Powering tomorrow the right way

SSE plc Sustainability Report 2023
SSE is a leading generator of renewable electricity in the UK and Ireland and one of the largest electricity network companies in the UK. It is driven by a purpose to provide energy needed today while building a better world for energy tomorrow. It develops, builds, operates, and invests in low-carbon electricity infrastructure in support of the transition to net zero, including onshore and offshore wind, hydro power, flexible thermal generation, electricity transmission and distribution networks, alongside providing energy products and services to customers.

SSE’s ambitions for the development of renewable energy now extend beyond the British Isles to carefully selected international markets, including Asia-Pacific, Europe, and North America.

UK-listed and headquartered in Perth, SSE is a major contributor to the economies in the UK and Ireland. It employs around 12,000 people and is real Living Wage and Fair Tax Mark accredited.

The Sustainability Report for the period 1 April 2022 to 31 March 2023 aims to provide enhanced disclosure of SSE policies, practice, and performance against key economic, social, and environmental impacts and goals. On occasion the report refers to activities of joint ventures and in those instances, it is made clear this is the case.

For and on behalf of the Board of Directors of SSE plc
15 June 2023

Rachel McEwen
Chief Sustainability Officer

Alternative Performance Measures
SSE uses a variety of performance measures. These measures are not all defined under IFRS and are therefore termed ‘non-GAAP’ measures. A reconciliation from these non-GAAP measures to the nearest prepared measure in accordance with IFRS is presented and described on pages 194 to 201 of SSE’s Annual Report 2023. The Alternative Performance Measures SSE uses might not be directly comparable with similarly titled measures used by other companies.
Right action, taken in the right way

Providing energy is a purpose that SSE, and its predecessor organisations, has been fulfilling for 80 years. This year marks the anniversary of the 1943 Hydro Development Act, a pioneering piece of public policy that connected people in the north of Scotland to the electricity grid for the very first time. SSE’s purpose today is to provide the energy needed in the UK, Ireland and, increasingly, elsewhere in the world but now with every tonne of damaging greenhouse emissions removed from the process.

Coupled with the urgent climate imperative, the energy security concerns raised by the Russian invasion of Ukraine makes an overwhelming case for the swiftest, most orderly, and just transition we can possibly achieve. With SSE’s enhanced capital investment programme squarely focused on accelerating renewables, reinforcing networks and providing vital system flexibility, we are delivering the right action, right now.

Our strategy is tackling climate change, providing greater energy security and addressing concerns about affordability. But we are acutely aware that our purpose today is to provide the energy needed in the right way and in the right way, provided that everyone who works deserves to earn an income that prevents them from being in poverty.

Ten years of enhanced social impact
SSE became a real Living Wage employer a decade ago, at a time when it was a fledgling movement. Now, one person in every nine working in the UK is covered by a commitment to the real Living Wage. I like to think SSE has played its part in normalising the notion that everyone who works deserves to earn an income that prevents them from being in poverty.

In recent years, we have focused on the principles of a just, or fair, transition to net zero. Experienced or perceived injustice as the economy undertakes its almighty transition to net zero, will be counterproductive. It will undermine the very case for climate action that so many are working towards. More simply, the case for a just transition supports our climate action.

As with all of SSE’s sustainability disclosures, feedback and further engagement is warmly welcomed. Please get in touch with sustainability@sse.com.

Alistair Phillips-Davies
Chief Executive
16 June 2023
An accelerated investment plan

SSE’s enhanced investment plan, NZAP Plus, is a platform to maximise stakeholder value into the 2030s.

In May 2023, 18 months after its initial launch, SSE’s Net Zero Acceleration Programme (NZAP) was revised to reflect the increased opportunities created as the world pursues net zero. The new ‘NZAP Plus’ includes investment of £14bn over the five years to 2027, compared to £12.5bn over the five years to 2026 through the original NZAP, and features revised growth targets to 2027 for SSE Renewables, SSEN Transmission and SSEN Distribution.

Balanced capital investment in upgraded, fully-funded plan...

£18bn

Renewables ~40%

Energy Networks ~50%

Renewables 40%
Transmission 30%
Distribution 20%

Sharper focus on climate solutions
Supporting SSE’s 2030 Goals with around 90% expected to be invested in renewables and networks, the substantial majority of the NZAP Plus is focused on climate solutions that are aligned to a 1.5°C pathway and also aligned to the Technical Screening Criteria of the EU Taxonomy.

Medium-term targets
... delivering accelerated growth at attractive returns out to 2027...

Renewables

<table>
<thead>
<tr>
<th>Net capacity</th>
<th>&gt;9GW</th>
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</table>

Electricity networks

<table>
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<tr>
<th>Total increase in Regulated Asset Value of SSEN Transmission and Distribution</th>
<th>~14%</th>
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</table>

Long-term targets
... with 2030 Goals aligned to four UN SDGs...

See page 22 for SSE’s progress against these

... enhanced 2032 growth targets in the NZAP Plus...

Renewables 40%
Transmission 30%
Distribution 20%

Net installed renewables capacity

>16GW

Net low-carbon flexible thermal

>2GW

Net networks RAV

>£20bn

Science-based carbon targets aligned to 1.5°C

... and a Net Zero Transition Plan for net zero emissions on scopes 1 and 2 by 2040, and scope 3 by 2050 at the latest.
Strategic introduction

The strategic hierarchy of sustainability within SSE

SSE’s purpose is to provide the energy that people need today whilst ensuring a better world of energy is built for tomorrow. The essential nature of its business activities mean it has a multitude of sustainability impacts. While the breadth and depth of SSE’s economic, social and environmental impact is extensive and complex, a strategic hierarchy of sustainability provides simplicity and clarity.

Ambition for 2030

SSE’s 2030 Goals are four core business goals focused on addressing the challenge of climate change in a just and fair way.

Business goals with societal benefit

Aligned to the UN Sustainable Development Goals (SDGs) most material to SSE’s business activities, the 2030 Goals place sustainability firmly at the heart of SSE’s business strategy. They provide a framework for the Company as it works towards its net zero ambitions, ensuring that as it does, it creates and shares value with its stakeholders along the way.

In 2022, SSE undertook a sustainability materiality assessment, supported by a third-party professional services firm, the results which reinforced the highly material nature of the 2030 Goals and the core issues they are focused on. For more information on the results of the materiality assessment, see pages 8 and 9.

SSE’s 2030 Goals

Cut carbon intensity by 80%

Increase renewable energy output fivefold

Enable low-carbon generation and demand

Champion a fair and just energy transition

Cut carbon intensity by 80%

Increase renewable energy output fivefold

Enable low-carbon generation and demand

Champion a fair and just energy transition

Since 2019, SSE has aligned its business strategy to the UN’s Sustainable Development Goals (SDGs), which provide the framework to guide the creation of shared value. Within this framework SSE has identified four SDGs which are highly material to the business, and to which it has linked its four core 2030 Goals.

Tracking progress against SSE’s 2030 Goals

SSE’s 2030 Goals are focused on addressing the challenge of climate change in a just and fair way. The 2030 Goals are four core business goals focused on creating value for shareholders and society. They provide a framework for the Company as it works towards its net zero ambitions, ensuring that as it does, it creates and shares value with its stakeholders along the way.

Since 2019, SSE has aligned its business strategy to the UN’s Sustainable Development Goals (SDGs), which provide the framework to guide the creation of shared value. Within this framework SSE has identified four SDGs which are highly material to the business, and to which it has linked its four core 2030 Goals.

Accountability for progress

Reinforcing SSE’s commitment to the achievement of its 2030 Goals, they have been used as a framework since 2019 to assess performance, which was linked to the performance-based Annual Incentive Plan for Executive Directors until 2021/22. The updated Directors’ Remuneration Policy, approved by shareholders at the 2022 AGM, has seen performance against these Goals now linked to the longer-term Performance Share Plan, which will vest for the first time in 2025. This is in recognition of the longer-term nature of SSE’s sustainability ambitions. More information on sustainability incentives linked to Executive remuneration can be found on page 92 of this report.
Materiality review 2022/23: defining the issues that matter

The process of defining and confirming the most material social, environmental, and economic matters is the foundation of any business strategy for sustainability.

For the first time, SSE has adopted the ‘double materiality’ approach, a concept which acknowledges that a company should report simultaneously on sustainability matters that are material in influencing business value and material to the environment and society.

This approach is important because it considers SSE’s sustainability impacts from both the perspective of its impacts on the outside world, and the outside world’s impact on SSE, meaning risks and opportunities are viewed as a two-way impact. This is a comprehensive and rich consideration of social and environmental issues.

SSE is mindful that emerging ESG disclosure standards from the ISSB and elsewhere are likely to require evidence of a company’s most material ESG issues – from both the company and stakeholder perspective. Being able to provide evidence of the status of those issues will support stakeholder confidence in SSE’s non-financial disclosures.

The process to confirm materiality
SSE undertook its double materiality assessment with support from an independent professional services firm, with the objective of confirming the ESG issues most material to SSE, both in terms of their impact on the business and the impact of the business on each issue.

The assessment involved a desk-based study and peer review, alongside a series of interviews with internal and external stakeholders, in order to identify the most material ESG issues. In the final stage, a workshop was held with internal stakeholders to validate the prioritisation of the ESG topics and a matrix was produced as a visual aid (see page 9).

What is double materiality?
Traditional materiality assessments often consider how important a particular ESG issue is through one lens. Single lens materiality tends to consider whether an issue is sufficiently important to impact on a company’s enterprise value.

The concept of double materiality goes beyond this financial lens and considers how the company impacts on the issue itself. The combination of both considerations gives a more holistic view of which social, environmental and governance issues should be prioritised.

Materiality is the starting point of any credible sustainability plan. For a power company, sometimes the most material social and environmental issues may seem obvious. But it’s important to stay fresh and alive to emerging issues as they arise. And the only way you can learn that is if you listen deep and hard to your stakeholders.”

Rachel McEwen
Chief Sustainability Officer

For SSE, the double materiality assessment identified 21 ESG issues material to SSE and highlighted five highly material issues for SSE, alongside three areas of opportunity.

SSE’s five most material sustainability topics

1. Carbon emissions
2. Sustainable energy generation
3. Affordable and reliable energy
4. Supply chain management
5. Skilled workforce

These five defined sustainability topics map across to the four UN SDGs long identified as being most material to SSE’s business activities. Carbon emissions align to SDG 13; sustainable energy generation and affordable and reliable energy both align to SDG 7, and SDG 9; and finally, supply chains and skills align to SDG 8.

It is worth noting, in the context of SDG 8, the increasing salience of supply chain management and a skilled workforce.

The impact of this work is partly to provide confidence to the organisation that it is prioritising the correct issues. It also is impactful, in that it provides the evidence from which SSE’s non-financial disclosures (within SSE’s suite of reporting documents) are prioritised.

Opportunities for enhanced sustainable impact
The final output from the dedicated materiality review was to identify, through the stakeholders interviewed, areas where stakeholders believe there was opportunity for SSE to make greater impact.

1. Just transition: Stakeholders recognised the efforts that SSE has made in relation to the just transition but believed SSE could provide continued leadership, potentially creating a cross-industry standard to drive progress and further secure long-term legitimacy.

The scale and complexity of SSE’s business impacts means that there are many sustainability issues it must manage. The results of the entire materiality exercise are represented in the matrix.

The ESG topics are plotted on the matrix by SSE’s impact on the topic against the topic’s impact on SSE. The issues in the top right hand corner represent the topics with both the highest impact on SSE and on which SSE has the highest impact.

Disclosures relating to each issue are integrated throughout this report.

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See pages 86 for information about the Coalition for Wind Industry Circularity, undertaken after the results of the materiality exercise.

3. Nature and biodiversity: SSE can take a leading position in this area and embed nature considerations across its value chain, and prepare for upcoming regulations (e.g., TNFD).

Whilst much more work is required before SSE will be ‘TNF-ready’, this year’s environmental disclosures have been structured following TNFD methodology, and, importantly, the chapter is highlighting the most strategic business issues relating to nature. See pages 78 to 87.

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Emerging trends

The ability to identify and respond to emerging social, economic, and environmental change is an important feature of SSE’s long-term sustainability. While there are ‘mega’ trends that determine SSE’s strategic choices, such as the climate imperative, from year-to-year new features emerge. 2022/23 was no different, with global and national circumstances affecting the external environment SSE operates within.

Return of the energy trilemma

In 2022/23, the triple challenge of simultaneously achieving security of supply, affordability and decarbonisation was brought into sharp focus. Since the term ‘energy trilemma’ was first coined by the World Energy Council in the early 2000s, the focus of political and public attention has swung from one challenge to the next. However, the Russian invasion of Ukraine and the gas supply shortages that resulted in Europe in 2022/23 raise new challenges relating to both security of energy supplies and affordability.

The recent affordability challenge is directly caused by the dependency of Western Europe on imported gas from Russia and the market volatility and energy price spikes that resulted when supplies were restricted. The British Energy Security Strategy in 2022 approached by government authorities to enable temporary generation at its Tarbert site in County Kerry.

SSE welcomed enhanced government action to support consumers with the exceptional costs of energy in the last 12 months but believes the long-term solutions associated with accelerating build out of renewable energy, a step change in energy efficiency measures along with the flexible energy sources to back it up and the network infrastructure to connect and transport it will prevent such energy price extremes in the future.

“Putin’s abhorrent war in Ukraine and rising energy prices across the world are not a reason to go slow on climate change. They are a reason to act faster. Because diversifying our energy supplies by investing in renewables is precisely the way to insure ourselves against the risks of energy dependency.”

UK Prime Minister Rishi Sunak, address to COP27, November 2022

Our warming world

The final instalment of the Intergovernmental Panel on Climate Change’s (IPCC) sixth assessment report provides the most comprehensive scientific assessment of climate change. While the synthesis report was the culmination of eight-years of scientific assessment, it represents the most up-to-date consensus of the consequences of rising greenhouse gas emissions.

The report confirmed that concentrations of the warming gas CO2 in the atmosphere are at their highest in two million years. While climate scientists recognise that global temperatures are getting close to exceeding 1.5°C temperature increase since preindustrial levels, deep and immediate cuts in greenhouse gas emissions will limit warming to a short and temporary overshoot.

With the significant scale of investment required in its network in the north of Scotland, SSEN Transmission engages closely with all communities and stakeholders with an interest in its infrastructure developments. Some stakeholders have raised whether some form of community benefit funding might be an appropriate way to share in the value of these developments in addition to the other economic and employment opportunities they bring. SSEN Transmission will continue to engage with Ogilven and its stakeholders to consider the potential for a legacy fund being created, particularly to support the next phase of its network expansion which is critical to powering change and meeting Scotland and the UK’s renewable energy targets.

“Even in the near term, global warming is more likely than not to reach 1.5°C even under the very low greenhouse gas scenario.”

Intergovernmental Panel on Climate Change (IPCC), March 2023

Nature and people: the interdependencies of net zero

In the UK, the HM Treasury-led Transition Plan Taskforce (TPT) published its Disclosure Framework and Implementation Guidance for company net zero transition plans at COP27 in November 2022. SSE’s early adopter status led to SSE being invited to join the TPT Delivery Group in February 2023.

Within the Disclosure Framework, the importance of interdependences within transition plans is called out as an area for companies to consider in a holistic way. The importance of factoring the role of nature, both as a tool for building resilience to climate changed world, and to mitigate against greenhouse gas emissions is recognised. Equally, the notion of a just transition and managing the social consequences of the net zero transition on workers, consumers, and their communities is emerging as a critical consideration for any transition plan.

While the adoption of just transition principles and nature within net zero transition plans, adds complexity to company plans, SSE believes this is an important trend and will represent the gold standard in the establishment of credible transition plans for companies.

Translation Plan Taskforce Disclosure Framework, November 2022
Identifying material issues

Achieving a decarbonised UK power system by 2035

The International Energy Agency (IEA) global decarbonisation pathway outlines the importance of power generation in developed countries achieving net zero greenhouse gas emissions by 2035. The UK Government has targeted 2035 as the goal for the UK power sector to achieve complete decarbonisation and, in March 2023, a long-awaited report from the UK’s Climate Change Committee (CCC) set out to answer the question: “can we rely on an electricity system based on renewables?”

Using historical weather data and testing against an extreme wind drought of 30 days the CCC concluded that the system will be dependable with 70% renewable generation and point out the importance of low-carbon dispatchable (or flexible backup) plant. They also retain a small amount of unabated gas, calling it a ‘Strategic reserve’ amounting to 2% of total generation. The CCC specifically highlighted that the greatest risk to achieving a decarbonised power sector in the UK is deployment and that processes including planning and consenting need urgent reform to enable infrastructure to be deployed at sufficient speed.

This CCC report confirms a growing understanding that, while national ambition and clear targets for renewables and network infrastructure are very welcome, there are challenges in delivery. SSE is working constructively with planning authorities and others, to work through these barriers, while remaining mindful of the critical need to consult effectively with communities and other stakeholders impacted by infrastructure delivery.

"This is a national mission at scale – build rates for generation and network capacity exceed anything achieved before... [a decarbonised power system by 2035] is credible and achievable, with multiple benefits... but the present system of planning and consenting just isn’t up to it."

Chris Stark, Chief Executive, Climate Change Committee, March 2023

Driving better outcomes together

Collaboration with the wide range of stakeholders who have a direct interest in SSE is essential to facilitate strategic decision-making and to support the achievement of shared sustainability-related objectives.

SSE’s approach to stakeholder engagement

SSE promotes an open and transparent approach to stakeholder engagement which is supported by governance and accountability at both Group and Business Unit level. Through the course of its daily interactions with a broad range of stakeholders, SSE seeks to ensure that their perspectives are built into its business plans and objectives at every stage.

SSE defines six key stakeholder groups: Employees; Shareholders and debt providers; Energy customers; Government and regulators; NGOs, communities and civil society; and, Suppliers, contractors and partners. Full detail on the range of engagement methods SSE adopts to build reciprocal relationships with these stakeholders, along with the issues identified as material to them, can be found on pages 28 to 33 of SSE’s Annual Report 2023.

Partnering for good

SSE’s partnerships form a core part of SSE’s approach to business and ensuring it contributes positively to wider societal issues. They enable it to drive progress by collaborating with leaders and specialists to achieve more than it could alone. SSE works with several longstanding value-based partners which form a core part of SSE’s sustainable culture and help set standards for the way SSE operates.

These include almost decade-long partnerships with the Living Wage Foundation and the Fair Tax Foundation, working to address two issues which SSE believes are at the heart of sharing value with society. SSE’s commitment to these partnerships has only strengthened in recent years, with it becoming a Living Hours accredited employer in March 2021 and transitioning to the Fair Tax Foundation’s new Global Multinational Business Standard in November 2022 (see page 62). SSE is also signed-up to voluntary international frameworks, which ensures it operates to highest standards aimed at ensuring the common good. This includes being a signatory of the UN Global Compact since 2018, aligning to its ten principles for corporate sustainability, and being a founder to the Institute of Business Ethics since 2014, through which it shares best practice on embedding ethical business cultures.

Collaborating for industry-wide progress

Strong partnerships are increasingly important as the change affecting the energy sector continues at pace. The transition to net zero presents many industry-wide challenges, which often require a network of collaborators to solve together. SSE works with several partners that inform its thinking and enable SSE to be part of the discussions around emerging industry challenges and solutions.

For example, SSE is working with the turbine manufacturing companies, to develop joint plans in establishing a greater proportion of wind turbine components that have the ability to be refurbished and remanufactured (see page 86). SSE’s supply chain is an important area for collaboration and SSE has a number of supply chain partnerships, including the Powering Net Zero Pact, created by SSE with 10 key founding partners, which is working to address five key topics to bring about a fair and just transition to net zero, and the Supply Chain Sustainability School, with which SSE has been a principal partner since 2021 and work with to engage with its employees, as well as collaborate closer with its suppliers.

For more detail on the many business partnerships that SSE holds across its Business Units, all of which provide valuable input and contribution, see sse.com/sustainability.

Filling new partnerships

In 2023, SSE formed a new relationship with the Institute for Human Rights and Business (IHRB), the global centre of excellence and expertise on the relationship between business and internationally recognised human rights standards.

Hosting a Wilton Park Dialogue in October 2022, with SSE in attendance, the IHRB has emerged as one of the most important voices on efforts to deliver a just transition for working people and their communities in both the developed and developing world. SSE’s subscription to the IHRB first and foremost, supports its work, but also provides SSE with a platform to learn and benefit from, emerging thinking and best practice on areas which both SSE and the IHRB have identified as key priorities, such as the advancement of rights-based approaches to key sectoral net zero transformations through a just transition.

