelerate new technologies and innovations, with 30m to date invested in thirteen projects, including: - 7 Companies in the distributed/ decentralised energy system space. These include; a) a blockchain solution that standardises electric grid data and provides software tools so utilities can run local energy markets b) Linear Generator provider that offers businesses affordable flexible and reliable clean power from natural gas 5 companies in the connected world space. These include; a) technology specialists in industrial cyber security b) Cutting-edge in-home monitoring and fall detection, empowering people to live independently for longer Centrica has successfully exited 3 of these companies.
Energy storage	Large scale commercial deployment	≤20%		Hydrogen storage – Exploring the repurposing of Centrica's offshore Rough facility. Previously used for seasonal storage of gas to support the UK during winter, we are exploring how this may transition to store Hydrogen in a similar capacity. While there are a range of possible pathways to Net Zero – depending on factors such as future innovations in electricity generation

				and heating technologies, and changes in consumer behaviour – it is widely accepted that hydrogen is likely to play a significant role. This reflects that hydrogen appears to be the most effective decarbonisation option in many sectors, and compliments alternative low carbon solutions in other sectors. Producing hydrogen at scale will require hydrogen storage facilities to manage the inevitable fluctuations in production, particularly for 'green' hydrogen generated by renewable energy sources, and consumption, due to seasonality in demand. Our analysis of the National Grid Energy System Operator's ("NGESO") 2020 Future Energy Scenarios ("FES") suggests demand for hydrogen storage could be in the region of 3.5 TWh by 2035, and as much as 18 TWh by 2050. Indeed, NGESO forecasts strong demand for hydrogen storage across all the FES despite variation in the forecast volume of hydrogen use, suggesting hydrogen storage will play an important role in delivering Net Zero. A repurposed, hydrogen-ready Rough would have the capacity to meet predicted demand beyond 2040 and would be able to support around half of the total expected demand by 2050. There would also be significant technical and environmental advantages associated with repurposing the existing infrastructure, and geographical advantages associated with Rough's location offshore within a nascent Hydrogen 'Hub' Zone and close to offshore wind capacity off the North East coast.

				The potential benefits to consumers associated with repurposing Rough are significant. In addition to those outlined above, during the construction and natural gas-H2 blended phase Rough could increase the resilience of the UK natural gas market to unexpected shocks, improve liquidity in the market, and facilitate job creation and growth in the Humber and wider region in the 2020s.

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

dnv-assurance-statement-2021.pdf

Page/ section reference

Pages 1-2

Relevant standard
ISAE3000

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

dnv-assurance-statement-2021.pdf

Page/ section reference
Pages 1-2

Relevant standard
ISAE3000

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

dnv-assurance-statement-2021.pdf

Page/ section reference

Pages 1-2

Relevant standard

ISAE3000

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: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Use of sold products

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

dnv-assurance-statement-2021.pdf

Page/section reference

The Carbon intensity of customer energy use (gCO2e/kWh) metric assured includes 97% of the emissions associate with Fuel and energy-related activities not in scope 1 and 2 (this is actually 100% of Cat 3d, emissions from electricity sold, under scope 3 protocol guidance) and 100% of the use of sold products. This in total is equivalent to 91% of our total scope 3, and 99.8% of the total emissions from the two scope 3 categories selected. Further detail is included in our basis of reporting.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

99.8

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	Progress against emissions reduction target	ISAE3000	Progress against target: Reduce carbon intensity of customers' energy use by 28% by 2030 (Percentage progress in the reporting year against 2019 baseline) (Percentage, %) is included in our DNV assurance.

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

UK 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

28

% of Scope 2 emissions covered by the ETS

0

Period start date
January 1, 2021

Period end date
December 31, 2021

Allowances allocated
0

Allowances purchased
64,239

Verified Scope 1 emissions in metric tons CO2e
64,239

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
Whitegate power station was in an outage for most of 2021

UK ETS

% of Scope 1 emissions covered by the ETS
53

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1, 2021

Period end date
December 31, 2021

Allowances allocated
12,418

Allowances purchased
106,852

Verified Scope 1 emissions in metric tons CO2e
119,270

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment

Peterborough Power station was sold mid way through 2021

C11.1d

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

UK Emissions Trading System (EU ETS)

The cost of carbon has become an important factor in all investment decisions taken by Centrica in the power and gas markets. We actively use all available methods to manage our exposure to the risk of rising carbon costs through abatement and emissions trading. Centrica has been actively trading in the EU Emissions Trading market for over ten years and has also been active in the international carbon credit market. We aim to meet the cost of our carbon emissions in the most economical manner for our customers and shareholders. Centrica believes that flexibility is important to help installations manage their carbon exposure. We are constantly looking to manage our carbon position using both abatement and carbon credits. Using the trading markets enables us to effectively manage cost exposures arising with regards to carbon pricing through the UK ETS. We also have in place robust procedures to ensure verification of our emissions and subsequent surrender of sufficient emissions allowances is carried out in line with the scheme requirements.

An example of our strategy for complying with UK ETS is our CBS Power business, which factors in a carbon escalator price (based on the UK ETS price) into the investment case for fossil fuelled assets to test the viability in gaining future market contracts. All Centrica's power business is certified to ISO14001, the international standard for environmental management systems and are regularly audited by external specialists from an independent accredited certification body. The system for managing UK-ETS uses a two-stage process comprising a portfolio level Standard that sets out the minimum requirements to be met across the portfolio for compliance with the UK-ETS regulations and the associated guidelines. This specifies the overarching requirements for compliance at installation level including the contents of the monitoring and reporting plan, the identification of emission sources, categorisation of tiers, uncertainty requirements, sampling plan requirements, data management/ control/ CO2 calculation requirements, risk assessment processes and training/ competency needs. This is then enacted by site level procedures that set out the details of the individual site processes used to satisfy the company Standard including the roles and responsibilities and the data flow activities. The two-stage process ensures a uniformity of approach for Centrica and optimum use of resources for ensuring compliance.

The UK-ETS has an annual regulatory compliance cycle with defined dates for submission to the regulator of an annual emission report that quantifies emissions for the calendar year. The emission statement has to be subjected to independent verification by an approved external verifier prior to submission. Following completion of verification and the submission to the regulator the final task associated with compliance for the calendar year is surrender of emission allowances to match the actual installation emissions. Centrica was fully compliant across all relevant power station with the above in 2021.

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

Wind

Project identification

FDSPL-Wind Based Power Generation Project

Verified to which standard

CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)

20,120

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

20,120

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Hydro

Project identification

Braço Norte IV Small Hydro Plant

Verified to which standard

CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)
21,995

Number of credits (metric tonnes CO2e): Risk adjusted volume
21,995

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Hydro

Project identification
Kadamane Mini Hydel Scheme-1

Verified to which standard
CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)
22,929

Number of credits (metric tonnes CO2e): Risk adjusted volume
22,929

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Hydro

Project identification
Kadamane Mini Hydel Scheme – 2

Verified to which standard
CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)

24,488

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

24,488

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Wind

Project identification

Cururos Wind Farm Project

Verified to which standard

Gold Standard

Number of credits (metric tonnes CO2e)

2,183

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

2,183

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Wind

Project identification

Geycek

Verified to which standard

Gold Standard

Number of credits (metric tonnes CO2e)

5,000

Number of credits (metric tonnes CO2e): Risk adjusted volume
5,000

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
HFCs

Project identification
Shandong Dongyue

Verified to which standard
CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)
262,110

Number of credits (metric tonnes CO2e): Risk adjusted volume
262,110

Credits cancelled
No

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Wind

Project identification
Killik Wind Power Plant

Verified to which standard
Gold Standard

Number of credits (metric tonnes CO2e)
10,000

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

10,000

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Other, please specify

Cookstoves

Project identification

Promoting Improved Cooking Practices in Nigeria

Verified to which standard

Gold Standard

Number of credits (metric tonnes CO2e)

23,368

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

23,368

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Other, please specify

Cookstoves

Project identification

Promoting Improved Cooking Practices in Nigeria

Verified to which standard

Gold Standard

Number of credits (metric tonnes CO2e)

7,000

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

7,000

Credits cancelled

No

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

Navigate GHG regulations
Stakeholder expectations
Change internal behavior
Stress test investments

GHG Scope

Scope 1

Application

We produce a carbon pricing forecast for the UK ETS to 2040.

Our forecast is informed by the ETS price, policy and third-party forecasts. These projections are primarily used within our business solutions and oil & gas asset businesses for near-term forecasts of business performance and longer-term forecasts which are factored into new capital investment decisions.

The carbon price is also utilised by the UK downstream businesses for near term hedging, where under stable historic market conditions it constitutes approximately 12% of the wholesale power price.

Internal forecasts of carbon prices are integrated in to our short to long term projections of power prices and ancillary market returns. These projections in turn are used to develop our view of the future financial performance of the company and what strategic decisions we need to take, for example where to invest and when.

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

80

Variance of price(s) used

N/A

Type of internal carbon price

Shadow price

Impact & implication

The use of shadow internal carbon prices (ICP) is integrated into the commercial decisions taken in many areas of Centrica's operations. We use them to predict external carbon prices and ensure commercial robustness in the face of a changing external environment. Our ICPs are time sensitive, with higher value deployed for future decisions

Utilising an ICP enables us to better predict the long-term impacts of regulations on our business and communicate this information to interested stakeholders such as politicians and investment analysts, to better understand our business and inform. As an example, in 2021 internal carbon pricing was utilised to determine the price point we bid in energy market auctions for potential future generation asset developments (we decided to commit to building, or declined proposals based on our projected ICP). Another activity which used our ICP was the valuation, and subsequent purchasing decisions, made wrt. future Power Purchase Agreements (a forward contract between generator and off-taker for energy supply) for our future customer demand. Without accurate ICPs, all these projects and products could lose money for Centrica.