The IHRB has recognised SSE as one of the world’s first companies to create a just transition strategy and action framework. In May 2023, the IHRB published a podcast in which SSE’s Chief Sustainability Officer discussed SSE’s approach to ensuring a just transition and some of the key lessons learned along the way. The podcast is available at ihrb.org.

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Filling new partnerships

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Hosting a Wilton Park Dialogue in October 2022, with SSE in attendance, the IHRB has emerged as one of the most important voices on efforts to deliver a just transition for working people and their communities in both the developed and developing world. SSE’s subscription to the IHRB first and foremost, supports its work, but also provides SSE with a platform to learn and benefit from, emerging thinking and best practice on areas which both SSE and the IHRB have identified as key priorities, such as the advancement of rights-based approaches to key sectoral net zero transformations through a just transition.

The IHRB has recognised SSE as one of the world’s first companies to create a just transition strategy and action framework. In May 2023, the IHRB published a podcast in which SSE’s Chief Sustainability Officer discussed SSE’s approach to ensuring a just transition and some of the key lessons learned along the way. The podcast is available at ihrb.org.
Enhanced climate action

National and international climate ambitions have established a power sector decarbonisation pathway. SSE’s enhanced capital investment programme ‘NZAP Plus’ accelerates delivery of its net zero ambitions with a practical plan of action in the short and medium term.

In every credible national and international pathway to net zero, decarbonised electricity plays a critical role. Enabling the decarbonisation of key sectors, particularly heat and transport, the importance of swift and effective delivery of renewables, grid infrastructure, and low-carbon flexibility in the next decade is stark. SSE’s integrated business model has an advantage in that it supports whole system thinking, and it is in the business of practical real-world delivery. Its intention is to position its growth ambition to meet the clear requirement from society: a decarbonised power system in the UK, Ireland and beyond, in 2035.

Cut carbon intensity by 80%
Reduce scope 1 carbon intensity by 80% by 2030, compared to 2017/18 levels, to 61gCO₂e/kWh

The scope 1 carbon intensity of electricity generated remained relatively stable, falling by 2% between 2021/22 and 2022/23. Progress was made in renewables growth and in developing lower-carbon flexible thermal generation options. While Keadby 3 Carbon Capture Power Station project has not yet achieved the final stages of the UK Government’s Cluster Sequencing Process, a similar project at Peterhead attracted Tier 2 Status. Keadby 2, which began commercial operations in March 2023, is Europe’s most efficient CCGT. 10-year contracts were secured – subject to planning permission and final investment decision – for two new low-carbon power stations in Ireland fueled by sustainable biofuel.
Enhanced climate action

Performance summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Unit</th>
<th>2022/23</th>
<th>2021/22</th>
<th>2020/21</th>
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<tbody>
<tr>
<td>Assured greenhouse gas inventory</td>
<td>Scope 1 GHG emissions</td>
<td>Million tonnes CO₂e</td>
<td>6.08 (A)</td>
<td>5.75 (A)</td>
<td>7.10 (A)</td>
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<td></td>
<td>Scope 2 GHG emissions</td>
<td>Million tonnes CO₂e</td>
<td>0.44 (A)</td>
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<td></td>
<td>Scope 3 GHG emissions</td>
<td>Million tonnes CO₂e</td>
<td>4.81 (A)</td>
<td>3.69 (A)</td>
<td>3.99 (A)</td>
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<td></td>
<td>Total GHG emissions</td>
<td>Million tonnes CO₂e</td>
<td>11.33 (A)</td>
<td>9.93 (A)</td>
<td>11.03 (A)</td>
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<tr>
<td>Science-based carbon targets</td>
<td>Scope 1 units/million tonnes CO₂e</td>
<td>gCO₂e per kWh</td>
<td>2.54 (A)</td>
<td>2.99 (A)</td>
<td>2.56 (A)</td>
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<td></td>
<td>GHG emissions from gas sold (scope 3 carbon emissions)</td>
<td>Million tonnes CO₂e</td>
<td>2.16 (A)</td>
<td>2.29 (A)</td>
<td>2.35 (A)</td>
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<tr>
<td></td>
<td>Proportion of SSE’s suppliers by spend that have set or committed to set science-based targets through the SBTi</td>
<td>%</td>
<td>52 (A)</td>
<td>48 (A)</td>
<td>29 (A)</td>
</tr>
<tr>
<td>CDP</td>
<td>SSE’s CDP Climate Change Programme Rating</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Climate Adaptation</td>
<td>Weather-related resilience expenditure by SSE’s Distribution £m</td>
<td>£m</td>
<td>32.7 (A)</td>
<td>23.5 (A)</td>
<td>27.8 (A)</td>
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<td></td>
<td>Overhead line replacement and refurbishment £m</td>
<td>£m</td>
<td>23.0 (A)</td>
<td>23.7 (A)</td>
<td>27.7 (A)</td>
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<td></td>
<td>Tree cutting £m</td>
<td>£m</td>
<td>11 (A)</td>
<td>16 (A)</td>
<td>34 (A)</td>
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<tr>
<td></td>
<td>Flood protection £m</td>
<td>£m</td>
<td>16 (A)</td>
<td>16 (A)</td>
<td>34 (A)</td>
</tr>
</tbody>
</table>

Detailed disclosure on the breakdown of SSE’s scope 1, 2, and 3 emissions is available in SSE’s sustainability data tables which can be accessed at sse.com/sustainability.

1 SSE’s supplier target is calculated from a 2019/20 baseline. At 31 March 2023, 34% of SSE’s suppliers (by value) had set their own science-based targets through the SBTi with a further 3% committed to setting ones.
2 2020/21 data may be subject to minor adjustment before final inclusion in the regulatory reporting pack published to Ofgem in July 2023. Some 2021/22 data has been slightly revised after finalisation of data for the July 2022 Ofgem regulatory reporting pack.
(A) This data is subject to external independent limited assurance by PricewaterhouseCoopers LLP (PwC). For the results of that assurance, see PwC’s assurance report and SSE’s GHG and Water Reporting Criteria 2022 (A) on sse.com/sustainability.
(B) This data was subject to external independent limited assurance by PricewaterhouseCoopers LLP (PwC). For the results of that assurance, see PwC’s assurance report in SSE’s Sustainability Report 2022 and SSE’s GHG and Water Reporting Criteria 2022, both available on sse.com/sustainability.

A strategy to mitigate and adapt to climate change

SSE is providing the practical solutions to deliver a decarbonised energy system whilst also reducing carbon emissions arising from its own business activities. SSE’s strategy is aligned to the ambitions set out in the Paris Agreement and an accelerated power sector pathway to net zero consistent with global warming of no more than 1.5°C. SSE also aims to increase the resilience of its business by adapting to the impact of a changed climate.

Targeting net zero
SSE aims to achieve net zero across scope 1 and 2 emissions by 2040 at the latest (subject to security of supply requirements) and for remaining scope 3 emissions by 2050 at the latest. SSE has a series of interim science-based targets that align to a 1.5°C pathway.

Actions to achieve net zero
SSE will, first and foremost, take action to reduce emissions as low as possible and its Net Zero Transition Plan sets out the key actions it is taking to achieve its targets to drive progress towards its net zero ambitions. More information on SSE’s action plan can be found in the Net Zero Transition Report summary table on pages 28 and 29. Only when abatement is maximised will SSE deploy technologies or nature-based solutions that will neutralise any residual emissions.

SSE’s Net Zero Transition Plan was first published in March 2022 and updated in October 2022 in response to shareholder and wider stakeholder feedback. The updated Net Zero Transition Plan outlines SSE’s net zero aligned targets and describes 17 actions to reduce material GHG emissions across scopes 1, 2, and 3.

Developing and promoting transition planning
SSE believes Net Zero Transition Plans play a critical role in outlining company pathways to net zero, supporting both delivery and accountability. SSE believes plans must have integrity and in developing its own plan, it sought to be transparent on the challenges and interdependencies of delivering the actions set out. With this principle in mind, SSE has:

1. Updated its plan to address additional material issues identified by its stakeholders including:
   a. scope 3 investments to recognise SSE’s joint acquisition of Triton Power;
   b. providing further explanations on the role of neutralisation technologies in achieving net zero; and

2. Supported the UK Government’s Transition Plan Taskforce (TPT) working group for preparers and users in the development of the TPT Disclosure Framework and Guidance and in its subsequent sandbox exercise. SSE continues to support the widespread adoption of transition planning and, as a member of the TPT’s Delivery Group, it is supporting the development of sector specific frameworks, and guidance on cross-cutting issues of just transition and climate adaptation.

ENGAGEMENT IN ACTION

An early adopter of net zero transition planning
In advance of any mandatory requirements and prior to the publication of transition plan recommendations and guidance, SSE developed its own transition plan to set out its route to net zero. The transition plan was built on three key principles: targets to set direction; actions to deliver the targets; and integrity with the aim of being open and honest about the pathways to achieve net zero. This has led SSE to gain invaluable experience in the development and publication of transition plans and reports making it an early example in relation to its arrangements for scrutiny and accountability through the annual shareholder vote.

All this work on transition plans has led to SSE being involved in the UK Government’s Transition Plan Taskforce which is tasked with the development of a ‘gold’ standard for private sector climate transition plans. SSE initially was involved in the UK Transition Plan Taskforce Implementation and Guidance Working Group; it then supported the sandbox exercise which tested the Disclosures Framework and Implementation Guidance; and, more recently, it became a member of the TPT Delivery Group, TPT Adaptation and Just Transition Working Groups and the Electric Utility and Power Generators Working Group all of which are developing topic and sector specific guidance on transition plans.

C. adding cross-cutting issues to recognise the key role that climate adaptation and just transition will play in the transition to net zero.

2. Supported the UK Government’s Transition Plan Taskforce (TPT) working group for preparers and users in the development of the TPT Disclosure Framework and Guidance and in its subsequent sandbox exercise. SSE continues to support the widespread adoption of transition planning and, as a member of the TPT’s Delivery Group, it is

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Right action. Right now.
Right action. Right now.
Climate performance in 2022/23

SSE aims to reduce its GHG emissions in line with the power sector 1.5°C pathway and has set interim targets en route to net zero. To track these targets, SSE reviews performance and reports progress annually.

Year on year GHG emissions performance
In the 2022/23 reporting period total GHG emissions were higher in comparison to the previous reporting period (2021/22). SSE’s total GHG emissions (scope 1, 2, and 3) increased by 14%, from 9.9MtCO₂e to 11.3MtCO₂e, between 2021/22 to 2022/23. This was predominantly a result of the acquisition of Triton Power in September 2022; and a rise in output from SSE’s thermal generation plant due to market conditions and the reinstatement of operations following planned and unplanned outages the previous year.

The impact of weather, demand and availability of plant can mean that GHG emission trends vary between reporting periods. This means that over time emissions can go up as well as down but the overall trajectory of SSE’s emissions pathway is in line with its net zero ambitions.

Enhanced climate action

SSE aims to reduce its GHG emissions in line with the power sector 1.5°C pathway and has set interim targets en route to net zero. To track these targets, SSE reviews performance and reports progress annually.

"We need to move beyond the debates on climate ambition and simply get on with the job: delivering a net zero transition plan that removes greenhouse gas emissions from the production of electricity."

Martin Pibworth, Chief Commercial Officer
Enhanced climate action

SSE’s performance against its Net Zero Transition Plan

Progress in the context of the interim science-based targets
At the heart of SSE’s Net Zero Transition Plan is a set of interim emissions targets that are aligned to a 1.5°C pathway. Providing energy, a lifeline service, means that it must also meet the social obligation of supporting the security of energy supply for homes and businesses. That means that medium term targets are particularly important, given that, in the short term, the emissions are influenced by external factors outside of its control. In the medium term, however, targets can be aligned to investment cycles. It is within that context that an annual review of its progress against its key science-based targets is important and is demonstrated in the graphic below. SSE is making reasonable progress against these key, science-based targets and, following the publication of its revised capital investment plan, the NZAP Plus, it continues to be confident that it will meet these targets on time.

**Short term (to 2025)**

**Target**
- **Engage with 50% of suppliers by spend to set a science-based target by 2024.**

**Base year (2017/18)**
- **% change since the base year (2017/18)**
  - **Achieved**
    - 100%: This target has been achieved through SSE’s engagement with CSP supply chain and workshops with suppliers.

**This year’s progress**
- **51% (34% set science-based targets/17% committed to setting science-based targets)**

**Progress towards achievement of target**
- **22%:** This fall is due to a combination of factors, including a 10% increase in renewable generation output alongside a lesser increase in thermal generation output over this period.

**Medium term (2025 - 2035)**

**Target**
- **Reduce the carbon intensity of scope 1 GHG emissions by 80% by 2030 from a 2017/18 baseline.**
- **Reduce absolute scope 1 and 2 GHG emissions by 72.5% by 2030 from a 2017/18 base year.**
- **Reduce absolute GHG emissions from use of products sold by 50% by 2034 from a 2017/18 base year.**

**Base year (2017/18)**
- **% change since the base year (2017/18)**
  - **Achieved**
    - 17% reduction

**This year’s progress**
- **307**
  - 11.07
    - 41% reduction
    - This reduction is largely a result of lower output from thermal power stations and the closure of SSE’s last coal-fired power plant in March 2020.
- **254**
  - 6.52
    - 15% reduction
    - This change reflects lower market demand due to increased market prices.

**Long term (2035 - 2050)**

**Target**
- **Net zero for SSE’s scope 1 and 2 emissions by 2040.**
- **Net zero for all SSE’s remaining scope 3 emissions by 2050.**

**Base year (2017/18)**
- **% change since the base year (2017/18)**
  - **Achieved**
    - 100%: This target has been achieved through SSE’s engagement with CDP supply chain and workshops with suppliers.

**This year’s progress**
- **2.54**
  - **2.16**

* SSE changed the way it accounts for the GHG emissions from its 50% owned Seabank gas-fired power station from 1 October 2021. Prior to this date SSE had operational control of the plant under a Power Purchase Agreement and as such 100% of emissions from the station were accounted for in scope 1 inventory. Following cessation of the agreement on 30 September 2021, 50% of its emissions (aligned with equity ownership) will be accounted for within scope 3.
Enhanced climate action

Directly impacting emission reductions

With electricity generation providing the vast majority of SSE’s direct impact on climate change, SSE is focused on actions to remove GHG emissions from its thermal generation activities. SSE is also responsible for other GHG emissions in other areas of its business and is working hard to reduce the impact of these.

Transitioning electricity generation

SSE’s activities generate GHG emissions, the most significant source of GHG emissions arises from burning fossil fuels (mainly gas with some oil) in power stations to generate electricity. During 2022/23 the focus of SSE’s GHG emission reduction activities was on the development of innovative low-carbon thermal electricity generation projects which can reduce GHG emissions while supporting secure electricity systems. Focus has been on carbon capture and low-carbon hydrogen technologies, as well as sustainable biofuel as a bridge into hydrogen, that will support the delivery of a net zero electricity system.

SSE’s Tarbert site in Ireland is an example of work undertaken to develop lower carbon alternatives. The existing oil-fired power station at the site will close by the end of 2023, in line with environmental requirements. In the very short-term and in response to a direct request from the Irish authorities, SSE will provide temporary and emergency generation support system requirements however, the sustainable solution is to repurpose the site for enduring low-carbon thermal generation solutions. Plans are underway to build a new power station that will initially run on sustainable biofuel and in the future will have the potential to convert to low-carbon hydrogen when the fuel source is available. For further information on Tarbert see page B7.

Alongside the development of low-carbon thermal generation, SSE is also displacing higher carbon generation in the UK with its newly operational gas-fired CCGT at Keadby 2. Keadby 2 is the most efficient plant of its type in Europe, with an efficiency of around 63% and work is already underway to decarbonise it further with the potential to blend hydrogen in the future. Keadby 2 is designed to provide flexibility for the UK electricity system and complements the increased renewable generation available on the grid, as lower carbon alternatives continue to be developed.

Networks for a low-carbon future

Reducing reliance on diesel generation

Alongside the development of low-carbon options for the generation of electricity, SSE is also investing in its networks to reduce associated GHG emissions. In particular, SSE’s Distribution strategy is to reduce reliance on diesel generation across both networks including the Scottish Islands. SSE uses generators to provide critical backup electricity generation during storms and planned maintenance outages. These use carbon intensive heavy fuel oil and are a significant source of SSE’s Distribution emissions. SSE’s Distribution is exploring alternative technologies, reviewing operational methods and potential network configuration to reduce the need for emergency generation for the long term. In the meantime they are trialling biolfoils as a transition fuel - to replace the more carbon intensive heavy fuel oil that is currently used. Generation using biolfoils have been trialled in the northern networks and funding has been received for replacing emergency back up generation plant at Battery Point in the Scottish Islands.

Managing and replacing SF₆

Sulphur hexafluoride (SF₆) gas has been used extensively across the electrical industry due to its insulating and interruption properties, making it possible to reduce equipment size and improve reliability and safety. However, SF₆ is a greenhouse gas that is 23,500 times more harmful to the Earth’s atmosphere than carbon dioxide which if released, stays in the atmosphere for over 3,000 years.

As a result, SSE’s networks and thermal businesses have been adopting specific procedures to manage, monitor and report SF₆ to prevent and reduce SF₆ leakages. In 2020/21, SSE’s SF₆ emissions increased to 424kg from 303kg the previous year in SSE’s Transmission, SSE’s Distribution and SSE Thermal due to equipment failures. These have all been assessed, repaired and actions put in place to mitigate these in the future.

For SSE’s Distribution and Transmission business, SF₆ leakage has an impact on their operations and these businesses have several initiatives to prevent and reduce SF₆ leakages from their networks. SSE’s Distribution’s RIO ED2 Business Plan outlines its SF₆ leakage reduction strategy and over the past year it continued to minimise switchgear SF₆ leakage as well as trialling alternatives. SSE’s Transmission continued its work with suppliers to use alternative SF₆ gases in its network in the north of Scotland. To date, SSE’s Transmission has emerged the best substation design and have begun development using distinct SF₆-free alternative technologies.

Externally, SSE’s Transmission and Distribution are taking active roles in addressing the issue of SF₆ and are part of the Energy Networks Association SF₆ (IG) Strategy group.

Managing electricity losses on the distribution networks

Distribution losses refer to the electricity lost as it travels through SSE’s network, known as technical losses, or through metering and theft, known as non-technical losses. Reducing emissions arising from electricity losses across its networks is a key component of SSE’s Distribution’s RIO ED2 Business Plan. SSE’s Distribution is implementing its strategy to reduce electricity losses across its network by installing assets with known lower loss rates, trailing innovative loss reduction techniques and tackling electricity theft. For further information see SSE’s Distribution’s RIO ED2 Environmental Action Plan document available at www.ssen.co.uk/about-ssen/sustainability.

PARTNERING IN ACTION

Developing low-carbon technologies in thermal generation

SSE Thermal has progressed plans at its existing Abridgheat gas storage site in East Yorkshire to deliver a first-of-a-kind project, bringing together hydrogen production, hydrogen storage and 100% hydrogen-fired power generation on one site by the middle of the 2020s. This project will support the evidence base for wider deployment of flexible hydrogen power.

The concept would see the purchase of renewable sourced power from the national grid through renewable Power Purchase Agreements to produce hydrogen through electrolysis. The hydrogen would comply with the UK Government’s Low Carbon Hydrogen Standard, which sets a threshold for GHG emissions in the production process. The hydrogen will be produced using a 35MW electrolyser then stored in a converted salt cavern before being used in a 300MW hydrogen-fired turbine, exporting flexible green power back to grid at times of need. The project’s potential has also been recognised by the UK Government, which advanced it to the next stage of the Net Zero Hydrogen Fund in March 2023.

Additionally, in partnership with Equinor, SSE’s Thermal is developing cutting edge carbon capture power stations. In December 2022, Keadby 3 became the first power carbon capture and storage project in the UK to secure planning consent. With capacity of up to 900MW, Keadby 3 will use natural gas as a fuel and be fitted with carbon capture technology to remove the carbon dioxide from its emissions. In line with UK Government policy, the station would capture at least 90% of carbon dioxide emissions, with work underway to achieve consistent capture rates over 95%. The new plant would capture up to 1.5Mt CO₂ each year (dependent upon the running regime of the power station).