We support the use of carbon prices to incentivising decarbonisation, internally and across the economy. We believe that if carbon pricing mechanisms continue over the long term, they will impact attractiveness of investment opportunities providing financial incentives to grow low carbon generation. For example, following a historically volatile carbon price, we forecast an upward trajectory in carbon prices which will impact the viability of high carbon power investments such as coal versus renewable energy. This gives confidence in our strategic direction of focusing on lower carbon generation and the grid flexibility required for higher levels of renewable generation. In this way we use projected carbon pricing to disincentivise capital projects and investments which would have higher emissions.

Beyond this, by modelling expected growth in carbon pricing across the electricity system we can plan to provide services to meet the increasing demand for flexibility created by a decarbonised power network (batteries, DSR, optimisation etc). This shapes our operations and the propositions we offer our customers.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

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

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify

Setting Corporate Standards, inclusive of environmental safeguards that suppliers must adhere to

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

3

Rationale for the coverage of your engagement

We want to use our purchasing power as a force for good which is why we strive to ensure that our supply chain is sustainable. As part of this, it's important to have a strong foundation so we focus on embedding Corporate Responsibility (CR) clauses in supplier contracts and ensuring that suppliers commit to uphold our CR Policy for Suppliers which includes environmental safeguards. This applies to all suppliers wherever they are based in the world or whatever our spend with them is, because it's a core part of our onboarding process and ongoing management activities.

Within both the onboarding of a supplier and the ongoing management we utilise a risk based methodology to establish the inherent risk with both the country and commodity/service that we are procuring, suppliers that we identify as posing a high risk or has been shown to demonstrated inadequate performance are required to develop corrective action plans to improve and embed sustainable behaviours. The information secured forms a scorecard and a corrective action plan. We review the corrective actions and encourage the supplier to upload evidence to demonstrate continuous improvement. In 2021, the average sustainability of those assessed in Ecovadis was 59 (low risk), which remains above the multi-industry average of 51 (medium risk). This is an improvement when compared with our previous average score (54) in 2020.

Impact of engagement, including measures of success

We use our purchasing power to embed high social, ethical and environmental standards across our global supply chain. A key way we measure success is by ensuring that all of our suppliers a) sign-up to our CR clauses in contracts which encompasses environmental safeguards and b) comply with our Procurement and CR Policy for Suppliers which contains the commitment to protect the environment.

In 2021, all suppliers committed to uphold high environmental standards. They either accepted our CR policy and clauses, or we agreed that their policies equalled our own and further alignment was unnecessary. Through these actions, we set out the clear expectation to tackle climate change and protect the environment from the very outset of our relationship, which provides a sound foundation for doing business responsibly and helps reduce risk as well as GHG emissions across our supply chain.

Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

0.2

% total procurement spend (direct and indirect)

18

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

0.5

Rationale for the coverage of your engagement

The key motivator of engagement is to improve the quality of our scope 3 data so that we can better monitor emissions from our supply chain, and ultimately work with them to target reductions. To do this, we have initially focused on our most material suppliers by spend given they are likely to have the largest impact on our emissions and will enable us to make the greatest gains in understanding our emissions and implementing emissions reduction initiatives. For example, our top 60 suppliers in 2021 were responsible for 80% of our total Scope 3 category 1 emissions. During the year, we therefore started to focus our efforts on our top 20 suppliers and have thus far engaged 75% of them and will work extend this to our top 50 in 2022.

Impact of engagement, including measures of success

The measure of success is engaging and obtaining supplier specific scope 3 data from our top 20 suppliers who we believe are our biggest emitters. We have made good progress towards this, which has allowed us to replace estimated spend-based emission data with more accurate supplier specific emission data. We now use a hybrid approach to calculate category 1 emissions, with 17% of our total category 1 emissions comprising of supplier specific data. Where we now use supplier specific data, we have seen a 96% reduction in reported emissions. This project has allowed us to better understand the magnitude of our supply chain emissions and hence formulate a more accurate emission baseline which we can use to set realistic reduction targets in the future. Furthermore, this has given us the opportunity to collaborate with key suppliers and share best practice on how to drive down emissions in these areas.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

With over 90% of our carbon emissions arising from our customers, its vital that we enable all of our customers to manage their energy more sustainably. Core to achieving this is to engage our customers through focused campaigns and wider targeted communications mainly in the UK, North America and Ireland, where the majority of our customers are based. In doing so, we can educate and inform customers in reducing their footprint and cutting costs, while driving sales and achieving our purpose to enable the transition to a lower carbon future.

A good example of engagement is through our support of the sector-led campaign by Smart Energy GB. The campaign uses marketing, events, partnerships and media to encourage customers to adopt smart meters, enabling more people to benefit from greater insight that can be used to reduce energy use. Direct communication with customers through letters and engineer visits, also help drive awareness and installation.

We additionally seek out certifications and partnerships that boost credibility and take-up of energy saving products that can enhance communications across media and sales channels. We were the first UK energy supplier to achieve accreditation from the Carbon Trust for our renewable energy tariff for business customers and we launched a Green Future renewable energy tariff which was developed with Climate care, both of which secured strong press coverage and amplified the offering for customers.

Centrica Business Solutions undertook a Powering Britain report series alongside other consumer insight reports (such as ‘Why wait to pursue net zero?’), to illustrate the economic and environmental benefits distributed energy solutions can have if adopted

by key sectors. Findings were shared via targeted media, events and advertising as well as in proactive customer engagements.

We also ran, and supported campaigns focused on raising awareness about national schemes that reward companies for undertaking carbon reduction activities. These include the Renewable Heat Incentive (RHI) which gives companies a subsidy for each kWh generated by renewable products and Energy Performance Contracts (EPC) that guarantee customers carbon and cost savings.

Impact of engagement, including measures of success

We want to help customers manage their energy more sustainably. Success is measured with the delivery against our People and Planet Plan goal to help customers to reach net zero by 2050, with a 28% reduction by 2030. In 2021 we were on track with this goal delivering an 18% reduction.

This is a direct result of raising awareness and encouraging customers to use lower carbon services and solutions. Specific examples contributing to this include our smart meter campaign, which raised awareness of the savings smart meters create and enabled the installation of over 600k additional devices in 2021, saving over 55,000tCO2e annually. External advertising campaigns demonstrating greater control and comfort with Hive led to additional sales of our Hive smart thermostat which will provide saving around 30,000tCO2e annually.

Meanwhile, Centrica Business Solutions campaigns encouraged large-scale energy users to take up offerings that can help them realise their carbon and cost ambitions. For instance, our Powering Britain report showed that if just 50% of the UK's Industry, Healthcare and Hospitality & Leisure sectors took up distributed energy solutions, they could save ~11% on their carbon footprint. Off the back of this, we engaged new and existing customers on the findings, including the NHS, so that money saved from energy can be redirected towards being more competitive or extending essential public services. We now provide energy solutions to over 3500 NHS properties while 10% of their estate switched to renewable energy. Moreover, following our Distributed Energy Future Trends report which tracks the rising appetite of businesses to amplify social and environmental impact, we enhanced services to kick-start their sustainability journey to turn energy into an opportunity rather than just being a business cost. Through CBS' 'Net Zero pathway service' We provide integrated energy solutions to help you decarbonise, analyse, finance, install, operate and maintain energy. And by the end of 2020, this contributed to Centrica Business Solutions' order book increasing by 5%.

Additional efforts relating to the RHI and other government efficiency schemes has enabled a steady take-up, further feeding the installation of low carbon services and solutions. This can be illustrated with the continued delivery of EPC's in 2021 which reduced in-year emissions by 2,500tCO2e.

C12.1d

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

It's essential that we work in partnership with wider stakeholders across the value chain to develop and deliver new energy services and solutions that help us decarbonise key sectors including power, heat, transport and the gas network. By pooling our expertise and collaborating with partners such as start-ups, established car manufacturers, competitors and local authorities, we can deliver energy solutions that work for our customers and wider society. Our engagement strategy is focused in areas of significant risk or opportunity as we transition to a lower carbon world, and where we feel we have the capabilities and commercial drive to make a significant contribution – from providing new smart home products and developing better homes, to delivering electric vehicle (EV) charging solutions and investing in the development of new energy systems.

Due to our experience and knowledge with EV charger installation, energy usage & optimisation, and fleet management we are able to assess, evaluate and deliver a wide range of initiatives across the EV value chain to maximise EV take-up. We are working with car manufacturers to support their customers and dealership networks on EV readiness, providing a one-stop-shop for charging solutions including the charging infrastructure, energy management, financing, and optimisation. Towards this we have announced partnerships with Ford and Volkswagen to offer a dedicated home charging installation service and EV tariffs, as well partnerships with Lotus to develop a new model for EV ownership that fully integrates future mobility and energy through connected vehicles, connected homes and connected customers. We have additionally formed a partnership with the NCP with the purpose of making inner city charging in public places more convenient, as well as Dundee City Council to deliver a flagship charging hub with partners, that introduces rapid EV changing with on-site storage and renewable generation. The success of all of these initiatives is initially focused on rates of take-up and customer experience, with feedback to be used to help refine offerings.