INNOVATION IN ACTION

SF₆ alternatives research

As part of its Network for Net Zero business plan, SSE’s Transmission continues to move to using alternative gases with a lower carbon footprint than sulphur hexafluoride (SF₆) as an insulating gas. SF₆ is the industry norm for insulation gases within switchgear due to its exceptional insulating properties. That means there is less experience and knowledge associated with the use of new alternative gases which could lead to future challenges from their use on the network. As a result, SSE’s Transmission is undertaking a key research project, called the Condition Assessment of SF₆ Alternatives (CASA), to understand the changes in operating conditions associated with the use of SF₆ alternatives and their potential impact on the network system when rolled out at scale.

The research looks at the condition monitoring requirements of the alternative gases with the aim of gaining key insights into the type and severity of defects associated with these systems. With this information it is hoped that network operators will be able to detect defects earlier and implement planned interventions to manage the network. In addition, the research will help the industry to develop and advance international measurement standards and diagnostic data tools to support the use of these innovative SF₆ alternative solutions.
Enhanced climate action

Managing energy consumption

Between 2021/22 and 2022/23, the energy SSE purchased for use in its assets (offices, depots, thermal power stations, gas storage facilities, and data centres) increased by 5%, from 186.9GWh to 206.9GWh. A large contributor to this trend was a 60% increase in energy consumed in SSE's gas storage facilities compared to 2021/22. This was largely due to increased gas storage activities at SSE's Aldbrough facility to ensure security of supply.

Energy consumed in SSE’s offices, depots and data centres reduced by 5% compared to 2021/22. This was due to the continued investment by SSE in 2022/23 in a range of energy efficiency measures including a programme of LED lighting upgrades to depot sites and it continued its ‘Better Off’ behaviour change campaign.

In 2022/23, SSE purchased 100% of its electricity for use in its directly managed offices from renewable sources, backed by renewable guarantees. In 2022/23, around 52% of the electricity that SSE purchased for its assets (offices, depots, thermal power stations, gas storage facilities, and data centres) was from renewable sources, up from around 39% the previous year.

SSE is a member of the Climate Group’s EP100 initiative to encourage businesses to double energy productivity associated with office and depot buildings by 2030 from a 2011 baseline. From 1 April 2022 onwards, SSE set an annual reduction target of 2.19% against a 2020/21 baseline, to align with its ambition of achieving a net zero non-operational buildings (offices, depots, and data centres) estate by 2035.

Electrifying SSE’s vehicle fleet

In July 2019, SSE joined The Climate Group’s EV100 initiative and committed that by 2030 it will switch 2,500 of its vehicles to electric and install charging points at all sites.

Since the launch of SSE’s new low emission company car scheme in June 2020, the uptake of electric vehicles and low emission vehicles has increased significantly. By the end of 2022/23 over 57% of its car fleet was fully electric, this increases to 75% with the addition of Plug-in Hybrid which are classed as low emission vehicles. In addition, SSE at the time of reporting had another 201 fully electric vehicles and a further 176 Plug-in Hybrids on order.

The success of the car scheme has resulted in a reduction in the average CO2 across SSE’s car fleet from 106gCO2/km when the scheme launched, to just 36gCO2/km at the end of 2022/23.

SSE has also expanded its fully electric van fleet between 2021/22 and 2022/23, increasing it from 41 to 47 with one currently on order. SSE is trialling all low emission and fully electric vans that come to market and will increase volumes when suitable vans become available to match operational requirements.

SSE has also continued to grow its electric vehicle charging infrastructure, increasing installations to 758 in 2022/23, from 519 the previous year. This includes SSE-rapid and two ultra-rapid charge points.

In 2020/21, SSE contributed to the DECC’s 2020 EV Readiness Survey by providing data on van charging infrastructure.

Managing carbon footprint

In terms of energy consumption, SSE has continued to work with its joint ventures on SSE’s GHG inventory, SSE has set an action as part of its Net Zero Transition Plan to align unabated gas power generation owned through Joint Ventures with a net zero pathway. To do this, SSE will work in partnership with its Joint Venture partners to ensure each put in place their own Net Zero Transition Plans.

Working with suppliers on climate solutions

In addition, SSE is also committed to reporting on its GHG emissions associated with its Joint Ventures and to understand the emissions history associated with these investments. As part of this SSE will review its reconciliation policies, including significant tests, that are being used under its Joint Venture agreements and will work with its Joint Venture partners to understand that whilst SSE does report these emissions, both Seabank and Triton Power also report GHG emissions in line with trade and corporate reporting requirements (such as UK ETS).

In September 2022, SSE Thermal expanded its low-carbon ambitions in the UK by acquiring a 50% stake in Triton Power with Equinor. The Triton Power portfolio consists of three strategically-located assets, with the largest being Saltend Power Station in the Humber.

The acquisition not only supports the long-term decarbonisation of the UK’s power system but also contributes to security of supply and grid stability in the shorter term.

Since September, the joint venture comprising SSE Thermal and Equinor has focused on using the portfolio as a platform to develop more low-carbon projects to support the transition to net zero, building on the decarbonisation work already carried out by Triton. Initial steps to decarbonise Saltend Power Station are already underway, targeting partial abatement by 2027 through blending up to 30% low-carbon hydrogen into the plant, with a commitment to work towards 100% abatement.

In line with just transition principles, the joint venture is committed to transitioning the assets for the net zero world through responsible ownership and operation, and in consultation with the local workforce and representatives.

SSE introduced an additional action into its Net Zero Transition Plan to ensure that its gas-fired joint ventures are aligned with a net zero pathway. While the acquisition of Triton Power brought additional emissions onto SSE’s greenhouse gas emissions inventory in the short term, SSE’s 2030 Science-Based Targets remain unchanged. As a result, the acquisition is wholly aligned to SSE’s Net Zero Transition Plan and reflects the Group’s wider ambition to invest in projects with a low-carbon focus.

CASE STUDY

Trailing new electric vehicles and infrastructure across SSE’s operations

To continue to increase the uptake of electric vehicles across SSE, plans are in place in 2023/24 to test, buy and install infrastructure to support the use of low-carbon vehicles across its operations.

In terms of electric vehicle charging infrastructure, SSE’s property team are set to install 126 electric vehicle charge points across its offices, SSE Transmission will install 32 electric vehicle chargers at its substation sites, SSE Distribution will add a further 39 charging points at its depots and SSE Renewables aims to install 14 charging points at its operational sites across Gill and in Ireland in 2023/24.

In addition, SENN Distribution will trial a fully hydrogen 3.5 tonne vehicle as well as electric vans in its operations in the north of Scotland. Furthermore, SSE will trial the first ever 4x4 electric vehicle at its Clyde wind farm in 2023/24. This vehicle which will be manufactured in Scotland has been designed specifically for the utility industry.

Influencing emissions reductions

An important element of SSE’s climate action is to embed policies and processes that support the delivery of actions that are in line with the Paris Agreement and a 1.5°C pathway. SSE does this in several ways including advocating for policy that supports climate action as well as working in partnership with others such as customers and suppliers to implement climate-related solutions.

Partnerships to deliver low-carbon thermal generation

SSE is important to capture the GHG emissions associated with its Joint Venture holdings to be transparent about the investments it holds, and the contribution of these activities to climate change. With Joint Ventures in gas-fired thermal generation, SSE’s scope 3 GHG inventory now includes 1.5MtCO2e emissions from these operations in 2020/21. These GHG emissions contributed to 32% of SSE’s 2022/23 scope 3 GHG inventory and included:

• Seabank gas-fired power station, 50% equity share; and
• Triton Power (which includes Saltend gas-fired power station, Queen’s gas-fired power station and the decommissioned Deeside power station), 50% equity share.

To help to address the impact of Joint Ventures on SSE’s GHG inventory, SSE has set an action as part of its Net Zero Transition Plan to align unabated gas power generation owned through Joint Ventures with a net zero pathway. To do this, SSE will work in partnership with its Joint Venture partners to ensure each put in place their own Net Zero Transition Plans. Work on Net Zero Transition Plans, at both executive and board level, have begun with Marchwood Power Station, Seabank Power Station and Triton Power.

In addition, SSE is also committed to reporting on its GHG emissions associated with its Joint Ventures and to understand the emissions history associated with these investments. As part of this, SSE will review its reconciliation policies, including significant tests, that are being used under its Joint Venture agreements and will work with its Joint Venture partners to understand that whilst SSE does report these emissions, both Seabank and Triton Power also report GHG emissions in line with trade and corporate reporting requirements (such as UK ETS).

PARTNERING IN ACTION

Acquiring 50% of Triton Power

In September 2022, SSE Thermal expanded its low-carbon ambitions in the UK by acquiring a 50% stake in Triton Power with Equinor. The Triton Power portfolio consists of three strategically-located assets, with the largest being Saltend Power Station in the Humber.

SSE has set SBTi-approved targets to engage with 50% of its suppliers by spend to set science-based targets by March 2024. Given that the Company has met the original target it is now tracking closely, the proportion of suppliers that are translating their commitments to science-based targets into hard targets verified by SBTi. As of 31 March 2023, 34% of SSE’s supply chain by spend has verified science-based targets, with a further 17% made the commitment to have verified targets in due course.

Working with suppliers on climate solutions

SSE continues to work with CDP to improve its climate-related supply chain engagement. By requesting information and providing supplier support webinars, 117 suppliers, accounting for over 65% of spend, provided information to SSE through the CDP Supply Chain module in 2020/21. This was the highest number of responses since SSE began its partnership with CDP in 2018. This engagement has been recognised by CDP as it awarded SSE an ‘A’ in its Supplier Engagement Rating Assessment in 2023. Over 11,400 companies were assessed and SSE featured in the top 8%.

1 SSE acquired its equity share of Triton Power on 1 September 2022 and includes 50% of its emissions from that date in its scope 3 inventory. 2 While Marchwood Power Station is a 50% Joint Venture, 100% of the GHG emissions from this power station are captured in the scope 1 inventory as a result of the Power Purchase Agreement that was in place once it was commissioned.
Enhanced climate action

The next phase of SSE’s engagement is to measure the impact of its suppliers and integrate solutions to mitigate and manage these emissions. To do this, SSEN Transmission worked with the Supply Chain Sustainability School and launched a Sustainable Supplier Code which aims to support suppliers to embed climate actions with the aim of reducing GHG emissions and supporting net zero ambition. In addition, SSEN Transmission is undertaking an innovation project with project partners to introduce better designs into its overhead line tower foundations, with the aim of reducing the concrete used and saving around 1.360MtCO2e.

SSE Renewables joined up with nine other energy companies to work with the Carbon Trust to develop methods and guidance to measure carbon emissions associated with offshore wind projects. The aim of the tool is to build a common life cycle analysis methodology that will support the industry to identify carbon intensive practices and reduce the carbon impact of offshore wind projects. It is also working with its power cable supplier, NKT, to source low-carbon power cables for its Dogger Bank C offshore wind farm.

Advocating for climate action

During 2022/23 SSE continued to advocate for accelerated climate action with a focus on increasing deployment of renewable generation and decarbonisation of thermal generation, heat and transport.

SSE Thermal engaged the UK Government on making the case for investment in carbon capture and storage, including in the Humber region and Scotland, and provided input into the design of the heads of terms for dispatchable power for carbon capture and storage technology. SSE also is a member of the UK Government’s hydrogen expert groups on hydrogen transport and storage infrastructure and has been active in informing the needs case assessment for hydrogen policy interventions. SSE also responded to the Irish Government’s hydrogen strategy, supporting the development of a hydrogen transport and storage infrastructure and outlined the need for coordinated and effective incentives for its production, use, transport and storage.

SSE responded to the UK Government’s consultations and discussions on negative emissions technologies.

SSE also engaged with the UK’s Department for Environment and Rural Affairs on matters relating to climate adaptation and resilience planning as well as consultations on the Electricity Networks Strategic Framework and the review of Renewable Electricity Market Arrangements. In Ireland, climate advocacy continued with SSE contributing to Government considerations on the roll-out of offshore wind, with SSE successfully calling for an increase in the 2030 offshore wind target from 5GW to 7GW.

Climate advocacy through trade associations

SSE is a member of several diverse trade associations that align with its business objectives and enable it to work collaboratively across the energy sector on matters of shared interest. SSE works closely and engages with these trade associations on a continuous basis to ensure that their principles on climate change are consistent with those of its own.

SSE’s annual review of the net zero ambitions of its trade association memberships can be found in SSE’s Trade Association Climate Review available at sse.com/sustainability. The report once again confirms that none of the trade associations assessed were identified to have opposing climate-related views. SSE will continue to engage with all trade associations and report its assessment annually.

Taking account of the price of carbon

As a generator of electricity, SSE is subject to policies that impact carbon pricing, which means the price of carbon is an explicit consideration in many investment decisions. During 2022/23, SSE’s generation activities in GB operated under the UK Emissions Trading Scheme (UK ETS) carbon pricing system. SSE’s generation assets in Ireland operate under the EU ETS. The UK ETS and EU ETS are cap-and-trade emission schemes. This involves a ‘cap’ that is set on the total amount of GHGs that can be emitted by sectors and this is reduced over time so that overall total emissions must fall. Within the cap, participants receive free allowances and/or buy emissions allowances at auction or on the secondary market, which they can trade with other participants as needed.

In addition to the UK ETS, in GB SSE’s activities are subject to the Carbon Price Support (CPS) mechanism which sets a price per tonne of carbon emitted and combined with the UK ETS allowance price, makes up the Total Carbon Price paid by electricity generators. The combination of the UK ETS and the CPS sets the carbon price in electricity market in Great Britain, and the EU ETS in the Single Electricity Market (SEM) between Ireland and Northern Ireland.

SSE views that strong carbon pricing in the electricity system has a critical role in meeting the UK’s net zero commitments and delivering a net zero electricity system in the 2030s. SSE continues to promote a robust carbon price with the UK and Irish Governments, along with the European Commission, and continues to support the strengthening of the UK ETS and EU ETS through determining the supply of greenhouse gas emission allowances. Ultimately, SSE believes the progressive tightening of the allowances available is a powerful tool to reduce greenhouse gas emissions in the most economic way possible. SSE will also continue to actively engage with both the UK and EU as they implement the changes to align their ETS with their net zero targets as soon as possible, both bilaterally and through its trade associations.

Adapting to a climate changed world

The increasing severity and regularity of extreme weather events can pose significant disruption to SSE’s operations and it must work to build resilience as it adapts to changing weather patterns and extreme events.

Potential impacts of climate change to SSE’s operations

The physical impacts of climate change have the potential to adversely impact SSE’s operations and interrupt the supply of energy to its customers. Increased severity of extreme weather events, such as storms, floods and heatwaves bring prolonged extreme temperatures, wind or rainfall, which can impact all aspects of SSE’s activities, including renewable generation output, electricity networks infrastructure and customer demand.

Physical impacts of climate change are highlighted as a climate-related risk in SSE’s TCFD opportunity and risk assessment (pages 44 and 45 of SSE’s Annual Report 2022/23) and the information in this section provides additional detail on the controls and mitigating actions it takes to manage these impacts.

For example, over the 2022/23 winter the SSEN Distribution network was affected by two extreme weather events, an ice storm in Shetland in December 2022 and Storm Otta in February 2023. SSEN Distribution has an investment programme for weather-related resilience expenditure covering overhead line replacement and refurbishment, tree cutting and flood protection (see page 24). In 2022/23 SSEN Distribution attended the Energy Innovation Base Camp to discuss the use of Nature Based Solutions as part of flood prevention resilience responses.

SSE has mitigation methods in place, such as monitoring short- and long-term weather patterns, crisis management and business continuity plans and investment programmes to improve infrastructure resilience. It also assesses potential future risks of climate change and considers actions that can be taken to prepare for changes to weather.

Assessing future risks of a changing climate

An important element in SSE’s climate adaptation work is assessing future potential risks from a changing climate. SSE does this in a couple of ways, including through its annual assessment of the potential financial impacts key climate-related opportunities and risks facing the business. Through this process SSE has identified that storm damage and heat are a significant potential risk to its networks businesses. Full details of the assessment can be found in SSE’s Annual Report 2023, pages 42 to 45.

In addition to this, SSE continues to review climate projections using the Met Office UK Climate Projection (UKCP18) tool for the next decade, to understand the potential impact on its key assets and infrastructure from higher temperatures, changing rainfall patterns and more extreme weather events such as floods, droughts and heatwaves. This process supports the UK Government’s assessment of critical infrastructure which takes place every five years. SSE’s electricity networks and generation businesses have published progress reports against the previous assessments which were completed in 2015 and further work is ongoing to reassess the risks and to update mitigation measures where required. SSE Transmission and SSEN Distribution have set out resilience strategies with climate adaptation actions in their respective price control frameworks. In 2023 SSE also responded to the UK Government’s consultation on national adaptation planning framework through its businesses and associated trade associations.
Enhanced climate action

The Net Zero Transition Report in summary

SSE understands that net zero targets are only credible when backed up by a clear plan of action. SSE’s Net Zero Transition Plan was designed to provide this clarity for its stakeholders. It outlines 17 key actions to ensure its net zero ambitions are met.

The key actions focus primarily on addressing SSE’s largest source of GHG emissions from electricity generation, alongside a plan to address remaining GHG emissions, at the same time as recognising the cross cutting issues of social impact and climate resilience. This following summary provides updates on the actions taken, in financial year 2022/23.

<table>
<thead>
<tr>
<th>Scope 1</th>
<th>Actions</th>
<th>Key progress in 2022/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reduce emissions from unabated gas generation</td>
<td>SSE thermal continues to manage its existing unabated generation fleet carefully, ensuring plant availability at times of system need and maximum efficiency. Tarbert, an oil-fired generator in Ireland, will close by the end 2023, in line with environmental requirements. Annual Report – pages 49 to 50, Sustainability Report – page 22</td>
</tr>
<tr>
<td>2.</td>
<td>Develop new low-carbon flexible generation</td>
<td>SSE: advanced various measures to decarbonise its thermal portfolio, including the development of carbon capture and storage technologies, with projects at Peterhead and Keadby as well as hydrogen options at its Aalborg site and elsewhere. Its large scale pumped hydro project at Coire Glas is progressing with £100m committed to advanced site investigation works. Annual Report – pages 103 to 105, Sustainability Report – pages 54 to 55 and page 48</td>
</tr>
<tr>
<td>4.</td>
<td>Build a renewable energy portfolio of 15GW of capacity by 2032</td>
<td>With the NZAP Plus, SSE’s ambition has now increased to build a renewable energy portfolio, including battery storage, of over 15GW of capacity by 2032. Annual Report – pages 101 to 102, Sustainability Report – pages 49 to 50</td>
</tr>
<tr>
<td>5.</td>
<td>Reduce SSEN’s leakage and reliance on SF₆</td>
<td>SSEN: Transmission continued to migrate to SF₆ alternatives in substations, where appropriate, as well as manage SF₆ leakage in the networks. Annual Report – page 54, Sustainability Report – page 23</td>
</tr>
<tr>
<td>6.</td>
<td>Switch vehicle fleet to EV in line with EV100 commitment</td>
<td>SSE: made good progress towards its EV100 commitment with over 57% of its light vehicle fleet now fully electric, with 35% of the total committed fleet already transitioned to EVs. Annual Report – page 24</td>
</tr>
<tr>
<td>7.</td>
<td>Reduce reliance on SSEN’s Scottish Island backup diesel generation</td>
<td>SSEN: Distribution continued to work towards reduced reliance on backup diesel generation. 2022/23 saw a 4% decrease in the volume of fuel combustion from standby stations compared to the previous reporting period mostly due to fewer subsea cable faults. Sustainability Report – page 22</td>
</tr>
<tr>
<td>8.</td>
<td>Explore options for neutralising residual emissions</td>
<td>SSE: thermal engaged on emerging policy to deliver a market for greenhouse gas removals by responding to UK Government consultations on negative emissions. SSEN Distribution secured funding from Ofgem to develop nature-based solutions to help tackle residual emissions and helping to set a precedent for others. Sustainability Report – page 27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 2</th>
<th>Actions</th>
<th>Key progress in 2022/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Reduce electrical losses from SSEN Distribution</td>
<td>SSE: continued to focus on reducing losses on its network and it remains committed to investing in measuring and managing actual losses through its ROC-ELD business plan which sets out its losses strategy for 2023 to 2038. Sustainability Report – page 23</td>
</tr>
<tr>
<td>10.</td>
<td>Deliver a net zero property estate</td>
<td>Energy consumed in SSE’s offices, depots and data centres fell by 5% compared to the previous year, driven by continued investments in energy efficiency measures. SSE purchased 100% of its electricity for use in its facility managed offices from renewable sources, backed by renewable guarantees. Annual Report – page 54, Sustainability Report – page 24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 3</th>
<th>Actions</th>
<th>Key progress in 2022/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Support customers to fuel switch and consume less gas</td>
<td>SSE: Articulated implemented energy efficiency projects that delivered 8.9GWh of energy savings with its domestic customers in 2022/23. Sustainability Report – pages 36 to 38</td>
</tr>
<tr>
<td>12.</td>
<td>Align unabated gas power generation owned through joint ventures with a net zero pathway</td>
<td>SSE: is working closely with its Joint Venture partners to put in place Net Zero Transition Plans for each power station. Sustainability Report – page 25</td>
</tr>
<tr>
<td>14.</td>
<td>Establish a framework for supplier collaboration on net zero action</td>
<td>SSE: continued to engage with its supply chain on climate matters through its partnership with the Supply Chain Sustainability School and its involvement with a carbon working group as part of its Powering Net Zero Pact. Annual Report – page 51, Sustainability Report – pages 46 to 48</td>
</tr>
<tr>
<td>15.</td>
<td>Partner with the CDP supply chain engagement programme</td>
<td>SSE: continued to collaborate with CDP Supply Chain expanding the number of suppliers requested to respond to CDP to 237 and a supplier response rate of 56%. SSE was awarded an ‘A’ in the CDP Supplier Engagement Rating assessment in 2023. Annual Report – page 51, Sustainability Report – page 25</td>
</tr>
</tbody>
</table>

Cross cutting actions

<table>
<thead>
<tr>
<th>Actions</th>
<th>Key progress in 2022/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>Continuous review of adaptation plans at business unit level, whilst participating fully in national adaptation frameworks</td>
</tr>
<tr>
<td>17.</td>
<td>Publish annually, progress against the 20 Principles for a Just Transition, outlined in SSE’s Just Transition Strategy</td>
</tr>
</tbody>
</table>
Providing affordable and clean energy

As SSE supports the transition from a traditional fossil fuel-based energy system towards one that is renewables-led, it must not compromise on system reliability or the affordability of energy for the end consumer.