We are partnering with energy experts to decarbonise the energy system by pioneering new ways to generate, manage and consume energy. We have formed a consortium with some of the largest businesses in the UK's Humber region so that we can be part of the world's first zero-carbon industrial cluster, by developing a carbon capture and storage (CCS) and hydrogen production facility. We believe that CCS and hydrogen must play a significant role in decarbonisation so it's vital for the broad range of skills and experience to come together from partners including Phillips 66, Uniper, VPI Immingham, Drax, Equinor, National Grid, SSE Thermal and others, and deliver this project which has the potential to capture and store 10% of the UK's carbon emissions each year. Success will be measured with carbon emissions saved when fully operational while in the short term, success can be judged with the effectiveness of each key milestone in the build up to the industrial hub being ready by 2040, with proposals to build a demonstration hydrogen production facility by 2025 and install carbon capture equipment on one of the biomass units at Drax's power station by 2027. Funded by the European Regional Development Fund, the University of Exeter and ourselves, we have also been testing how flexible demand, generation and storage can support the grid during peak

times and help stimulate the growth of renewables through the Cornwall Local Energy Market trial. Technologies like solar and battery storage together with a virtual marketplace enabled by blockchain technology has been rolled out to over 200 homes and businesses and we will analyse the findings of the trial to measure its success, which will focus on proving the value of flexibility for SME business and homeowners.

We have partnered with a range of third parties to create lower carbon homes. For example, though our Centrica Innovations fund, we have partnered with start-ups to develop and deliver new offerings which includes investment in Mixergy. Mixergy is a smart hot water system that only heats the amount of water required by adjusting to household routines while storing excess renewable energy from the grid which improves flexibility and reduces energy use from heat losses by up to 40% a year. We have also worked with local authorities to host developer days and regularly engage major manufacturers (OEMs) on shaping lower carbon homes. Success will be measured against our ambition to help customers reduce net emissions by 100% through direct and indirect action by 2050 and towards this in 2020, we were on track having enabled our customers to reduce emissions by 18% in 2020.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Other, please specify

Suppliers are required to accept the Responsible Sourcing Policy in completeness or to provide verification that they have an equivalent or better Policy in place that they are already working against.

Description of this climate related requirement

The Responsible Sourcing Policy and Our Code Documents reference the commitment to "protect the environment and mitigate climate change" and to have a health, safety and environment management system in place that amongst other matters includes "greenhouse gas emissions". Furthermore it states the expectation the suppliers are expected to adopt behaviours that reflect Our Code.

The mechanisms for monitoring compliance are assigned on a case by case basis with third party only for high risk identified suppliers and first party for where alternatives to our policies are proposed.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment
First-party verification
On-site third-party verification

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers
Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

climate-transition-plan-2021.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

To better manage risks and opportunities related to climate change, Centrica actively contributes to the development of public policy by engaging key stakeholders which include government and regulators in the UK, Republic of Ireland, EU, US, Canada and Norway. We ensure our engagements on policy across the business are consistent with our overall approach to climate change and Group strategy by having dedicated policy groups that develop detailed policy positions which are collated and taken to the CEO / executive via a regular, typically monthly, policy and engagement meeting for review and approval. The CEO therefore has ultimate ownership and sets the company's

position on public policy for key issues like climate change which filters out into the business, and ensures we have a consistent and established policy position on climate change across our global geographies. These policy positions are also socialised with the board.

Our key climate change policies are agreed internally through our regular policy and engagement meetings in support of our wider business strategy. Policy positions support the delivery of our net zero targets, for both our own operation and our customers emissions, and are designed to be Paris aligned. Where Centrica wish to join a trade body we evaluate whether any of their stated positions contradict any of the stated climate policies materially in a manner which we believe would hamper decarbonisation efforts. Any contradiction is then evaluated to determine whether we should join, engage, or not become members.

Underpinning all of this is ‘Our Approach to Political Involvement, which supports Our Code, and sets out the parameters for the companies political involvement.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Other, please specify

Energy efficiency

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Energy Company Obligation (ECO) - The Energy Company Obligation (ECO) is a government energy efficiency scheme in Great Britain to help reduce carbon emissions and tackle fuel poverty.
The scheme began in April 2013, and over time it has been amended. The ECO3 scheme closed on 31 March 2022. The latest policy, ECO4 applies to measures completed from 1 April 2022 and will cover a four-year period until 31 March 2026.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization’s position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Energy Efficiency retrofit is essential for NetZero

ECO is the flagship scheme. However, the new ECO4 has been made very complicated. ECO4 and other programmes are heavily targeted at low income/vulnerable/social housing. The 'squeezed middle' need support too to maximise energy and carbon savings.

These programmes, including ECO, should be paid through taxation.