The extreme volatility experienced in international gas markets over the last 12 months, has reinforced the importance of SSE’s continued investment in homegrown sources of energy. Homes and businesses have been faced with challenging circumstances and SSE has put in place immediate measures of support for its household customers, while also working with government in the medium-term for a secure, clean and affordable future energy system for all consumers.

Increase renewable output fivefold

Build a renewable energy portfolio that generates at least 50TWh of renewable electricity a year by 2030.

SSE’s renewable generation output in 2022/23, while impacted by lower levels of wind resource, increased by 730GWh compared to 2021/22. Having experienced exceptionally still and dry conditions in the prior year, SSE’s renewable generation volumes in 2022/23 rose by 7% but were 13% behind plan due to Seagreen Offshore Wind Farm project delays and another year of unfavourable weather. SSE Renewables made progress with its key flagship projects. First power was achieved at the 1,075MW Seagreen Offshore Wind Farm (49% SSE stake) and progress was made on Dogger Bank Offshore Wind Farm (3,600MW, 40% SSE stake). Onshore, the 443MW Viking Onshore Wind Farm was successful in securing a Contract for Difference (CfD) in July 2022 where construction has progressed well, with the first turbine successfully installed in April 2023.
Providing affordable and clean energy

Performance summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Key performance indicator</th>
<th>Unit</th>
<th>2022/23</th>
<th>2021/22</th>
<th>2020/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy</td>
<td>Total renewable generation output (inc. constrained off Gb wind)</td>
<td>GWh</td>
<td>10,227</td>
<td>9,496</td>
<td>10,042</td>
</tr>
<tr>
<td></td>
<td>Total renewable generation output (exc. constrained off Gb wind)</td>
<td>GWh</td>
<td>9,665</td>
<td>8,799</td>
<td>9,649</td>
</tr>
<tr>
<td></td>
<td>Total renewable generation capacity¹</td>
<td>MW</td>
<td>3,930</td>
<td>3,935</td>
<td>3,897</td>
</tr>
<tr>
<td></td>
<td>Renewable capacity in construction²</td>
<td>GWh</td>
<td>2.6</td>
<td>2.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Supporting customers: universal access</td>
<td>Networks customers on the Priority Services Register</td>
<td>Number</td>
<td>855,416</td>
<td>768,104</td>
<td>770,844</td>
</tr>
<tr>
<td></td>
<td>Customer minutes lost – SHEP/DIEPO</td>
<td>Average per customer</td>
<td>59/46</td>
<td>57/42</td>
<td>57/44</td>
</tr>
<tr>
<td></td>
<td>Customer interruptions – SHEP/DIEPO</td>
<td>Per 100 customers</td>
<td>60/44</td>
<td>56/42</td>
<td>64/48</td>
</tr>
<tr>
<td></td>
<td>Renewable generation output – proportion of SSE’s total output</td>
<td>%</td>
<td>34.5</td>
<td>38.1</td>
<td>34.8</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>Business Energy smart meter operating volumes (gas and electricity)</td>
<td>Number</td>
<td>212,046</td>
<td>195,058</td>
<td>160,970</td>
</tr>
<tr>
<td></td>
<td>Meter Point Administration Numbers (MPANs) supplied with SSE Green 100% renewable energy</td>
<td>Number</td>
<td>251,635</td>
<td>273,292</td>
<td>262,742</td>
</tr>
<tr>
<td></td>
<td>Energy saved as a result of energy efficiency measures targeted to fuel poor households in Ireland³</td>
<td>GWh</td>
<td>8.9</td>
<td>8.7</td>
<td>5.0</td>
</tr>
</tbody>
</table>

¹ Figures include pumped storage and biomass.
² Based on SSE equity stake at 31 March in each financial year.
³ At 31 March in each year, 2022/23 and 2021/22 data includes累了Whooper ADRs, SL and S2 type Smart Meters that are within the scope of the UK Government’s Smart Meters Programme (Profile Class D5 04 for Electric, and 752W/H/Annual consumption for Gas).
⁴ Individual companies may have more than one MPAN as figures are not representative of customer numbers.
⁵ Activity undertaken through the Energy Efficiency Obligation Scheme. Data covers calendar year, with the calendar year representing the greatest coverage of the financial year (1 April and 31 March being used).

Delivering clean, affordable energy

Delivering the clean energy needed for the transition to net zero requires increased and sustainable investment in renewable sources of energy, alongside the transmission network infrastructure which is essential in connecting it to the grid.

Investing in a clean and secure homegrown energy system

With international gas prices rising substantially in 2022/23, the case for continued investment in clean and secure homegrown sources of energy has become even more important. Renewable sources of energy provide some of the most cost-effective solutions to address both the challenges of energy security and energy affordability currently facing the UK, Ireland and beyond.

SSE’s capital and investment expenditure programmes, ZAP PLUS and ZAP PLUS++, enhance SSE’s investment plans to 2027. It supports renewable sources of energy and low-carbon flexible generation, as well as increased investment in transmission network infrastructure which has a crucial role in facilitating the connection of renewables to the electricity system.

Targeting a fivefold increase in renewable generation output

Progress was made in 2022/23 towards SSE’s target to grow renewable electricity generation output fivefold between 2017/18 and 2030/31, with output increasing from 9.5TWh in 2021/22 to 10.27TWh in 2022/23 (inc. pumped storage, biomass and constrained off wind in GB).

In addition to progress made over 2022/23, SSE Renewables reached important milestones in key pipeline projects, including the submission of a consent application to the Scottish Government in December 2022 for the Berwick Bank offshore wind farm. Located in the outer Firth of Forth, Berwick Bank has potential to deliver 41GW of installed capacity, making it one of the largest offshore opportunities in the world, and it could be complete around the end of the decade.

In addition, the 3.6GW OSSA offshore wind farm (40% SSE Renewables stake), one of the largest floating offshore wind projects in the world, was constructed within the pipeline delays and the first of its kind in the UK.

SSE continues to focus on developing a strong pipeline of renewable energy projects to meet its own, as well as national, ambitions. SSE Renewables is targeting an installed capacity (net) of over 9GW of renewable generation, including battery storage by 2027 and has a current pipeline of around 14GW of renewable energy projects think the net zero transition

Sustainable finance for the net zero transition

A new Green Bond to finance renewables

To deliver key infrastructure to support the net zero transition, SSE has pursued a strategy of issuing Green Bonds, when appointed, to fund its investments. To date, the proceeds of SSE’s Green Bonds have been allocated to refinancing eligible projects of onshore wind farms in the UK and Ireland, as well as key transmission network projects which are primarily required to facilitate greater volumes of renewable generation in Scotland and transporting it to centres of demand. These projects are key in supporting SSE’s focus on investing in a clean and secure, homegrown energy system.

In July 2022, SSE issued a €650m seven-year Green Bond, the proceeds of which were allocated to help fund SSE Renewables’ flagship onshore and offshore wind projects which are currently under construction or recently completed. This marks SSE’s fifth Green Bond in six years and reaffirms its status as one of the largest issuers of Green Bonds from the corporate sector. It remains the only UK corporate to offer multiple Green Bonds and this latest issuance brings SSE’s total outstanding Green Bonds to over £2.5bn.

SSE has made a commitment to update investors each year on the allocation of the proceeds and the environmental impact of its Green Bonds. SSE’s Green Bond Reports can be found at sse.com/greenbond.
Providing affordable and clean energy

Serving electricity distribution customers

SSEN Distribution works to ensure that customers have secure and reliable energy today, while also laying the groundwork for a future energy system in which everyone can access the benefits.

Unlocking a just transition for network customers

SSEN Distribution is at the forefront of enabling net zero at a local level, operating the electricity distribution network that will facilitate new forms of heating, battery storage and many more electric vehicles. In March 2023, it published a report which explores how net zero can be delivered fairly for consumers, ensuring people can participate in and benefit from the energy transition.

The report, titled A Fair Energy Future, details the partnerships and innovation projects SSEN Distribution has undertaken to explore and understand the new energy challenges that consumers will face in the next two decades with technology rapidly advancing and high carbon heating and transport being phased out.

In addressing these critical issues, SSEN Distribution has created an action plan for delivering a just transition for energy consumers. To unlock the benefits of net zero for all consumers, the plan covers 10 commitments from SSEN, alongside further recommendations for the energy industry and policy makers, against four key themes:

- Education and Collaborative Action
- Equal Access to Infrastructure and Service
- Supporting Remote and Rural Communities
- Tackling Emerging Vulnerabilities

The full report can be found at ssen.co.uk.

Achieving the gold standard in inclusive service

In January 2023, SSEN Distribution established a new Kitemark assured by BSI, the business improvement company, for its Priority Services Register (PSR) service.

In addressing these critical issues, SSEN Distribution has created an action plan for delivering a just transition for energy consumers. To unlock the benefits of net zero for all consumers, the plan covers 10 commitments from SSEN, alongside further recommendations for the energy industry and policy makers, against four key themes:

- Education and Collaborative Action
- Equal Access to Infrastructure and Service
- Supporting Remote and Rural Communities
- Tackling Emerging Vulnerabilities

The full report can be found at ssen.co.uk.

Achieving the gold standard in inclusive service

In January 2023, SSEN Distribution was announced as one of the first nine organisations to have achieved certification to the Inclusive Service Kitemark. The new Kitemark assured by BSI, the business standards and improvement company, demonstrates the provision of an inclusive and flexible service that benefits all consumers, regardless of their personal circumstances. The standard covers topics including, the identification of customer vulnerability, inclusive design of products and services, and, the adoption of AI and data collection, protection and sharing.

SSEN Distribution aims for industry-leading service which is tailored, inclusive and accessible to customers, and the achievement of the standard is a result of its work to build on its range of existing inclusive service provision. The Inclusive Service Kitemark demonstrates both SSEN Distribution’s ongoing commitment to offering an inclusive service for all and its desire to be held to account too. This is particularly important in supporting customers through the recent cost-of-living crisis which has seen an increasing number of people entering vulnerable circumstances.

Driving greater Priority Services Register awareness

The Priority Services Register (PSR) is a free to join service that helps utility companies to provide adapted services and additional support to individuals in potentially vulnerable situations. Registering with a utility company’s PSR provides customers with vital support during a supply interruption.

Recognising that the circumstances of its customers can change, SSEN Distribution consistently promotes the PSR to its customers, to ensure that its register is comprehensive, accurate and captures all those in need. In support of this objective, in March 2023, a new website thepsr.co.uk was created through a collaborative initiative led by SSEN Distribution and including 10 Distribution Network Operators (DNOs) and Gas Distribution Network Operators. This website brings together individual registers across these service providers, making it easier to raise awareness of the additional support available nationwide.

This initiative was created based on feedback from partners and stakeholders and follows on from a partnership, PSR Scotland, which launched in Scotland in March 2021. This cross-border collaboration included partners such as local and national charities and NHS Trusts to promote the PSR to their customer base through a clear process.

Building trust in the domestic flexibility market

In August 2022, the Household or Microbusiness Energy Flexibility (HOMEflex) project was launched, which seeks to develop the tools to build trust in the domestic flexibility market and support consumers’ engagement. The HOMEflex project is being led by SSEN Distribution, alongside project partners Centre for Sustainable Energy and Flex Assure, and was established by the Association for Decentralised Energy.

Flexibility is the ability to shift the timing and location of the consumption and generation of electricity, to allow DNOs like SSEN to balance supply and demand and to manage constraints on the network cost effectively. Flexibility trading markets with commercial and industrial partners are already operational, but the scope for domestic consumers and microbusinesses to engage in these markets is limited. The HOMEflex project will work to build the trust that consumers need to engage with the market.

HOMEflex will ensure the domestic flexibility market is inclusive, fair and transparent, with clear lines of accountability to ensure participants abide by their commitments and to guarantee customers are protected and rewarded.

The project will include developing a Code of Conduct for domestic flexibility services, a voluntary compliance scheme and a mechanism for customer complaints, and a recommended trust mark for flexibility services to be signed up to the Code and redress schemes.

Projects, such as HOMEflex, are essential in building trust in flexibility markets and ensuring the benefits of the transition to smart grids are shared widely, with all consumers having equal opportunity to take part in future local energy markets.

An electric heat pathway

In 2022, SSEN Distribution and Grid Edge Policy published ‘An electric heat pathway: looking beyond heat pumps’. The report examines the opportunities presented by the use of storage heating as a viable alternative to heat pumps, and the changing role network operators may need to play to provide flexibility services to ensure value when adopting this type of technology.

The report determined that storage heating with smarter controls could offer a suitable solution for many properties where heat pumps are unsuitable due to space, higher upfront costs and home efficiency (heat pumps are less efficient in poorly insulated homes). It also noted that properties with storage heaters are overwhelmingly inhabited by more vulnerable households on lower incomes who can be pushed into fuel poverty by the higher running costs of existing legacy electric heating systems.

The report therefore recommended a clear vision for these households and the housing stock should be a priority to ensure a fair transition to net zero.

The learnings from this project are being used to build future projects to understand the specific impacts of flexible heating demand and build safeguards for vulnerable customers when alternative technologies are being considered.

Expanding trials to aid low-carbon infrastructure planning

SSEN Distribution is expanding its trial of the innovative Regional Energy System Optimisation Planning (RESP) tool, which seeks to help local councils to make better-informed decisions about the location of low-carbon infrastructure. Having partnered with Dundee City Council in July 2020 for the RESP tool, SSEN Distribution announced in August 2022 that it was expanding the project by trialing RESP with Oxford City Council and Oxfordshire County Council via the County Council’s spatial mapping work in Project LEO (see page 51 for more information).

RESP draws together data from multiple sources into a single database and incorporates social demographics and network data, ensuring that different challenges in differing geographies are accurately mapped, and provides council planners with whole system insights. This can then be used to roll out low-carbon technologies such as charging points. The aim is that RESP will support local authorities to plan future heat projects and other clean technologies with a clearer understanding of specific smart energy capabilities in their communities.
Providing affordable and clean energy

Low-carbon solutions for energy customers

Focused on supporting customers on their journey to net zero, SSE’s energy customer businesses provide energy efficiency services, modernised systems and are expanding their low-carbon energy solutions offerings.

SSE’s competitive customer businesses

<table>
<thead>
<tr>
<th>Business</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSE Business Energy</td>
<td>Provides a shopfront and route to market for SSE’s low-carbon energy solutions and green products to non-domestic customers across GB, and has around 430,000 customer accounts.</td>
</tr>
<tr>
<td>SSE Airtricity</td>
<td>Ireland’s leading supplier of renewable electricity and related energy services, supplying around 740,000 homes and businesses across the island of Ireland.</td>
</tr>
<tr>
<td>SSE Distributed Energy</td>
<td>Provides integrated energy-related services to industrial and commercial customers, with a focus on distributed energy with around 11,400 heat network customer accounts.</td>
</tr>
</tbody>
</table>

PARTNERING IN ACTION

Diverting excess renewable energy to those in need

Fuel poverty impacts thousands of Irish families every day and in 2020, according to figures from Government, 1,448 GWh of zero carbon energy from wind generation alone was constrained. This means the transmission system operator has requested a renewable generator to produce less electricity than it could have otherwise, or even to stop generating completely.

EnergyCloud is an innovative not-for-profit organisation which helps divert surplus renewable energy, which would otherwise be wasted, to homes, with a focus on those in fuel poverty. In 2022/23, SSE Airtricity donated €2.5m to EnergyCloud which will enable up to 10,000 households experiencing fuel poverty nationwide to have their homes fitted with smart technology that uses surplus renewable energy to heat tanks of water for free.

Helping business customers save energy

In 2022/23, SSE Airtricity continued to support businesses to implement energy conservation measures, delivering 30.4GWh of energy savings, bringing the cumulative total of business energy savings supported since 2014 to over 580GWh. SSE Airtricity also directly offers energy audits to business customers, delivered by a registered energy auditor they provide businesses with a clear understanding of their significant energy users and a register of opportunities for energy conservation measures, including indicative payback periods and information on relevant grant supports available to them to help implement the measures.

Customers benefiting from Price promise

**60,000**

SSE Airtricity has committed to deliver home energy upgrades for up to 600 vulnerable households.

**£2.8m**

SSE Airtricity’s donation to EnergyCloud will divert surplus energy to up to 10,000 fuel poor homes.

Donations to charitable partners to support households

<table>
<thead>
<tr>
<th>Charitable Group</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Vincent de Paul (SVP)</td>
<td>£1.6m</td>
</tr>
<tr>
<td>Unicef Ireland</td>
<td>£2.5m</td>
</tr>
</tbody>
</table>

Energy efficiency measures: to help tackle one of the root causes of fuel poverty, SSE Airtricity supported vulnerable households with energy efficiency. This has included a commitment to deliver home energy upgrades for up to 600 vulnerable households through its affordability fund, at no cost, and a £2.5m donation to not-for-profit organisation EnergyCloud, which will help divert surplus renewable energy to up to 10,000 fuel poor homes (see case study on this page).

**Working with partners to support households:** over 2022/23, SSE Airtricity made donations to trusted charity partners to support households in need of financial assistance across the island of Ireland, regardless of who their supplier is. This included a £1m donation to St Vincent de Paul (SVP) and donations totalling £2.5m to Byron Charitable Group.

**Energy Bill Relief Scheme:** SSE Airtricity also applied discounts to the value of £116m in the year to customers in Northern Ireland under the UK Government’s Energy Bill Relief Scheme.

**External recognition of best practice customer support:** In April 2023, SSE Airtricity was announced as the winner of The Social Responsibility Project Award, at the annual Business & Finance ESG Awards 2023. The award, sponsored by Unicef Ireland, was in recognition of SSE Airtricity’s significant efforts over 2022/23 to tackle the energy crisis and support vulnerable customers, including its establishment of the most comprehensive customer support fund of any supplier in Ireland.

**Partnering to deliver cleaner energy:** SSE Airtricity is proud to hold a 50% ownership share in Actib8 Solar Energies, Ireland’s longest established solar installation provider. Over 2022/23, Actib8 carried out over 1,500 domestic solar installations, with growth ambitions to deliver up to 40,000 installations over the next 10 years. This activity is supporting local employment, with the creation of 200 highly skilled jobs over the next two years announced by Actib8 in 2022, supporting a just transition towards net zero.
SSE Business Energy

Helping business customers go green

SSE Business Energy helps business customers of all sizes across Great Britain to reduce their carbon emissions through their green electricity offering. All SSE Business Energy green electricity is backed by Renewable Energy Guarantees of Origin (REGOs) and is independently verified. While in the past, SSE encouraged its business customers to choose a green tariff, in 2022/23, all of SSE’s fixed power quotes are now provided as 100% green. That means a green power supplier for business energy customers is, as standard, from renewable energy.