Most financial support for energy efficiency should be directed at fuel poor customers. But there need to be effective incentives for non-fuel poor consumers to upgrade their homes as well, including to make their homes heat pump ready where it makes financial sense.

We have continued to encourage Government that all suppliers should have to play their part, not just the larger ones, and provided evidence that the current small firm exemption and allowance system has led to distortions in the market. We expect this to be partly addressed in 2022 before a buy-out option is introduced in 2024-25. At that point, all energy suppliers will be required to pay their share.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

We believe that ECO should be funded through general taxation.

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Other, please specify

Non-domestic Energy efficiency

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Energy Savings Opportunity Scheme (ESOS) – A scheme to ESOS is a mandatory energy assessment scheme for larger businesses. These companies are required to carry out ESOS assessments every 4 years. These assessments are audits of the energy used by their buildings, industrial processes and transport to identify cost-effective energy saving measures.

BEIS is proposing to strengthen this scheme, to ensure that these are more effective and drive better energy efficiency deployment.

Separately, the government's proposes to introduce a national performance-based policy framework for rating the energy and carbon performance of commercial and industrial buildings above 1,000m² in England and Wales, with annual ratings and mandatory disclosure as the first step. We support this.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

We have engaged with BEIS via the different consultations.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Carbon tax

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Consultation on tightening UK ETS to align with net zero

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Centrica supports carbon pricing – in conjunction with other policies - to ensure that the energy system efficiently decarbonises. However, increased carbon pricing is only effective if there are technically & economically efficient low-carbon alternatives. Otherwise, this just increases costs to consumers.

We have engaged with BEIS predominantly through trade associations, with some bilateral discussions.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

We support the UK government's proposals to reduce the allowances cap to align with net zero. Government should carefully consider whether lowering the threshold for

participation in the UK ETS is worthwhile compared to the level of additional burden for these assets.

The UK government should consider whether the CPF should be merged with the UK ETS – balancing simplicity with appropriate decarbonisation signals. There is no firm commitment to linking with the EU ETS at this time, Centrica believes that this should be considered to ensure a collaborative approach to reducing global emissions.

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Contracts for Difference (CfD), consultation on reforming CfD

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Renewable generation will make up the majority of electricity generation in 10 years time. We support the CfD regime moving to annually and support the CfD regime continuing for offshore wind to deliver the scale of investment needed

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

However, in future consultations, Government must ensure that the CfD does not distort other markets and increasingly renewables should be deployed on a merchant basis, for example through PPAs – policy should enable this alongside the CfD.

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Other, please specify

Hydrogen in Heating

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Government decision on the potential use of hydrogen in homes and workplaces expected in 2026

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

• We agree with the Government that transitioning to low-carbon heat will require a mixture of technologies, dependant on housing stock, technology costs and level of disruption involved.
• Hydrogen could provide decarbonised heat in buildings, either via hydrogen boilers or in a hybrid system with heat pumps. The Government should mandate for hydrogen-ready boilers from 2025 at the latest.
• Government should make regulation changes to enable 20% blending of hydrogen with natural gas in the gas grid, to enable early hydrogen production and reduce gas-related carbon emissions in the near term.
• For non-domestic buildings, Government should reintroduce grant-based support for decarbonised heat to enable low-carbon heat deployment.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Other, please specify

electrification of transport / vehicles

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Various commitments from BEIS and Ofgem
• 2024 - Zero Emission Vehicles (ZEV) mandate
• Invest at least a further £500m to support local authorities to plan and deliver local public charging infrastructure.
• The new £10m Local EV Infrastructure (LEVI) pilot project will be launched in spring 2022.

• Will introduce new legislation in spring 2022 on improving people's experience when using public chargepoints for example:
• A payment method that is not specific to a brand and does not require a payee's mobile or internet signal, available at:
• Newly installed chargepoint sites (above 7.1 kW)
• Retrofitting at existing rapid sites (50 kW and above) The Government will mandate:
• A 99% reliable charging requirement across the rapid network, including the Strategic Road Network (SRN), trunk roads and Motorway Service Areas (MSAs).

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

The Government should swiftly implement the new requirements to ensure that all public charge-points are accessible to all EV drivers and can be paid using contactless payments
Distribution Network Operators (DNOs) should be robustly incentivised to swiftly process EV charger connection applications and deliver a smooth customer journey
The increase in electricity demand in the next decade and on the way to net-zero will mean that the grid would need to be smarter and more flexible. Government and National Grid ESO assume smart charging will become the default, moving the additional EV demand away from peak periods. This will lower systems costs resulting in lower bills for energy customers. We support the ZEV mandate as it should drive up uptake of EVs.

Around 70% of our engineers will need to rely on public charging, be it on-street charging near their homes or rapid chargers on route. They will need access to charging overnight - this should be a minimum of 7kW (charges the battery in 10 hours) and also access to rapid charging 50-100kW, which can deliver around 80% charge (not from a flat battery though) in around 1 hour.

Our fleets need to know the available chargepoints when they can't be fitted at home. To support businesses that rely on operating their vans from home, we are recommending that local authorities produce more kerbside EV chargepoints as opposed to rapid chargers in a hub.

Kerbside charging, whilst needing more units to be positioned, is more robust generally, allow deeper charge rates (to 100%) and there is no downtime. The street furniture is also physically smaller and there is no demand for additional land requirement, which a forecourt would.

We met with representatives from the Office of Zero Emission Vehicles pre publication

of it's EV Infrastructure Strategy. We responded to the Government's consultation on:
• Future of Transport Regulatory Review in November 2021
• Role of Vehicle-to-X Energy Technologies in a Net Zero Energy System
• The consumer experience at public chargepoints

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Other, please specify

Hydrogen Production and storage

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Commitments from BEIS on hydrogen production, hydrogen production business models, future hydrogen storage models and defining low-carbon hydrogen.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Centrica has engaged on this, through bilateral discussions, consultation response and trade association engagement.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Other, please specify

Electricity security of supply

Specify the policy, law, or regulation on which your organization is engaging with policy makers

We have engaged on developments to the Capacity Market (CM), specifically a consultation on improving the Capacity Market for future operation. Centrica supports the Capacity Market to ensure electricity security of supply. Our main ask is to better allow aggregated small customer assets to participate in the CM, which has been improving.

The recent consultation focuses on changes to better ensure the capacity procured is low-carbon where possible. We are supportive, but the main priority is ensuring sufficient capacity at lowest costs to consumers.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Centrica has engaged on this, through bilateral discussions, consultation response and trade association engagement.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Minor exception is with regards to proposals to better enable low-carbon capacity. These require further consideration .

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

Energy UK

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Energy UK is the trade association for the energy industry. It represents over 80 members made up of generators, gas and electricity suppliers as well as other businesses operating in the energy industry.

Energy UK and its members are committed to driving the sustainability agenda forward by reducing the sector's environmental impact. This is reflected in Energy UK's vision for the UK to have, 'a more decarbonised energy supply and one that is secure, diverse and affordable with greater local heat and power'.

The association has a range of initiatives underway to make these ambitions a reality, which will ensure the industry makes a positive contribution to society, economy and the environment.

Centrica is represented on Energy UK's Board and chairs the Future Market Design group, the New Energy and Services & heat committee, alongside the Energy Systems working group. We are also active members of committees and working groups that for example, focus on power generation and environmental policy.

While views held within Energy UK on climate change related issues are predominantly consistent with our own, there are occasional divergences between members, such as over how best to deliver the smart meter roll-out. As leaders in the UK's mandatory smart meter deployment and a firm believer in the value they can create in giving customers greater control and understanding over their energy consumption and costs, we aim to influence and increase awareness of smart meter benefits with members throughout the association.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Heating and Hot Water Industry Council (HHIC)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

HHIC is committed to driving, supporting and promoting the sustained growth of the UK's residential heating and hot water industry. The HHIC informs and advises on these issues to tackle challenges and influence Government on how best to meet the 2020 and 2050 carbon targets.

Membership is made up of heating manufacturers together with new renewable entrants to the market.

We are a proactive member of HHIC, participating in the Low Carbon Technology, Micro CHP, Hybrid and Boiler technical and policy working groups that help inform and shape Council positions.

Through participation on these working groups, we can also contribute to industry responses, standards and consultations from Government and regulators while developing initiatives that support the introduction of innovative renewable and low carbon heating technologies in the UK.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Energy Manager Association (EMA)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

EMA was established to bring cohesion to the energy management profession in order to help the UK meet its energy obligations, which include those relating to carbon reduction.

To accomplish this, the EMA aims to establish a best practice approach to energy management that will improve the standing of the profession and drive it into the heart of British businesses.

The EMA works closely with energy managers across the UK to influence future policy development so that it functions at optimal levels for practitioners. Engagement largely focuses on Government departments such as BEIS and the Department for Environment, Food and Rural Affairs (DEFRA).

Centrica is represented on various advisory boards within the EMA and provides input on carbon reporting, training standards, behaviour change and industry standards.

We have used our involvement in the Association to influence and increase awareness of best practice Energy Performance Contract policy development.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Association for Decentralised Energy (ADE)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

ADE is an advocate of an integrated approach to delivering energy locally, designed around the needs of the user.

As an industry leader, the ADE brings together interested parties from across the sector to develop a sustainable environment for combined heat and power, district heating and cooling technologies as well as demand-side energy services.

Being an advocate for the proliferation of decentralised energy generation, our views are consistent with those of the ADE.