SSE Business Energy has continued to support businesses through the UK Government’s Smart Programme, installing smart meters at a rate that exceeded its market share of the non-domestic market for 2022/23. Smart meters are crucial in the delivery of flexible products, like time-of-use tariff for EVs, to empower and support businesses toward net zero and it continues to work to encourage its customers to choose to install smart meters.

SSE Business Energy’s focus remains on driving smart adoption throughout 2023/24, building on its engaging smart propositions and incentives to encourage adoption and helping customers to manage and reduce demand. In 2022/23, it launched a suite of new and enhanced digital offerings to improve the customer journey, including a small business sustainability content hub providing help to customers with net zero guidance, and a free and easy-to-use carbon footprint calculator.

SSE Distributed Energy

A focus on heat networks

Heat networks are a core feature of the UK Government’s Heat and Buildings Strategy, although they currently only meet around 2% of the UK’s heat demand. It is estimated by the Climate Change Committee (CCC) that around 18% of UK heat will need to come from heat networks by 2050, if the UK is to meet its net zero carbon targets in a cost-effective way.

SSE Heat Networks has over ten years of experience in heat and cooling, with 18 networks across the UK. SSE believes that heat networks have an important role to play in achieving net zero with important efficiencies and carbon savings in comparison to gas heating.

In support of a maturing heat network sector, SSE was a founding member of the Heat Trust (the independent heat customer protection scheme) and the Heat Networks Industry Council (HNIC). HNIC is a group of heat network operators who are working closely with the government to create a policy framework that will unlock heat networks potential to deliver about 20% of the UK’s zero carbon heat by 2050. As part of this work, HNIC members have committed to decarbonise their existing networks by 2035.

Decarbonising home heat networks at scale

In April 2023, SSE Distributed Energy announced it had entered an agreement with Berkeley Homes that will help to decarbonise a heat network for up to 5,000 homes in London, thought to be one of the largest retrofits of its kind in the country. An Air Source Heat Pump system will connect directly to the existing district heating network pipes, reducing the carbon content of the heat provided by the network. The system will be installed in nearby Wellington Park, where a new landscape will be created through a unique planting scheme that broadens the biodiversity of the area by responding to the microclimate.

The work, which will get underway in 2025, is a significant milestone in the evolution of SSE’s heat networks portfolio and paves the way for decarbonisation work across the remainder of SSE’s expanding UK heat networks.

Expanding district heating and electricity scheme

In 2021, SSE Distributed Energy announced the development of a new £250m district heating and electricity scheme in Aire Valley, Leeds, which is home to around 400 businesses employing around 15,000 people, mainly in manufacturing, wholesale and distribution. The energy network is planned to be served by enfiunum’s new Skelton Grange energy-from-waste facility which is currently under construction and scheduled for completion in 2025. SSE Distributed Energy is exploring potential opportunities to capture waste heat from the enamium facility and distribute it via insulated pipes under the ground to local businesses. Some local businesses may also benefit by being supplied with lower-cost electricity directly from the energy-from-waste facility.

Scaling up solar and battery

Over 2022/23 SSE announced significant milestones in its solar and battery storage business which now has a 1.2GW solar and battery pipeline secured, and a further 1.3GW in prospective sites under development.

Battery: SSE Distributed Energy broke ground in September 2022 at its first 50MW battery storage project at Salisbury, which is expected will become operational in September 2023. In addition, construction of a new 150MW battery storage project at Fernbridge in Yorkshire is also getting under way with the assets expected to be fully operational in late 2024.

Solar: construction began in summer 2023 at SSE’s 30MW solar farm at Littletone in Worcestershire. In January 2023, SSE Distributed Energy announced the acquisition of the rights to three solar sites in Nottinghamshire from Gridmove Ltd.

In April 2023, the standalone Solar and Battery business, that had previously reported alongside SSE Distributed Energy, was integrated into SSE Renewables. Transferring the business to SSE Renewables allows it to scale up and develop opportunities both domestically and internationally, as well as maximising the potential of co-locating projects.

Ultra rapid charging for Glasgow

In October 2022, SSE Distributed Energy opened its first ultra-rapid EV charging hub as part of a major new initiative to deliver 300 such hubs across the UK and Ireland within the next five years. Located on Glasgow’s Castlereagh Street, the six-way EV charging hub is powered by traceable, renewable energy.

It is estimated that at least 60,000 charges could take place at the hub each year, which aims to accommodate domestic vehicles, light commercial vehicles, mixed fleet drivers and taxis. The hub features ultra-rapid charging facilities from 150kW that can put drivers back on the road within 20 to 40 minutes of plugging in.

Decarbonising the maritime sector starts on dry land

UK domestic maritime vessels contribute significant amounts of GHG emissions every year, and decarbonising the maritime sector will play an important role in supporting the UK meet its net zero targets.

In September 2022, Green Corridor Short Shunts – a consortium of Port of Dover, University of Kent, SSE Distributed Energy and several others – won funding from the Department of Transport to create a zero-carbon trade route between Dover and Calais/Dunkirk. Port of Dover is the perfect candidate to lead the UK’s efforts on port decarbonisation as it forms a crucial link in Britain’s supply chain, with more than two million heavy goods vehicles passing through the port each year.

A green port does not simply mean swapping out vessels run on fossil fuels, for electric or hydrogen-powered ones – it involves low-carbon infrastructure across the entire port. This could be energy-optimised smart warehouses to process freight, private wire grids, supplying the port with energy from local renewable sources, and use of electric vehicles and cranes. Key partners in the consortium have begun the task of identifying the energy infrastructure that will be needed at the Port of Dover.
Investing in industry, innovation and infrastructure

The scale of infrastructure development required for net zero will rely on innovation and new technologies, and brings with it a responsibility to manage social and environmental impacts carefully as large capital projects are planned, designed, constructed and operated.

The increasing demand for low-carbon infrastructure to support clean and secure national energy systems is accelerating the speed at which the transition is taking place, making it more important than ever that investment decisions are considered, ensuring they deliver value for society and other stakeholders. To meet the net zero challenge, innovative will be key and SSE’s focus is to demonstrate real world applications and accelerated readiness of new technologies in support of the energy transition.

Enable low-carbon generation and demand
Enable at least 20GW of renewable generation and facilitate around 2 million EVs and 1 million heat pumps on SSEN’s electricity networks by 2030.

SSEN Transmission connected around 1.4GW of additional renewable generation capacity to its network in 2022/23, while SSEN Distribution progressed with partnership trials to support a fair and inclusive transition to smart grids.

At the end of 2022/23, there was just over 9.2GW of renewable capacity connected to SSEN Transmission’s network, up from 7.8GW the previous year. In the same period, SSEN Distribution had around 208,500 pure electric vehicles or plug-in hybrid vehicles registered in its licence areas and had connected around 52,500 heat pumps to its networks. SSEN Distribution continued to progress several key innovation projects with partners to support flexible markets and future infrastructure provision for the mass adoption of electric vehicles (EVs).
Investing in industry, innovation and infrastructure

Performance summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Key performance indicator</th>
<th>Unit</th>
<th>2022/23</th>
<th>2021/22</th>
<th>2020/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling the connection of low-carbon technologies</td>
<td>Cumulative total of renewable generation capacity connected to SSEN Transmission’s network</td>
<td>GW</td>
<td>9.2</td>
<td>7.8</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Pure electric or plug-in hybrid vehicles registered in SSEN Distribution’s service areas</td>
<td>Number</td>
<td>c. 208,500</td>
<td>c. 131,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heat pumps connected to SSEN Distribution’s network</td>
<td>Number</td>
<td>c. 52,500</td>
<td>c. 46,000</td>
<td>-</td>
</tr>
<tr>
<td>SSEN Distribution’s supply points with communicable and smart capability*</td>
<td>Number (% of reported customer numbers)</td>
<td>1,845,807 (50)</td>
<td>1,425,834</td>
<td>902,703</td>
<td></td>
</tr>
</tbody>
</table>

Investing in critical low-carbon infrastructure

| Investment and capital expenditure (adjusted): | | | |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| SSEN, Transmission                            | £m                                           | 495.5                                         |
| SSEN Distribution                             | £m                                           | 412.0                                         |
| SSEN Renewables                               | £m                                           | 837.5                                         |
| Thermal generation and gas storage            | £m                                           | 153.7                                         |
| Promote development                           | Total procurement expenditure 1               | £m                                           |
|                                               | c. 3.7                                       | c. 4.2                                       |
|                                               | Average time taken to pay suppliers          | Days                                         |
|                                               | 28                                           | 28                                           |
| Supporting research and innovation           | Employees working in research and innovation rates (full-time equivalent) | Headcount | 91 | 57 | 46.5 |

1 Calculated using the number of smart meters connected to SSEN Distribution’s network which are communicable by SSEN as a proportion of SSEN Distribution’s reported customer numbers.
2 Includes procurement expenditure related to SSEN’s equity share in joint venture projects.
* Excludes 25% minority interest from December 2022.

Disciplined investment in the net zero transition

SSE’s enhanced strategic plans must deliver a return on investment while addressing energy affordability and finding a balance between cost efficiency and a sustainable supply chain.

Accelerating investment plans to deliver net zero

With countries around the world seeking to secure national energy supplies, the demand for low-carbon energy investment has increased significantly and SSE has responded with accelerated ambition.

In May 2023, 18 months after its initial launch, SSE’s Net Zero Acceleration Programme (NZAP) was revised to reflect the increased opportunities created as the world pursues net zero.

The new NZAP Plus includes investment of £18bn between now and 2026/27, compared to £12.5bn over the five years to 2025/26 through the original NZAP.

The added investment means SSE’s total capital expenditure equates to more than £10m a day spent on critical national infrastructure.

Embedding sustainability criteria into large capital projects

The investment ambitions set out in the NZAP Plus provide an opportunity to create enhanced value for both shareholders and society. To ensure this is the case, SSE must build sustainability considerations into large capital projects at all stages of development, so that social and environmental value is enhanced.

In April 2022, SSE implemented its Sustainability Assessment and Action Plan (SAAP) which must be undertaken for all large capital projects (defined as those with a value over £10m for SSEN Distribution and £20m for all other SSE businesses). The SAAP is a core element of SSE’s Large Capital Projects governance framework, requiring every project development team to assess the impact of the projects across a range of core sustainability-related issues including embodied carbon, human rights risk and local economic impact.

Over 2022/23, project teams have been supported to run sustainability workshops to identify the most material social and environmental impacts a development project may have. Feedback was received around resource usability, team capability, and project feasibility, and over 2022/23 the SAAP was updated to incorporate learnings. This led to the development of the SAAP 2.0 which will launch in Q1 2023/24 alongside an engagement and training plan for the project teams. Furthermore, to further elevate the strategic importance of sustainability in LCP decision making, core project documentation for key stages of a development project will be updated in 2023/24 to ensure the most material sustainability impacts are clearly identified prior to a project progressing to the next stage of development.

Gregor Alexander
Finance Director

“From the hydroelectric power stations in the highlands of Scotland to offshore wind farms in the North Sea, SSE’s assets are built to last. SSE is a long term business and our ‘NZAP Plus’ is a sustainable investment plan that will provide clean power for generations to come.”
**Investing in industry, innovation and infrastructure**

**A central role for innovation**

Core to SSE’s approach to innovation is to work in collaboration with external partners to share knowledge and accelerate the readiness of people and technologies to support the energy transition.

**SSE’s approach to innovation**

The transition to net-zero will require the transformation across the energy system, and SSE’s focus is on enabling, harnessing and deploying new technologies and innovations which can accelerate this journey.

SSE’s approach to innovation does not rely solely on internal knowledge and resources but recognises that external partnerships and collaboration are essential to achieve its innovation objectives. This approach provides a framework for SSE businesses to achieve their innovation priorities. It identifies the four partnership groups key to innovation (academia, SMEs, energy industry peers and supply chain) and establishes four enabling pillars. Partnering for Innovation; Innovation by deployment; Digitalisation; and Talent. More information on each of these pillars is available on page 45.

The approach supports SSE to achieve four core objectives:

1. Creating new markets and increasing revenue: developing credible business cases to harness new technologies to meet net-zero.
2. Increasing efficiency and performance: accelerating readiness of technologies, harnessing external expertise and building capability to develop and leverage digitalisation.
3. Minimising risk: sharing knowledge and best practice to deliver net-zero solutions which are supported by government and regulators.
4. Building future capabilities: creating an innovative culture with diverse perspectives, experiences and skills and align talent recruitment with future capability.

In 2022/23, SSE employed 81 full-time equivalent roles, up from 57 in 2021/22, and invested £10.8m in research and innovation projects, compared to £12.0m the year before. This investment can often be in multi-year, multi-stakeholder projects, with values that far exceed SSE’s funding contribution.

£10.8m

**Direct investment in research and innovation projects in 2022/23**

**A Group approach to driving innovation**

SSE’s strategic approach to innovation is centred on its Academic Partnership and Partnership Funding teams which co-ordinate cross-cutting innovation and growth ideas.

SSE’s Academic Partnerships team facilitates SSE’s structured strategic relationship with two leading UK Universities, Imperial College London and the University of Strathclyde. SSE further partners in one of Ireland’s leading all-stand energy research programmes ‘NexSys’ hosted by University College Dublin. The objective is for knowledge transfer between academia and industry with teams in SSE gaining knowledge through collaborative and directly engaged research, conferences, webinars and roundtables. The reverse is also true: academic researchers, through the relationship have the ability to mine real-world problems with access to our SSE, data and operational insights.

SSE’s Partnership Funding team supports the Business Units to access incentive programmes, building effective consortia that compete for grant awards to trial and prove new technologies and market models. This enables SSE not only to be aligned with government policy by understanding government innovation direction, but also to maintain a leadership position in stimulating and facilitating innovation that can yield significant performance and sustainability gains.

**Empowering Business Unit innovation**

Each of SSE’s Business Units is empowered to set their own innovation priorities, supported by the framework of the Group approach to innovation. A culture of innovation is promoted through a dedicated innovation team within SSE’s and two Engineering Centres of Excellence. The Networks Innovation team provide expertise to leverage regulatory funding for innovation and their focus is on accelerating a low-carbon transition and co-creation with partners to develop whole-system solutions. The Engineering Technology Centre of Excellence within SSE’s Renewables and SSE’s Thermal enable technology and digital solutions for cost-effective renewables and innovation in pumped hydro, Carbon Capture and Storage (CCS) and hydrogen.

**Digitalisation**

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

**Partnering for innovation**

SSE seeks to proactively engage with external partners including supply chain, local authorities, academia and wider industry, and has built experience in forming effective consortia. Co-creation with energy industry peers is crucial to facilitate whole-system solutions and SSE is a member of several ongoing Collaborative Innovation Partnerships. SSE has an established partnership with the University of Strathclyde of almost 20 years; has been a member of the Imperial Business Partners programme for over four years; and, has been a partner in the NexSys programme hosted by University College Dublin since 2021.

**Innovation in action**

- **SSE Thermal’s FOCCUS project to abate start up and shutdown emissions (page 57)**
- **SSE Renewables’ partnership on the Coalition for Wind Industry Circularity (page 86)**

**Innovation by deployment**

SSE’s aim is to accelerate technologies to higher readiness levels for deployment, learn from other utilities and industries and mitigate the risks of implementation of new technologies. SSE is a founding member of two National Demonstration Research Centres and leading a number of transformational industry projects, through which its businesses are able to manage trials to test and scale new solutions.

**Innovation in action**

- **SSE Renewables’ electron beam welding at Dogger Bank wind farm (page 51)**
- **SSEN Transmission’s use of SF₆ alternatives (page 23)**

**Talent**

SSE promotes a culture of empowering employees to drive innovation and it does this through programmes such as Generation Innovation, Enterprise Ideas, Centres for Doctoral Training at various universities, and a knowledge transfer partnership with the University of Strathclyde. SSE’s talent strategy focuses on inclusivity, fairness, and flexibility to attract a diverse range of talent across the business, as well as developing future leaders and the capability to respond to the future needs of the business.

**Innovation in action**

- **SSE Group Procurement’s social value innovation project (page 48)**

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**Innovation in action**

- **SSE Group Procurement’s social value innovation project (page 48)**
Embedding sustainable supply chain practices

With the potential for up to £40bn of investment over the next decade, high-quality collaboration with supply chain partners is essential to mitigate risks, enhance innovation, and create resilience to support the achievement of shared sustainability goals.

A strategic approach to sustainable procurement
SSE’s enhanced investment plan, NZAP Plus, will see the Company invest on average £3bn a day in critical national infrastructure. In 2022/23, SSE’s procurement spend totalled around £3.8bn and it typically has around 9,000 suppliers. This scale of investment and activity requires careful management of the most significant sustainability impacts that may arise. In 2022/23, a materiality assessment undertaken of SSE identified supply chain management as one of the Company’s top five most material sustainability issues, and identified the positive impact SSE could have through continued efforts in this area.

While SSE’s suppliers can be large global organisations, it aims to work locally to share the economic benefit of low-carbon investments with sustainable domestic employment. This is a key component of shared value: it means working people, particularly those currently in industries which are in decline, can access new skills and jobs.

SSE’s Sustainable Procurement Code and Supplier Guidance form the core of its approach to managing environmental and social impacts through its supply chain (see page 47 for more information). The Code sets out SSE’s expectations of its suppliers and, as well as setting out minimum standards, it outlines the role of suppliers in delivering common sustainability goals, from paying a real Living Wage to helping SSE achieve its net-zero emissions target. Core to SSE’s strategic approach to sustainable procurement is its focus on quality supplier engagement. One key route of engagement is SSE’s established Supplier Relationship Management programme, through which it manages relationships with 45 suppliers identified as critical to SSE achieving its strategic aims. Engaging with suppliers allows SSE to understand and address sustainability issues throughout the supply chain by collaborating to identify opportunities for improvement, implement sustainable practices, and collectively improve sustainability performance.

Aligning supply chain requirements with business objectives
Through its Sustainable Procurement Code, SSE seeks to create the conditions by which the Company and its supply chain can support the delivery of shared sustainability objectives. An example of this is driving increased climate action, with SSE having a target to engage with 50% of its supply chain by spend to set science-based carbon targets by 2024 (see page 25 for progress).

Completing the Group approach, SSE’s individual Business Units are designing enhanced supplier requirements that more closely match the sustainability priorities of their business. For example, in 2022/23 SSE Renewables, developed an enhanced environmental, social and governance (ESG) and Sustainability Clause. This contractual clause outlines expectations on suppliers to comply with SSE’s Sustainable Procurement Code and align with its sustainability policies, enhanced reporting, increased due diligence, and auditing rights.

With a more regional supply chain, over 2022/23, SSEN Distribution undertook a comprehensive assessment of the maturity of its supply chain in relation to the management of sustainability risks and opportunities. This process, along with supply chain collaboration during engagement sessions for its RTO-ED2 business plan, led the business to produce a more tailored Sustainable Supplier Code as a framework for collaboration with its supply chain through the ED2 price control between 2023 and 2028. The new Sustainable Supplier Code was launched in May 2023 and outlines 11 targeted metrics for SSEN Distributor’s supply chain to follow.

Capturing increased supply chain data
In April 2021 SSE adopted a supply chain data capture tool to identify the sustainability impact of projects. Over 2022/23, SSEN Transmission has been rolling the requirement to complete the tool to its suppliers. Tier 1 contractors are now contractually required to use the Sustainability Tool within the current RTO T2 price control period, and so far 10 supply chain partners are using the tool across more than 20 projects. SSE Distributed Energy and SSE Renewables will be adopting the tool going forward.

Enhancing SSE’s Sustainable Procurement Code
In 2022/23, SSE strengthened its Sustainable Procurement Code in several priority areas with the inclusion of circular economy principles, requirements to adhere to Living Hours and expectations for suppliers to report additional safety performance metrics, SSE is tracking its suppliers’ engagement and approval of its Sustainable Procurement Code and Guidance through a source-to-contract platform, finding that they had a 97% acceptance rate at 31 March 2023. Over 2023/24 the Sustainable Procurement Code will be updated further to outline SSE’s sustainable procurement journey, future ambitions, supply chain goals and provide more specific material requirements.

Supporting compliance with the Sustainable Procurement Code
A comprehensive survey of over 160 procurement professionals was undertaken in 2022/23 which identified skills and knowledge gaps relating to sustainability expertise. This analysis identified skills needs and training was developed to support and enable sustainable decision making within the procurement process.

In addition, as part of its System of Internal Control, an internal audit of SSE’s implementation of its Sustainable Procurement Code and Supplier Guidance was undertaken. This initial audit has produced high-level findings around potential areas of improvement, which will be used to create an action plan to implement any required changes over 2023/24.

Enhanced supplier payment practices
SSE seeks to meet the requirements of the Prompt Payment Code, a voluntary code of practice for businesses, administered by the Office of the Small Business Commissioner on behalf of the UK Government. It was established in December 2008 and sets standards for payment practices between organisations of any size and their suppliers. To align with the code SSE commits to paying suppliers on time, within agreed terms, providing clear guidance to suppliers on terms, dispute resolution and prompt notification of late payment, and supporting good practice throughout its supply chain by encouraging adoption of the Code.

In 2021, the Code was strengthened to include a requirement to pay 95% of invoices within 30 days, and a requirement that 95% invoices from small businesses (with fewer than 50 employees) must be paid within 30 days. Effective from 1 July 2021 (for existing signatories), To align, SSE has been working to identify those suppliers who have fewer than 50 employees, analyse its payment performance for small suppliers, and create remediation plans for those that were not paid within the timeframe. Since 2021, SSE identified over 6,000 small suppliers and completed the analysis, and is working with local finance teams on the remediation plans where required. In April 2023, SSE completed its six-monthly submission of Payment Practices, which included Small Business Data. To ensure small suppliers are identifiable moving forward SSE aims to update all supplier records with business size and update new supplier forms to include mandatory field to capture
Innovating in industry, innovation and infrastructure

employee numbers

Collaborating to drive industry-wide progress

Driving meaningful supply chain collaboration

The Powering Net Zero Pact (the Pact) is a flagship collaborative initiative created by SSE with 10 key founding partners. Over 2022/23, the Pact has grown to 20 member companies and brings together different companies across all tiers of the power sector, identifying five key topics for collaboration to do a fair and just transition to net zero. The Pact members have operations across more than 120 countries, combined turnover of more than £70bn, over 350,000 employees, and more than 170,000 suppliers.

Over 2022/23, the focus of the Pact was establishing the working groups for the five topics of collaboration. In May 2023, the Pact released its first annual report of progress, which details the activity of the five working groups, their agreed priorities and what the joint deliverables are for the first two years. This report, alongside more information on the Pact, can be found at sse.com/pact.

Providing supplier sustainability training

SSE has been a partner of the Supply Chain Sustainability School (SCSS) since 2020. Through this partnership, SSE provides its supply chain with information, resources and access to training on key sustainability topics. Over 2022/23, SSE improved its engagement and measurement with the SCSS to enable it to develop a plan to increase supplier participation in the training programmes. As of 31 March 2023, 99% of SSE’s suppliers (45% of SSE’s supply chain spend) have accessed sustainability resources through the SCSS. SSE has set a target to increase this to 55% by 31 March 2024, using learning pathways and SSE’s Strategic Relationships Management meetings to stimulate engagement on the platform.

Encouraging inclusion and diversity in SSE’s supply chain

SSE is committed to promoting inclusion and diversity throughout its supply chain, supporting businesses and people in the area it operates by ensuring inclusion and diversity are part of the supplier selection process. SSE’s sustainable procurement strategy, underpinned by the Sustainable Procurement Code, includes expectations that suppliers will promote greater inclusion. Over 2022/23, the Code was updated to include further requirements of suppliers, including to: ensure their policies and processes are inclusive for all; provide evidence of policies and practices that result in improved inclusion and diversity of the workforce; and, provide information on the results of those practices, if requested by SSE. For more information see SSE’s Inclusion and Diversity Report 2023.

Creating social value with key suppliers

As part of an initiative developed for SSE’s Procurement and Commercial department’s leadership development programme in 2020/21, employees were challenged to deliver a project that would add value to SSE. The group of developing leaders identified the potential for enhanced social value within SSE’s supply chain. A pilot was run which saw SSE work closely with two successful framework suppliers, a tree cutting contractor and a subcontractor of an existing framework contractor within IT, to identify where social value could be built into the contract and the framework could be utilized to monitor the delivery of these commitments. Examples of social value commitments include apprenticeship schemes, local school engagement, donations to community projects, and mandatory volunteering requirements for operatives.

These initial pilot projects confirmed the potential of the value that can be created through SSE’s supply chain activity, and following this success SSE is rolling out this approach across its supply chain over 2023/24.

As part of SSE’s social value approach over 2022/23, a Social Value Roadmap was created in collaboration with a third party, Action Sustainability. This comprised of conducting a gap analysis to determine how SSE performs on embedding social value and identify best practice. A list of key actions in a strategic timeline was produced, which SSE will begin to implement over 2023/24, collaborating with its supply chain to further create and measure social value.

Increased renewables ambition and growth

SSE Renewables is driving the net zero transition through the development, financing, construction and operation of world-class clean energy assets.

Accelerating the transition to net zero

SSE’s new NZAP Plus capex plan will see £18bn of investment over the five years to 2027, with 40% of that investment being allocated to SSE Renewables. The NZAP Plus, combined with an enhanced growth target, seeks to deliver a fourfold increase in SSE’s owned renewables capacity to over 16GW (inlet by 2032).

SSE’s plans for increasing installed renewable generation capacity (including battery storage):

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity (GW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022/23</td>
<td>4GW</td>
</tr>
<tr>
<td>2027</td>
<td>9GW</td>
</tr>
<tr>
<td>2032</td>
<td>16GW</td>
</tr>
</tbody>
</table>

Creating an optimal structure for growth

The SSE Renewables business comprises existing operational assets and those under development in onshore wind, offshore wind, flexible hydro electricity, run-of-river hydro electricity, pumped storage, as well as solar and battery technology co-located on existing UK and new international markets. In January 2023, SSE Renewables announced plans for its first solar and battery installation, co-located at its existing operational wind farm in Co. Wexford, Ireland. The planning application for the project, a 23MW solar photovoltaic (PV) array and a 130MW/77MW battery energy storage system, will be submitted in the coming months.

In April 2023, the standalone Solar and Battery business, that had previously been reported alongside SSE’s Distributed Energy, was integrated into SSE Renewables, further enhancing SSE Renewables’ focus on these technologies. Future ambitions for the Solar and Battery business are therefore referenced in this section, while information about performance for the past year can be found in the Distributed Energy section of this report on pages 38 and 39.

A year of milestones for flagship projects

SSE Renewables made good progress with its key flagship projects in 2022. First power was achieved at the 1,075MW Seagreen Offshore Wind Farm and significant progress was made on Dogger Bank, the world’s largest offshore wind farm, including the opening of the operations and maintenance base in South Tyne. What will be the UK’s most productive onshore wind farm, the 250MW Viking Onshore Wind Farm, remains on track for operation in 2024. More detail on progress made for key projects can be seen on pages 30 to 32.

Growth opportunities at home and abroad

SSE Renewables’ core markets of the UK and Ireland continue to offer considerable growth opportunities and milestones were reached in key offshore projects with a consent application submitted to the Scottish Government for develop Berwick Bank wind farm in the outer Firth of Forth and the Environmental Impact Assessment Scoping Report for the Ossian Array, which includes the 36GW Ossian offshore
Investing in industry, innovation and infrastructure

Wind farm (SSE Renewables share 40%), submitted to the Scottish Government in March 2023.

Also in March 2023, SSE Renewables confirmed a £100m commitment to further develop plans for the c. 1.3GW Core Gas pumped hydro storage project. The project, which received planning consent from the Scottish Government in 2020, would more than double Britain’s total current electricity storage capacity and could play a significant role in supporting the UK Government’s 2035 target for a decarbonised power system.

SSE Renewables continues to progress development opportunities across Europe, Asia-Pacific and North America. In Southern Europe, two projects in France and Spain are targeting construction commencing in Summer 2023, with at least one further project targeting a final investment decision later in the financial year. SSE Renewables is also continuing to explore development opportunities in Northern Europe, Asia-Pacific, and North America with several tenders currently in progress.

<table>
<thead>
<tr>
<th>GB and Ireland pipeline projects capacity</th>
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</thead>
<tbody>
<tr>
<td>In construction</td>
</tr>
<tr>
<td>2GW</td>
</tr>
<tr>
<td>In development (early and late stage)</td>
</tr>
<tr>
<td>Other future projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other international pipeline projects capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>In development (early and late stage)</td>
</tr>
<tr>
<td>Other future projects</td>
</tr>
</tbody>
</table>

Note: All capacities are pro-rated to reflect SSE’s ownership share in the project and are subject to change as projects are refined. Table reflects ownership and development status as at May 2023. Late-stage is consented in GB and grid or land security elsewhere; early-stage has land, rights in GB and some security over planning or land elsewhere. Future projects are named sites where non-exclusive development activity is under way. Additional solar and battery storage projects reflect Solar and Battery team now forming part of SSE Renewables.

1 Includes solar hybridisation.

INNOVATION IN ACTION

Using innovative technology at all stages in wind farm projects

CONSTRUCTION
Pioneering sustainable engineering for offshore wind
In January 2023, the first-ever electron beam welded section was incorporated into an offshore wind turbine monopole foundation, which will be installed in the second phase of Dogger Bank Wind Farm later in 2023.

The pioneering £2.5m project, co-funded by the UK’s innovation agency, Innovate UK, was led by SSE Renewables in collaboration with Sif, Cambridge Vacuum Engineering and TWI, and created a new, more productive and more sustainable manufacturing process for the welding of large steel structures for offshore wind.

Electron beam welding is significantly quicker, cheaper, more energy efficient and produces high-quality welds compared to conventional welding techniques. This specific type of electron beam welding technology (EBflow) is an innovative development within the electron beam welding industry; instead of welding inside a costly and time-consuming vacuum chamber, EBflow uses a local vacuum system that creates and maintains a vacuum around only the seam that is being welded.

This technique opens up the potential to use electron beam welding on large structures, while reducing costs and enhancing productivity. The technology has been shown to weld monopoles at least 25 times faster than current methods, while using 90% less energy, costing 88% less, and producing 97% less CO₂ emissions.

DEVELOPMENT
Using 3D visualisation to enhance community engagement
SSE has developed virtual reality (VR) technology to provide 3D visuals of wind turbines which can be used during in-person consultation events. The VR application allows members of the public to explore the inside of a wind turbine and find out more about how they work in an immersive and effective way. Users can view impressions of development sites from key vantage points on the coastline, the sea area and the onshore cable route. The technology will help to facilitate meaningful public engagement and increase the transparency of project plans.

OPERATION
Species monitoring using artificial intelligence
In December 2022, SSE Renewables, with partners Microsoft, Avanade and NatureScot, won the Scottish Green Energy Award for Innovation for the use of Artificial Intelligence (AI) when monitoring species.

The AI technology consists of cameras that gather footage and automatically detect and count the species being monitored which enables the collection of valuable and accurate data, ensuring the environment is protected.

It was initially tested to monitor puffin colonies as part of planning conditions for the Beatrice Offshore Wind Farm and since the successful trial, it has been used to monitor other species, including salmon, across SSE Renewables sites.

This project is part of an ongoing partnership between SSE, Microsoft and Avanade on a series of digital innovation projects which are developing solutions to improve understanding of the impacts wind farms have on surrounding ecosystems.
Investing in industry, innovation and infrastructure

A transmission network critical to net zero

SSEN Transmission is enhancing investment plans to unlock the vast renewables potential in the north of Scotland, in response to accelerated national renewable energy targets.

The abundance of renewable energy in the north of Scotland means every plausible pathway to net zero in the UK requires the transportation of very large quantities of green electricity from the north to the south. This urgent imperative motivates the whole of the team in transmission not only to provide electricity to our customers reliably, but to develop the new projects in an orderly, efficient and open way too.”

Rob McDonald
Managing Director,
SSEN Transmission

Powering a pathway to 2030

In July 2022, the National Grid Electricity System Operator (ESO) published Pathway to 2030 Holistic Network Design (H-ND).

The report sets out the blueprint for the electricity transmission network infrastructure required to enable the forecast growth in renewable electricity across Great Britain, including the UK and Scottish Governments 2030 offshore wind targets of 5GW and 11GW, and confirms the need for significant investment in electricity transmission infrastructure in north of Scotland.

In December 2022, Ofgem published its Accelerated Strategic Transmission Investment (ASTI) framework decision, which provided the regulatory framework under which those HND investments will be taken forward. Ofgem’s ASTI decision confirms that all SSEN Transmission projects identified by the Electricity System Operator are required to meet 2030 offshore wind targets will now be taken forward as part of the ASTI framework. The combination of inflight investments plus the eight ASTI projects are outlined in the map and represent estimated total project costs in excess of £11bn.

Financing future growth

In November 2022, SSE announced it had reached an agreement to sell a 25% minority stake in SSEN Transmission to Ontario Teachers’ Pension Plan Board, for just under £1.5bn. The sale of a minority stake allows SSE as the majority shareholder to retain control in relation to operating and managing the business, with Ontario Teachers’ Pension Plan Board proportionately represented on SSEN Transmission’s Board of Directors. This partnering approach has been successful in other areas of the business, including SSE Renewables, and helps to unlock finance for significant growth in both SSEN Transmission and across the wider SSE Group.

Unlocking clean, secure energy for the Scottish islands

Scotland’s island groups are home to some of world’s greatest resources of renewable energy and SSEN Transmission has long supported the need to provide transmission connections to help unlock their abundant potential, whilst also importantly providing security of supply for island communities.

In March 2023, Ofgem announced that it provisionally approved much needed plans to provide a subsea electricity transmission link to Orkney.

SSEN Transmission’s proposed solution would enable the connection of up to 220MW of new renewable electricity and consists of a new substation at Fintown in Orkney, and around 57km of subsea cable, connecting to a new substation at Dounraey in Caithness.

Ofgem’s decision is the final piece in the jigsaw to connect all three of Scotland’s main island groups, following its approval of the Western Isles link in December 2022 as part of the ASTI framework decision and work to connect Shetland, which is already well underway.

Progressing strategic innovation projects

In August, SSEN Transmission welcomed the decision to progress all three of its projects submitted to the Discovery Round 2 stage of Ofgem’s Strategic Innovation Fund (SIF).

The SIF is designed to drive the innovation needed to transform gas and electricity networks for a low-carbon future. The fund seeks to identify and fund ambitious, innovative projects which can help shape the future of the energy networks and accelerate the transition to net zero, at the lowest cost to consumers. SSEN Transmission has been successful in securing three projects, which are aimed at tackling some of the energy industry’s biggest challenges.

Innovative Network Status Intelligence Gathered by Holistic use of Telemetry and Simulation (INSIGHT): Providing strategic insight to help inform network design

Delivery of a virtual, real-time alert and control system that can monitor and mitigate different types of oscillation events experienced on the networks. Combining learnings from past events with new modelling and simulation techniques, it will better understand the nature of new oscillations, how to predict them and how to address them in network design and operation for future events.

De-risking the HVDC cable supply chain (SECURE):

Creation of a geographically planning tool to provide a dynamic view of all future connection requests. The tool will enable users to identify alternative grid connections, by using modelling data that assesses grid impact of a connection, combined with a spatial planning tool which will incorporate the current and future power and gas infrastructure.

Early identification of grid connection alternatives

Rapid Evaluation Area Connection Tool (REACT): Ensuring greater supply chain resilience

Employment of cutting-edge digital solutions and develop an innovative Digital Supply Chain Hub (DSCH) to achieve greater visibility and knowledge of the High Voltage Direct Current (HVDC) cable supply chain, ensuring greater supply chain resilience and strategic insight.

Main north of Scotland electricity transmission network in 2030

Key:
- In-flight investments
- Existing network
- New infrastructure
- New substation
- Upgrade/replacement of existing infrastructure

Pathway to 2030 investments

1. Angle 275kV strategy
2. Fort Augustus to Shye 132kV upgrade
3. Orkney 220kV AC subsea link
4. Beauly to Loch Buidhe to Spittal 400kV
5. Spittal to Peterhead 2GW HVDC subsea link
6. Peterhead to Drax 2GW HVDC subsea link – Eastern
7. Peterhead to Alyth (with connection to Alyth) to Westfield 400kV (with SPT)
8. Kintore to Tealing (with connection to Alyth) to Westfield 400kV (with SPT)
9. Fort Augustus to Skye 132kV upgrade
10. Peterhead to Blackhill to New Deer to Peterhead 400kV
11. Beauly to Denny 400kV Uplinking (with SPT)
12. Kintore to Tealing (with connection to Alyth) to Westfield 400kV (with SPT)
13. Western Isles 1.8GW HVDC link
14. Orkney 220kV AC subsea link
15. Beauly to Loch Buidhe to Spittal 400kV
16. Peterhead to Blackhill to New Deer to Peterhead 400kV
17. Beauly to Denny 400kV Uplinking (with SPT)
18. Kintore to Tealing (with connection to Alyth) to Westfield 400kV (with SPT)
19. Fort Augustus to Skye 132kV upgrade
20. Peterhead to Drax 2GW HVDC subsea link – Eastern
21. Peterhead to Alyth (with connection to Alyth) to Westfield 400kV (with SPT)
22. Peterhead to Alyth (with connection to Alyth) to Westfield 400kV (with SPT)
23. Western Isles 1.8GW HVDC link

Progressing strategic innovation projects

INNOVATION IN ACTION

Subject to timely and positive planning decisions and the outcome of competitive tenders for delivery of these projects, SSEN Transmission is committed to 2030 delivery of these projects. In light of these developments, SSEN Transmission has updated its long-term Regulated Asset Value target, which is now expected to exceed £11bn by 2032.

Innovative Network Status Intelligence Gathered by Holistic use of Telemetry and Simulation (INSIGHT):

Providing strategic insight to help inform network design

Delivery of a virtual, real-time alert and control system that can monitor and mitigate different types of oscillation events experienced on the networks. Combining learnings from past events with new modelling and simulation techniques, it will better understand the nature of new oscillations, how to predict them and how to address them in network design and operation for future events.

De-risking the HVDC cable supply chain (SECURE):

Ensuring greater supply chain resilience

Employment of cutting-edge digital solutions and develop an innovative Digital Supply Chain Hub (DSCH) to achieve greater visibility and knowledge of the High Voltage Direct Current (HVDC) cable supply chain, ensuring greater supply chain resilience and strategic insight.
Investing in industry, innovation and infrastructure

Powering communities to net zero

The need to tackle climate change, combined with increasing digitalisation of society, requires a transformation in the way that local electricity networks operate, with new forms of generation and demand already connecting to SSEN Distribution’s network.

Accelerating investment in local networks for net zero

The RIIO-ED2 price control period, which runs from 1 April 2023 to 31 March 2028, is a vital foundation supporting the UK and Scottish Governments meet their ambitious legally binding climate targets. Electricity networks will need to grow and adapt to accommodate the uptake of low-carbon demand, such as heat pumps and EVs, at the same time as connecting locally low-carbon generation, such as solar.

SSEN Distribution is already seeing a significant rise in the uptake of low-carbon technologies, particularly EV charge points, heat pumps, and battery storage. The business has seen a 75% increase in the number of registered electric vehicle charge points connected compared to last year.

The new price control period will see the acceleration of SSEN Distribution’s capital investment programme across both its network areas, delivering significant improvements for customers and supporting the delivery of future smart grids.

Plans to power communities to net zero

SSEN Distribution’s Business Plan targets significant improvements to reliability, resilience, and services for customers alongside acceleration of investment in local network infrastructure and flexible systems needed to power communities to net zero. It is a culmination of over two years’ work, during which extensive engagement was undertaken with more than 25,000 stakeholders, to ensure that the plan was shaped by industry specialists and co-created with those who live in the communities SSEN Distribution serves.

Framed around a sector-leading commitment to a 1.5°C science-based target pathway, the plan aims to deliver positive impact to society through supporting a just transition and driving local economic growth.

In November 2022, Ofgem published its Final Determination for the RIIO-ED2 electricity distribution price control, which allows SSEN Distribution £3.6bn of baseline total expenditure for the five-year period and an initial business case of £4bn. This reflects positive movement from the Draft Determination in June, with baseline allowances increasing by £900m. The Final Determination also includes potential additional investment opportunities for SSEN Distribution of up to £0.7bn over the period through uncertainty mechanisms and repainters.

Key milestone reached in heat pump trial

In December 2022, a key milestone was reached in the Re-HEAT project, with the first combined heat pump and home heat battery storage system installed in a home near Inverness.

The Re-HEAT project is testing the benefits of zero-carbon heating for households and how Distribution Network Operators (DNOs) can manage the impact that heat pumps may have on grids. It is the first DNO-led SP Energy Networks and SSEN Distribution) large-scale heat trial and will see 150 homes in domestic homes across three local authority areas. Those heat pumps will be connected to thermal storage units, enabling customers to be more flexible in the times they use electricity for heating.

The project will test whether participating households can reduce their energy bills compared to LPG, oil or pure electric heating, for example by taking advantage of times when electricity prices are lower to charge their heat batteries. In the future, smart devices will allow households and businesses to benefit from flexing their energy use in response to a request, which will give them greater control over their energy bills whilst helping to balance supply and demand on the local electricity network.

PARTNERING IN ACTION

Delivering better outcomes for customers through innovation collaboration

In July 2022, SSEN Distribution and UK Power Networks (UKPN) announced their Collaboration Charter through which they have committed to sharing innovation solutions to deliver customer benefits, by first following each other’s innovative solutions. The network operators have agreed to: share learning and best practice; deliver a programme of innovation projects more efficiently; and, innovate in Business as Usual areas in the RIIO-ED2 price control period.

The two DNOs have an established relationship that is already completely focused on building a smarter, more flexible and more resilient network during and beyond the next five years.

Chris Burchell
Managing Director, SSEN Distribution

“Networks will unlock the electrification of the economy with billions of pounds in investment to create modernised and flexible local electricity grids fit for a net-zero world. At SSEN, we are completely focused on building a smarter, more flexible and more resilient network during and beyond the next five years.”

INNOVATION IN ACTION

Findings from Project Local Energy Oxfordshire (LEO)

In February 2022, the final report was published from Project Local Energy Oxford (LEO), one of the UK’s most ambitious, wide-ranging and innovative energy trials. The £40m collaboration, in which SSEN Distribution was the lead partner, sought to demonstrate how the growth in small scale renewables, EVs, battery storage and demand side response can be supported by a local, flexible and responsive electricity grid.

Over the four years since its launch, this collaborative project has conducted multiple trials, issued numerous reports and gained vital insight into what a smart and flexible energy system of the future could look like. The project has also studied the infrastructure, markets and regulations that should be put in place to make this flexibility commercially and technically viable.

The final report shares 13 key learnings from Project LEO with industry and policymakers, to help inform the structures that will enable and support the transition to net zero. Key recommendations include:

1. Local Area Energy Plans should be mandatory; convened by local authorities whose central role is supported by appropriate resourcing, and dedicated to a ‘whole systems’ approach that will adopt the best solutions for each area, informed by the priorities of the local community.

2. Aggregators, in the widest sense, are essential to develop flexibility markets: offering the skills and expertise that can open up participation in flexibility markets to whoever wishes to engage – this will be core to delivering a fair transition.

3. The regulatory framework must support investment: from network operators in electricity infrastructure, data and digital for the long term and in anticipation of new demand, to ensure net zero targets are reached.

While the final report signals the end of Project LEO, it is just the beginning of the development of a smarter and more flexible energy system, and each of key learnings from the final report will help shape the blueprint.
A strategic role for flexible low-carbon thermal generation

The value of SSE’s flexible thermal generation – to both shareholders and society – was demonstrated clearly in 2022/23. The energy market circumstances of the past 12 months make an even stronger case for accelerated policy and investment in its lower-carbon alternatives.

Developing decarbonised alternatives to the existing CCGT fleet will be vital to deliver SSE’s goal to cut carbon intensity by 80% by 2030 and achieve its science-based carbon reduction targets, aligned with a 1.5°C pathway.

**CCS key to the transition from unabated to abated gas generation**

The critical nature of flexible, back-up generation in the GB electricity system was reinforced by a key report from the UK’s Climate Change Committee in March 2023. The report recommends to the UK government that new low-carbon back-up generation some continued use of fossil gas, made low-carbon through use of carbon capture and storage (CCS) is urgently required.

SSE recognises this requirement and is actively developing options to progressively decarbonise its portfolio, particularly at its sites at Keady in the Humber and Peterhead in the north east of Scotland.

In December Keady 3 Carbon Capture Power Station became the first power-CCS project to secure planning consent in the UK. Alongside the contract awarded in June for the completion of the carbon capture and storage (CCS) demonstration project, SSE has established a pipeline of potential CCS projects in the UK. Projects in Scotland were identified as a “mindset to” next tranche of CO2 transport and storage system for deployment by 2030. Acorn would provide CO2 storage for Peterhead Carbon Capture Power Station. Peterhead Carbon Capture Power Station is continuing to develop with a planning application submitted in March 2023 and announcement of the award of a FEED contract in July. It remains well-placed to participate in future Dispatchable Power Agreement allocation processes.

SSE remains confident that CCS will, in time, be built at both Keady and Peterhead, both of which are essential for the UK to meet its net zero targets.

**The essential role of hydrogen in a decarbonised power sector**

The UK’s Climate Change Committee further reinforced the essential role for hydrogen power generation in a future decarbonised power sector in 2030. While the hydrogen value chain must develop and mature quickly, SSE has established a pipeline of potential option which it is pursuing through government support frameworks and mechanisms.

Key to this is Aldbrough Hydrogen Pathfinder. SSE’s Thermal’s hydrogen value chain proof-of-concept project, which was shortlisted to progress to a due diligence phase after submitting a bid for funding and Hydrogen Production Business Model support through the Net Zero Hydrogen Fund. Aldbrough Hydrogen Pathfinder seeks to unite hydrogen production, hydrogen storage and a 100% hydrogen-fired open-cycle gas turbine (CCGT) on one site by the middle of the 2020s. This project will enable and inform the scaling up of SSE’s, and the wider Humber, and the UK’s hydrogen ambitions and help de-risk further hydrogen investment.

SSE is continuing to develop options for hydrogen blending at its new unabated CCGT plant at Keady 2, with pre-FFID activity under way. Option assessment and scoping activity for a further 100% hydrogen-fired CCGT at Keady also continues.

**Securing supply and finding a low-carbon pathway in Ireland**

In Ireland, SSE Thermal is advancing projects using sustainable biofuel as a lower carbon alternative to fossil fuels and as a bridge to hydrogen. In March it provisionally secured 10-year Capacity Market agreements for two new low-carbon power stations to commence in 2026. 269MW at Tarbet and 140MW at Platin. The proposed low-carbon units at Tarbet in Co. Kerry and Platin in Co. Meath would help to protect security of supply and provide flexible backup to Ireland’s growing renewables sector. The proposed units will initially run on Hydroprocessed Vegetable Oil (HVO), which is produced by processing waste oils to create a fossil-free alternative to diesel in accordance with EU sustainability standards. This would provide a bridge to a hydrogen future with both countries having the potential to convert to the fuel.

Low-carbon projects in Ireland are progressing alongside activity to deliver a Temporary Emergency Generation Unit, at the request of the Irish authorities. Following legislation and a site selection process undertaken by EirGrid, approved by the Commission for the Regulation of Utilities, the Tarbert site was selected to host 150MW of generation capacity, to run on distillate oil. It will operate as an emergency plant with a maximum 49 running time of 500 hours per annum. Under the Irish Government’s emergency generation legislation, this capacity is to cease operations as soon as the temporary electricity emergency has been addressed, and no later than March 2030. The unit would only be utilised when it is clear that market-sourced generation will not be sufficient to meet system needs.

**Increasing carbon capture efficiency**

In June 2022, the Flexibly Operated Capture Using Solvent Storage (FOCUS) project was awarded grant funding from the Department for Business, Energy & Industrial Strategy (BEIS). The project is being led by SSE Thermal and supported by AECOM and the University of Sheffield, with the US-based National Carbon Capture Center (NCCC) also involved in the collaboration.

The primary objective of FOCUS is to reduce CO2 emissions from carbon capture and allow consistent capture levels of between 95% and 99% to be achieved. Testing will take place at the University’s Translational Energy Research Centre, before scaled up testing at the NCCC, which involves advanced modelling techniques and pilot plant test campaigns. During its first year, the FOCUS project has achieved significant milestones with numerous public engagement campaigns, solidifying its position as a frontrunner in the field of carbon capture and utilisation.

BEIS awarded the grant as part of its Carbon Capture Usage and Storage (CCUS) Innovation 2.0 competition, which aims to accelerate development of next-generation CCUS technology in the UK so that it can deploy at scale by 2030.
Committed to decent work and economic growth

In the transition to net zero, SSE seeks to share the value created widely in a way that is fair and just, leaving no-one behind.

SSE’s investment plans, while directed at low-carbon infrastructure, will deliver significant economic benefits to the places in which it operates. SSE recognises that the value it creates must be shared widely and in a way that creates lasting, positive impacts for employees, consumers, communities, suppliers, and wider society.

Champion a fair and just energy transition

Be a global leader for the just transition to net zero, with a guarantee of fair work and commitment to paying fair tax and sharing economic value.

To ensure accountability to its stakeholders, SSE took steps to measure progress against the 20 principles of its Just Transition strategy and achieved the Fair Tax Foundation’s new Global Multinational Business Standard accreditation. Over 2022/23, SSE continued to drive both action and accountability towards a just transition, publishing two new reports detailing its progress and thought leadership around the topic. SSE’s commitment to fair tax was reaffirmed as it became the first company to transition from the Fair Tax Foundation’s UK HQ Multinational accreditation to the Foundation’s new Global Multinational Business Standard. SSE implemented the annual increase in the real Living Wage, which was brought forward by two months in recognition of the cost-of-living crisis, and continued to work towards rolling out its Living Hours commitment across its supply chain.
Committed to decent work and economic growth

Performance summary

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<th>Category</th>
<th>Key performance indicator</th>
<th>Unit</th>
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<td>%</td>
<td>93.7</td>
<td>94.4</td>
<td>94.1</td>
</tr>
<tr>
<td>Voluntary turnover rate</td>
<td>% of total turnover</td>
<td>%</td>
<td>70/66.2</td>
<td>78/63.6</td>
<td>36/45.7</td>
</tr>
<tr>
<td>Lost days due to sickness</td>
<td></td>
<td>%</td>
<td>83/65.0</td>
<td>68/27.0</td>
<td>66/96.2</td>
</tr>
<tr>
<td>Average lost days per head</td>
<td></td>
<td>%</td>
<td>6.9</td>
<td>6.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Employee engagement survey score</td>
<td></td>
<td>%</td>
<td>84</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Median UK gender pay gap</td>
<td></td>
<td>%</td>
<td>15.3</td>
<td>18.0</td>
<td>18.3</td>
</tr>
</tbody>
</table>

Reduce the risk of modern slavery

Labour rights

Total recordable injury rate – employees and contractors combined | Per 100,000 hours | 0.19 | 0.17 | 0.14 |

Employees covered by collective bargaining agreements (UK & Ireland) | % | 50.3 | 54.2 | 53.9 |

Speak up (whistleblowing) contacts made | Number | 50 | 49 | 666 |

1 Total direct, indirect and induced Gross Value Added, from PwC analysis. 2020/21 and 2021/22 GVA data has been adjusted to current prices. Scotland data is included within, rather than in addition to, UK data. 2 See page 64 for further details. 3 See page 64 for further details. 4 2020/21 figures were unusually low due to the impacts of coronavirus. See page 86 of SSE’s Sustainability Report 2021 for more information.

Powering a just transition

SSE is working to ensure the benefits and costs of climate action are distributed in the fairest way possible for working people, consumers and communities.

A pioneering strategy for a just transition

In November 2020, SSE published its Just Transition Strategy, which sets out 20 principles to guide the company as it transitions into a net zero world, and out of a high-carbon world, ensuring that the decisions it takes are fair and that it maximises the opportunities for all. With the scale and scope of the transition impacting both economically and socially, SSE explicitly recognises there is a business case for fairness to be experienced and perceived by its employees, customers and the wider public. In 2022/3, a materially review of SSE’s sustainability impacts, identified the pursuit of a just transition as being one of three opportunities for enhanced impact. Further reinforcing the priority given to managing the social consequences of the Company’s transition to net zero.

The 20 principles sit under five key themes: good green jobs; consumer fairness; building and operating new assets; looking after people in high-carbon jobs; and, supporting communities. The principles guide SSE in its decision making and approach in ensuring that the benefits arising from the transition to net zero are shared widely. Social impacts are considered an important interdependency within SSE’s Net Zero Transition Plan with its just transition principles integrated into its actions for net zero.

Making the case through practical action

Since the publication of its Just Transition Strategy in November 2020, SSE has sought to make the case for a just transition through practical action and transparency. It understands it has influence on the way the transition is implemented, however, there is a recognition that SSE cannot, on its own, deliver justice across the entire energy sector. It believes practical real-world action can be a powerful demonstrator of the benefits of pursuing just transition principles.

In 2022/23, SSE continued to engage extensively with stakeholders on the impacts of its activities to exit from high-carbon activity, and its low-carbon developments. A short documentary was produced to engage stakeholders on just transition principles, and two reports were published to develop thought leadership and accountability. SSE recognises the importance of being open and transparent around its efforts in progressing towards net zero and that, in order to assess performance, it is important that actions can be measured and the Company is held to account. In April 2023, following collaborative engagement with stakeholders, including its trade union partners, and key interested investors SSE, published the fourth in its series of just transition reports, which focused on measuring the progress that SSE has made against the 20 principles of its Just Transition Strategy. The report seeks to demonstrate the impact that the 20 principles have had across the business, and how they have influenced SSE’s decision making and approach in the period since they were published in November 2020. The report can be accessed at sse.com/sustainability/just-transition.

Normalising a just transition

In April 2023, SSE held a multi-stakeholder event in London aimed at normalising the just transition within net zero transition plans and corporate climate discourse. Seeking to enhance accountability and bring the just transition from concept to action. The event was attended by a range of stakeholders, including academia, investors and peers. The event aimed at establishing a sense of collaboration and openness around a just transition and demonstrating SSE’s stewardship of its own transition to net zero and highlighting the business benefits that come from establishing the world’s first business strategy for a just transition.

ENGAGEMENT IN ACTION

Just transition documentary

In March 2023, SSE launched a short documentary which aims to bring the notion of a just transition to life. It features voices of SSE employees with experience of transitioning from high- to low-carbon work, supplemented by the perspectives of the Prospect trade union and conservation organisation, WWF. The film explains that a just transition is about protecting workers and communities in the face of substantial industrial change and that people must be at the centre of efforts to tackle climate and nature crises.

This documentary has been shared widely with stakeholders including trade unions, investors, and NGOs, and was also shown to over 1,660 employees. While it has been produced by SSE, the aim of the documentary is to inspire and provide a source of reference for stakeholders and other companies when understanding the importance of a just transition and what it means in the context of their sectors. The short documentary can be accessed at sse.com/sustainability/just-transition.
Committed to decent work and economic growth

Sharing the benefits from net zero

SSE is creating and sharing value with society by generating economic value, contributing to the public purse, and investing in local communities.

Contributing to GDP and supporting jobs

SSE is a major contributor to the UK and Irish economies and in 2022/23 it invested record amounts (£2.8bn in adjusted capital investment and expenditure) exceeding the profits it made over the same period. Under its revised Net Zero Acceleration Programme Plus, SSE has plans to invest £18bn in the five years to March 2027, equivalent to around £10m a day. This scale of investment carries with it a responsibility to ensure it is done in the right way, and the considerable value it generates is shared.

To understand its wider socio-economic contribution, SSE has commissioned professional services firm PwC to measure the value it adds to GDP and the jobs it supports across its home markets for the last 12 financial years. Over 2022/23, SSE contributed £6.04bn to UK GDP, including £2.23bn in Scotland, and €429m to Irish GDP. This represented a slight increase compared to 2021/22 figures, which were £5.98bn, £2.08bn and €417m respectively (adjusted for current prices). This means that over the past 10 years, SSE has contributed around £9.4bn to UK and Irish economies (in current prices).

Jobs supported in these countries fell from 47,130 in 2021/22 to 42,370 in 2022/23, due to a reduction in supply chain spend in Scotland as SSE’s Seagreen Offshore Wind Farm moved from construction to completion, with a corresponding decrease in procurement spend. SSE’s activities over 2022/23 supported 2.5 jobs for every person it directly employed. All of SSE’s economic contribution reports can be found at sse.com/sustainability.

Paying a fair share of tax

SSE considers the responsible payment of tax a core element of how it shares value with society. SSE is one of the UK’s biggest taxpayers, and in the 2022 PwC Total Tax Contribution survey was ranked 16th out of the 100 Group of Companies in terms of the taxes it pays.

Over 2022/23, SSE’s total tax contribution was £1.3bn, consisting of £549m taxes paid and £764m taxes collected. This compares to a total tax contribution of £0.9bn in 2021/22, consisting of £371m taxes paid and £569m taxes collected.

Of the taxes paid in 2022/23, £217m was in corporation tax, up from £70m the previous year as a result of the higher level of UK profits for the year.

Further increases in taxes paid in 2022/23 resulted due to higher levels of Climate Change Levy (CCL) being paid. The CCL is a tax charged on energy used by non-domestic customers to incentivise increased energy efficiency and carbon emissions reductions. This increase in CCL paid was due to fewer outages at SSE’s gas-fired power stations compared with the previous year.

Further information on SSE’s tax position over 2022/23 can be found on pages 91 and 237 to 239 of its Annual Report 2023.

Maintaining fair tax principles while expanding internationally

SSE was the first FTSE100 company to be Fair Tax accredited in 2014 and in 2022/23 it realised another milestone, becoming the first company to transition from the Fair Tax Foundation’s UK HQ Multinational accreditation to its new Global Multinational Business Standard. SSE remains a firm supporter of the Fair Tax Foundation and has welcomed its international focus and expansion believing that multinational corporations must pay regard and respect to the jurisdictions where economic activity is undertaken, and profits arise.

SSE took this step to purposefully demonstrate its ongoing commitment to upholding the principles of fair tax as it expands internationally. SSE remains committed to the transparency of its tax affairs and publishes an annual Talking Tax report with enhanced country-by-country tax disclosures alongside detail of SSE’s tax strategy. SSE’s Talking Tax reports can be found on sse.com/sustainability.

Creating lasting, local value

Investing in local communities

An integral part of a just transition is sharing value with local communities. SSE is one of the largest corporate grant givers in the UK and Ireland and, over 2022/23, it invested around £16.5m in communities across the UK and Ireland.

The majority of SSE’s community giving comes from its renewables business, which for over a decade has provided communities close to its assets with funding for local or regional projects. SSE Renewables currently operates 47 funds across the UK and Ireland, with an expected lifetime value of over £310m.

Over 2022/23, £10m was awarded through SSE Renewables’ community investment funds, up from £9.7m the previous year. This funding financed over 1,000 community projects which supported 136 local jobs, improvement to 286 community owned assets, 111 scholarships and 167 community projects which enhance local net zero ambitions.

£2.7m of this total investment was from SSE Renewables’ regional Sustainable Energy Development Fund, which granted its largest single award ever of £1m in November 2022 to the Highland Energy Efficiency Programme, to support households in extreme fuel poverty. Detailed disclosure on SSE Renewables’ community funding can be found on sserenewables.com/communities.

Around £1.4m was also awarded through SSER’s Resilient Communities Fund, which prioritises projects which protect the welfare of vulnerable members of the community in SSE’s network areas during significant emergency events.

CASE STUDY

SSE’s economic contribution

<table>
<thead>
<tr>
<th>Country</th>
<th>Contribution to GDP</th>
<th>Jobs supported</th>
<th>Taxes paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>£2.23bn</td>
<td>10,130</td>
<td>£53.8m</td>
</tr>
<tr>
<td>UK</td>
<td>£6.04bn</td>
<td>39,940</td>
<td>£502m</td>
</tr>
<tr>
<td>Ireland</td>
<td>€429</td>
<td>2,430</td>
<td>€53.8m</td>
</tr>
</tbody>
</table>

Further information on SSE’s tax position over 2022/23 can be found on pages 91 and 237 to 239 of its Annual Report 2023.
Committed to decent work and economic growth

With the significant scale of investment required in its network in the north of Scotland, SSE Transmission engages closely with all communities and stakeholders with an interest in its infrastructure developments. Some stakeholders have raised whether some form of community benefit funding might be an appropriate way to share in the value of these developments in addition to the other economic and employment opportunities they bring. SSE Transmission will continue to engage with Origem and its stakeholders to consider the potential for a legacy fund being created, particularly to support the next phase of its network expansion which is critical to powering change and meeting Scotland and the UK’s renewable energy targets.

SSE’s community investment programmes 2022/23

<table>
<thead>
<tr>
<th></th>
<th>Value awarded</th>
<th>Projects supported</th>
<th>Communities supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSE Renewables</td>
<td>£10m</td>
<td>1,050</td>
<td>165</td>
</tr>
<tr>
<td>Resilient community</td>
<td>£1.4m</td>
<td>110</td>
<td>104</td>
</tr>
</tbody>
</table>

ENGAGEMENT IN ACTION

Leaving a lasting legacy through the Beatrice Community Fund

The Beatrice Community Fund was the first offshore wind farm fund delivered by SSE Renewables and partners Red Rock Power Limited, the Renewables Infrastructure Group and Equitix. The £6m fund operated between 2017 and 2023 and has supported 361 local projects including creating 73 rural jobs and enhancing 64 community assets. An evaluation of the fund highlighted that 91% of projects supported are still in operation in the local areas and 100% of respondents would recommend offshore funds to other communities. A key success of the fund has been its agility with which it responded to local priorities and issues, including providing emergency funding during the coronavirus pandemic.

The fund has also safeguarded local assets such as the East Beach Bridge in Lossiemouth. In 2019 access to the local beach was closed for safety reasons and the Beatrice Community Fund provided emergency funding of £50,000 to Lossiemouth Community Development Trust to start a £1.8m infrastructure project to restore access. The beach is estimated to contribute £1.5m to the local economy each year.

A custodian of cultural heritage

SSE has played an integral role in the history of energy in the UK, with its roots in the hydro-electric revolution of the 1940s and 1950s in Scotland. It recognises the high cultural value its heritage has and employs an in-house heritage team which maintains SSE’s historical archives dating back to the early 1940s, ensuring important documents and artifacts are retained for historical record.

SSE’s commitment to cultural heritage is embedded as one of the 20 principles of its Just Transition Strategy, and in April 2023 it promised this principle through an art exhibition covering an important part of its cultural heritage at a multistakeholder just transition event (see page 66).

The art exhibition, titled “The Cloud Factory”, was the culmination of work over a couple of years, in which SSE’s Heritage team in conjunction with SSE Thermal supported the work of artists who had been documenting the decommissioning of SSE’s former Fiddler’s Ferry coal-fired power station in Warrington, England, which closed in 2020. Shaun Smyth and Lee Harrison were granted access to the site during the decommissioning process and, through Harrison’s photography and Smyth’s large-scale paintings, their aim was to convey the scale of the site and the significant impact Fiddler’s Ferry has had to the region and the local communities and workers.

Supporting good, green jobs

In a net zero world, all jobs will be green jobs. Through the transition, SSE seeks to develop its existing workforce simultaneously maintaining current skills whilst upskilling people for the future. Accessibility, inclusion, and diversity are key features of the modern workforce in a net zero world.

Creating quality jobs through investment in net zero

<table>
<thead>
<tr>
<th>Guaranteed fair work</th>
<th>Investing in a net zero workforce</th>
<th>Building an inclusive workforce</th>
<th>Valuing employee voice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring fair wages and predictable hours (see page 66)</td>
<td>Growing existing skills and talent (see page 68)</td>
<td>Building the future workforce (see page 69)</td>
<td>Listening to employees (see page 74)</td>
</tr>
<tr>
<td>Respecting fundamental human rights (see pages 75 to 76)</td>
<td>Measuring and understanding progress (see page 72)</td>
<td>Driving inclusion across all levels (see pages 71 to 73)</td>
<td>Working with employee representatives (see page 74)</td>
</tr>
</tbody>
</table>

Providing a safe and secure workplace

| Health, safety and wellbeing (see pages 75 to 77) | Ethical business culture (see page 77) | Speak up (whistleblowing) (see page 77) | |
|--------------------------------------------------|--------------------------------------|--------------------------------------| |

"SSE’s growth plan needs smart, talented people from all sorts of backgrounds and I am delighted we can offer attractive jobs, with good career prospects and a purpose that means employees are making a difference to the wider world."

John Stewart
Director of Human Resources
Guaranteeing fair work

SSE is firmly committed to creating a workplace that offers meaningful, long-term careers, with all employees treated with fairness and respect.

A framework for fair and decent work
SSE has a well-established framework for guaranteeing fair and decent work, which is focused on developing its existing workforce as well as investing in the future skills needed to deliver net zero. It does this whilst ensuring it creates a workplace which is inclusive for all. This framework is underpinned by fundamental principles defined by the International Labour Organisation (ILO) and the 10 principles of the UN Global Compact.

Paying a fair wage
Fair remuneration is a cornerstone of responsible employment and providing good jobs. SSE is actively involved in the living wage movement. Having been a real Living Wage accredited employer in the UK since 2013, it has also paid the Living Wage since 2013, it has also paid the Living Wage for the UK two months earlier than normal.

Foundation announced the new real Living Wage for the UK two months earlier than normal. 2022, therefore implementing the pay rise six months earlier than normal.

Depending on their salary, employees received either a 5% or 3% increase. Those on lower salaries received a higher percentage increase, so that the structure of the pay award prioritised helping those who are most affected by the rise in living costs.

This decision allowed SSE to support colleagues managing cost-of-living challenges earlier than the planned cost-of-living pay reviews which are applied in April each year.

In recognition of the cost-of-living pressures affecting its employees, on 1 October 2022 SSE brought forward part of its trade union negotiated cost of living increase for 2023, by awarding up to a 5% increase to all employees earning less than £100,000 annually.

ENGAGEMENT IN ACTION

Employee cost-of-living pay increase

In recognition of the cost-of-living pressures affecting its employees, on 1 October 2022 SSE brought forward part of its trade union negotiated cost of living increase for 2023, by awarding up to a 5% increase to all employees earning less than £100,000 annually.

Depending on their salary, employees received either a 5% or3%, increase. Those on lower salaries received a higher percentage increase, so that the structure of the pay award prioritised helping those who are most affected by the rise in living costs.

This decision allowed SSE to support colleagues managing cost-of-living challenges earlier than the planned cost-of-living pay reviews which are applied in April each year.

Respecting fundamental human rights
SSE has no tolerance of human rights abuse or modern slavery in its operations or supply chain and its efforts to prevent such abuses are centered on its Modern Slavery Action Plan. 2022/23 represented the final year of its three-year Plan and progress was made identifying and mitigating key risks, educating employees, ensuring robust due diligence, and collaborating with partners. SSE completed its fourth on-site assessment with modern slavery experts, Stronger Together and drew from their expertise in two targeted supply chain deep-dive assessments for projects operating in higher risk areas. A revised three-year Human Rights Strategy and Action Plan for the period 2023-26 has been developed. The strategy incorporates learnings from recent years, including on-site assessments, deep dive assessments, and gap analysis work carried out by external specialist. It also considers external benchmarks and requirements, and the UN Guiding Principles on Business and Human Rights. For more detail on SSE’s Human Rights Strategy and 2023-26 Action Plan see its Human Rights and Modern Slavery Statement 2023, which will be published later in 2023.

Investing in a workforce for net zero

With a decarbonised power sector by 2035 a stated ambition of governments, SSE’s focus is on delivery. The availability of a skilled workforce is now a core feature of that challenge to deliver the magnitude of infrastructure investment needed.

The right skills at the right time
The scale and speed of SSE’s investment programme requires many skilled people to implement it. Without planning ahead of time, there is a potential risk of skills shortages. This is true for SSE and the energy industry as a whole. The 2022 matriculates assessment of SSE’s social and environmental impacts identified, for the first time, skills as a highly material sustainability issue to be managed.

While workforce planning is a permanent management feature at SSE, in 2022/23 a deliberate review was undertaken to identify the specific skills and job roles required in the medium and long term to deliver large capital projects and support the ongoing operations and digitalisation of business activity. As a result of this work a paper on key skills will be presented to the Group Executive Committee twice yearly. While there is need for significant employee growth in SSE. It is also recognised that career development opportunities arise for SSE’s existing workforce too. To ensure this, SSE has developed a three-pronged approach which involves developing the existing workforce, building a pipeline of talent, and shaping the future workforce.

Creating jobs for net zero
Within SSE, at least 1,000 new jobs are expected to be created every year to 2025 with the potential for many thousands more in the years to 2032. Opportunities will be created across a range of roles, which will mean developing existing skills at the same time as creating new skill sets as technology changes. To fill these roles, SSE’s recruitment strategy seeks to bring new talent into the organisation immediately, at the same time as developing a longer-term pipeline to meet the skills needs of the future.

Total external recruitment in 2022/23

3,226

(2021/22: 2,290)

At 31 March 2023, SSE’s headcount was 12,180, up from 10,754 at 31 March 2022. This includes 100 employees in locations outside the UK and Ireland. To fill both new roles and vacancies, the total number of people recruited rose from 2,290 in 2021/22, to 3,226 in 2022/23. Furthermore, and in support of developing careers, 1,175 internal candidates changed roles across SSE in 2022/23, an increase of 30% from 2021/22.

While SSE expects to make a direct impact by employing many more people in its businesses through its growth plans, the scale of each of its development projects is expected to make wider impacts on local economies. For example, Dogger Bank Wind Farm, in construction, has already created or supported 1,000 UK jobs through its development. Many of these roles are in Yorkshire and associated with onshore construction works and around Port of Tyne from where the wind farm will be operated. Berwick Bank Wind Farm, an earlier stage development, has the potential to create around 450 direct, indirect and induced jobs in Scotland, and 9,300 in the UK. Keelby 3. SSE’s potential carbon capture plant could support around 250 local jobs, 320 jobs for the wider region of Yorkshire, the Humber, and East Midlands, and 560 national UK jobs on an annual basis over the station’s operational lifetime.

Statement 2023, which will be published later in 2023. See its Human Rights and Modern Slavery Rights Strategy and 2023-26 Action Plan for the period 2023-26 has

A revised three-year Human Rights Strategy and Action Plan for the period 2023-26 has been developed. The strategy incorporates learnings from recent years, including on-site assessments, deep dive assessments, and gap analysis work carried out by external specialist. It also considers external benchmarks and requirements, and the UN Guiding Principles on Business and Human Rights. For more detail on SSE’s Human Rights Strategy and 2023-26 Action Plan see its Human Rights and Modern Slavery Statement 2023, which will be published later in 2023.
Advocating for a national approach to energy skills development

The challenge of delivering a decarbonised power system over the next decade is one for the whole energy sector to meet. That requires an economy-level approach to the development of a workforce that is ready to exploit the arising job opportunities in energy. To support policy makers, SSE is proposing a suite of skills policy interventions that will help it, and the rest of the sector, to access the talent it requires.

- Create green energy training academies based on a collaborative public/private partnership model, that supports the development of core technical skills key to the growth of the energy sector.
- Establish high quality conversion programmes at scale, to support working people in high-carbon industries to transition into low-carbon industries, particularly for roles with projected skills shortages, supporting an economically-wide just transition.
- Provide funding for universities and colleges to increase employer partnership offerings in areas of high specialisms essential for net zero, such as HVDC and large capital project management.
- Invest, at scale, in the STEM curriculum encouraging children of all ages to gain an early understanding of the importance of careers in STEM.
- Modernise trainee and apprentice funding establishing greater flexibility in delivery models so the programmes provide incentives for the creation of sustainable, active jobs.
- Encourage upskilling of existing employees by extending funding support which also covers supply chain workers to meet projected skill shortages, as well as providing cost recovery incentives for upskilled trainees entering sustainable employment.
- Simplify work visa processes for areas of key skill shortages.
- Encourage innovation around inclusion and social mobility by supporting programmes that aim to make green jobs available to the widest possible audience.

Growing skills and talent

Development and training is especially important to both address skills gaps and provide the opportunity for existing employees to develop their careers in SSE. A skills gap analysis in 2020/21 led to targeted investment in a series of specific skills, from upskilling existing electrical joiners, to developing new roles in system planning to support smart grids. Simultaneously, SSE is working to understand the skills required for new technologies of the future, for jobs that may or may not yet exist, but which may be required to be implemented at pace to deliver net zero.

SSE has a well-established programme of learning and training for employees, recognising that continuous development is an important part of a fulfilling career. Over 2022/23 SSE invested £10.4m in learning, training, and development, representing nearly a 40% increase from investment the previous year.

In addition, the average number of training hours per full-time equivalent employee was 19.8 in 2021/22, a slight decrease from 20.7 the previous year. In 2022/23, 85.5% of SSE’s employees received some form of development over the year.

Developing leaders

SSE continues to take a comprehensive approach to developing leaders across the organisation to drive future success. This includes a range of initiatives that deliver feedback and measure performance, provide training and development opportunities, and encourage collaboration such as 360-degree feedback, personality assessments, performance metrics, and one-on-one coaching sessions.

The objective is to create a future leadership population that does the right thing, discovers future value, builds an inclusive team, reads the energy context and gets it done brilliantly. This defined Leadership Blueprint is reinforced through a range of initiatives that deliver leadership development over the year.

- Leadership Blueprint
- One-on-one coaching sessions
- 360-degree feedback
- Personality assessments
- Performance metrics

Investing in learning, training and development

£10.4m
(2022/23: £7.5m)

Average number of training hours per full-time equivalent employee

19.8
(2021/22: 20.7)

42
Representation of women on talent programmes in 2022/23

Building a pipeline of talent

Attracting diversity into SSE

SSE focuses on improving recruitment practices to ensure a more diverse range of people are aware of SSE’s opportunities and can join its workforce. SSE has continued with the process changes implemented over 2021/22, which included adjusting job adverts to ensure the language is inclusive and including happy to talk flexible working on all job adverts. SSE has also reviewed the format of job adverts to keep the essential requirements to key skills, remove unnecessary jargon, and provide contact details on adverts to support with candidate questions. SSE continued its focus on essential skills and strength-based recruitment, swapping technical skills for transferrable skills where possible, and continued its relationships with specialist recruitment platforms to help reach people with a wide range of backgrounds, skills, and requirements.

83%
Of SSE’s employees have the ability to work flexibly
(2022/23: 83%)

Investment in pipeline programmes

£12.8m
(2022/23: £9.8m)

Individuals on pipeline programmes

564
(2022/23: 470)

£12.8m from £9.8m in 2021/22. The number of people on SSE’s pipeline programmes (apprenticeships, technical skills trainee programmes, graduate programmes, conversion programmes and other pipeline programmes) has increased to 564 individuals in 2022/23 (2021/22: 470 individuals). Continued focus on recruiting from a more diverse talent pool for pipeline programmes also increased the proportion of women across all of these programmes, overall increasing to 21.5% over 2022/23 from 19% over 2021/22. For more information on SSE’s approach to increasing diversity in its workforce see page 73 and see its inclusion and Diversity Report 2023, available at sse.com/sustainability

Apprenticeships:

SSE offers apprenticeships across the UK and Ireland which provide opportunities to develop skills within a variety of technical and business roles. SSE has removed minimum academic requirements for entry, instead relying to attract individuals who can demonstrate key characteristics, which have been identified as enabling the employee to deliver the role.

Apprenticeships support SSE’s critical skills pipeline for the future and include areas such as Power Distribution, Electrical and Mechanical Engineering, Data Science, Procurement, Finance, Laboratory Technician, and Electrical Power Network Engineering. Five new programmes launched over 2022/23 including SEED (SSE Engineering Education and Development) which offers apprenticeships in Cranfield Construction Site Engineering and Occupational Health and Safety.

While there is still a long way to go to have gender balance in SSE’s apprenticeship programme, the proportion of women continues to have increased with this year remaining 14% up from 13% in 2021/22.

Apprenticeships over 2022/23

285
(2022/23: 280)

Trainee Engineers:

SSE’s trainee engineering programme provides the opportunity to undertake work-based learning whilst studying towards HNC or HND level qualifications in Electrical Engineering and Energy and Environmental Engineering. Trainees undertake work placements to put their education into practice and gain practical, hands-on experience. While the proportion of women participating in the trainee engineering programme had been increasing in recent years, in 2022/23 there was a disappointing fall from 23% in 2021/22 to 14.5% in 2022/23. This further reinforces the importance of early intervention within schools to ensure such programmes are attractive to young women as a serious career pathway.

Trainees over 2022/23

62
(2022/23: 43)

Graduates:

SSE’s graduate programme attracts, develops, and retains a pipeline of talent who are committed to deliver net zero solutions. The two-year programmes are delivered in all seven of SSE’s Business Units and graduates have the opportunity to work in areas including Energy Efficiency, Commercial, IT, HR, Business, Finance, and Project Management. The graduates gain practical hands-on experience, while building a valuable network and developing essential skills that support career advancement. The graduate engineering programmes have an additional benefit of achieving professional accreditation including chartership. Representation of women on SSE’s graduate programmes increased to 37% in 2022/23 compared with 23% in 2021/22.

Graduates over 2022/23

191
(2022/23: 124)

Employability programmes:

SSE’s employability programmes encourage social mobility and are designed to recruit talent from low-income communities and social demographics that may not have otherwise applied to work in the energy sector. The programmes include Barnardo’s Works, SSE Works (in Ireland), and Career Ready.

Over 2022/23 SSE’s long-standing Barnardo’s programme welcomed...
Providing local jobs through apprenticeships for net zero

SSE’s apprenticeships play an important role in attracting people into the Company at the beginning of their careers, but they can also be a valuable way to create local employment opportunities in rural areas. SSE’s 443MW Viking Onshore Wind Farm on Shetland, will be the UK’s largest wind farm when complete, in terms of annual output, and will help contribute towards the UK and Scotland’s net zero targets.

With the Shetland Islands having an important role in the history of oil and gas exploration in Scotland, Viking Onshore Wind Farm will support the transition of Shetland’s economy away from fossil fuels, giving young people an alternative, low-carbon career path to take. In 2022, four young people from Shetland took part in an apprenticeship scheme giving them an opportunity to build a career while staying in the communities they come from.

The apprentices are currently studying for one year at University of the Highlands and Islands (UHI) in Inverness as part of their training to become four of the first wind turbine technicians working at the Viking Onshore Wind Farm, when it enters operation in 2025. When the year ends, the apprentices will commence a three-year training course with Vestas, which has a 30+ year service and maintenance contract for the project, to give them the skills to help maintain the turbines.

Embracing the digital energy system of the future Digital and technology advancements are poised to transform the energy sector in the UK, bringing about significant changes and unlocking new opportunities. From smart grids, energy storage, and energy efficiency to decentralised energy generation and energy sharing, technology will significantly impact the essential skills of the energy sector’s workforce.

As SSE strives to become a data driven organisation it is essential all employees understand data and are equipped with the skills to work with data effectively. Therefore as part of SSE’s Corporate Digital Programme to ensure everyone has the right knowledge, skills, and tools to embrace digital technology, from broad digital knowledge to tool-specific technical training, a digital skills framework is being designed with six critical pillars: Digital Confidence and Productivity; Digital Communication and Collaboration; Handling Data Information and Content; Digital Ways of Working; Digital Creation, Problem Solving and Innovation; and Being Safe and Legal Online. In addition, learning pathways are being built and a gap assessment is being undertaken to identify resources required.

Building an inclusive workforce

The innovative solutions required to deliver net zero need a workforce with diverse perspectives, different experiences and new skills.

A strategy to drive inclusion

SSE’s inclusion and Diversity Strategy, launched in 2021, builds on the inclusion and diversity initiatives that SSE has been undertaking since 2014. It is framed on four pillars: Ambition, Education and Development; Inclusive Processes, and Employee Voice.

The strategy addresses inclusion and diversity at all levels of the business, as well as considering the wider sector and societal impacts. It aims to drive change at the most senior levels, ensure everyone is included by listening to diverse employee voices, and seeks to welcome all into SSE.

Increasing transparency around inclusion and diversity

Because of the strategic significance of building a modern, inclusive and diverse workforce, and in addition to key disclosures in its Annual Report and Sustainability Report, in June 2023 SSE published its second Inclusion and Diversity Report, which provides comprehensive information around SSE’s Inclusion and Diversity Strategy and the progress against it. This enhanced transparency ensures that SSE is accountable to its stakeholders on its actions and performance.

For further information around SSE’s approach to inclusion and diversity over 2022/23, the actions it is taking to drive improvements and plans for the coming years, see SSE’s Inclusion and Diversity Report 2023, available at [sse.com/sustainability].

Driving inclusion across all levels

Progressing gender balance in senior leadership

SSE has set gender ambitions for senior leaders in line with the FTSE Women Leaders Review. These targets, and performance against them, are outlined in the table above. Over 2022/23, SSE made progress in increasing representation of women amongst the Group Executive Committee and