We are a member of ADE and are represented on the board. We work with them to promote decentralised energy services and solutions, sitting on working groups that develop policy positions to support CHP and demand-side response, and aim to create the policy environment to encourage growth in the sector.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Confederation of British Industry (CBI)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

CBI represents large sections of British business. The CBI recognises that climate change is a real threat and is committed to identifying cost effective policies to tackle the risks. They also help identify and support the prospects for growth and wealth creation through the development of the low carbon economy.

We are a full member of the CBI and sit on their Energy and Climate Change working groups as well as the board. We share industry insight and data where appropriate to help inform CBI policy positioning on key issues such as carbon pricing and UK carbon budgets. We played an instrumental role in helping develop the CBI's 2030 Vision and focused on the policy choices relating to UK decarbonisation.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

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

Status

Complete

Attach the document

climate-transition-plan-2021.pdf

Page/Section reference

Full Document

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Our first Climate Transition Plan sets out our plan for achieving our net zero targets, while ensuring a fair and affordable transition for all. We've committed to review our

Plan in full every three years and publish an update as needed. The Plan was supported by the overwhelming majority
of shareholders following the shareholder advisory vote on it at our 2022 AGM.

Publication

In mainstream reports

Status

Complete

Attach the document

Annual Report & Accounts 2021.pdf

Page/Section reference

Pages 3-6, 7, 9, 11, 27-37, 39-42, 44, 48, 53, 56-57, 64, 70, 72, 81, 104, 108, 244 and 244

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Climate change related information is integrated throughout the Annual Report and Accounts 2021 – from a statement of commitment in the Chairman's and Chief Executive introduction at the start of the book, to our carbon performance in the Strategic Report. With the Strategic Report, our climate reporting is focused around our People & Planet Plan and Task Force on Climate-related Financial Disclosures which achieved full compliance with the TCFD recommendations, as well as our wider KPI disclosure that closes the filing.

Publication

In voluntary sustainability report

Status

Complete

Attach the document

people-planet-plan-update-2021.pdf

Page/Section reference

Pages 3 to 5, 10-11, 14, 16-23, 27, 29-31, 33 and 37

Content elements

Governance
Strategy
Emissions figures
Emission targets

Comment

The Update sets out our new People & Planet Plan - a set of 5 Group-wide goals that aim to create a more inclusive and sustainable future that supports communities, our planet and each other. The Plan builds off progress made under our Responsible Business Ambitions and accelerates action through goals such as being a net zero business by 2045 and helping our customers be net zero by 2050 at the latest. We also report how our Plan supports and contributes to the United Nations Sustainable Development Goals.

Publication

In voluntary communications

Status

Complete

Attach the document

data-centre-2021.xlsx

Page/Section reference

'Planet' tab

Content elements

Emissions figures
Emission targets
Other metrics

Comment

The Data Centre contains over 150 metrics and forms part of our wider reporting suite. It enables us to transparently report a fuller picture of our non-financial impact and shows trends over time. The metrics span all of our impact areas – from safety and customer satisfaction to carbon and community investment.

Publication

In voluntary communications

Status

Complete

Attach the document

our-code.pdf

Page/Section reference

Page 30

Content elements

Governance

Comment

Our Code sets out the minimum expectations for how we go about our business and guides us to make good choices. It includes a commitment to safeguard the environment and applies to everyone who works for us, with us or alongside us. Our Code forms the foundation of being a responsible business and represents a high-level summary of the key areas of Centrica's Policies and Standards.

Publication

In voluntary communications

Status

Complete

Attach the document

united-nations-global-compact-2021.pdf

Page/Section reference

Pages [5-7]

Content elements

Strategy
Emissions figures

Comment

As a signatory to the United Nations Global Compact, our annual Communication on Progress sets out how we uphold the universally accepted principles on key issues to create a better world – from protecting human rights and the environment, to ending discrimination and corruption.

Publication

In voluntary communications

Status

Complete

Attach the document

sasb-disclosure-2021.pdf

Page/Section reference

Pages Full document

Content elements

Emissions figures

Comment

While we've used SASB to inform our reporting in previous years, 2021 was the second year that we'd published mapping of our performance to the standards as part of our annual reporting suite. To ensure the document is as meaningful as possible, we've therefore focused our response on areas that are most relevant to our business and in some instances, used our own methodology where this is more applicable.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	As the signatory of Centrica's Health, Safety and Environment policy our Chief Executive Officer has management level responsibility for biodiversity related issues across the organisation. He is also a member of our Board which has oversight of all our environmental matters including those related to biodiversity as appropriate.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, and we do not plan to do so within the next 2 years

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?
Row 1	No, and we do not plan to undertake any biodiversity-related actions

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category

Row 1	CEO	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Jaguar Land Rover Automotive plc

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Vodafone Group

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO2e savings

Estimated payback

Details of proposal

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms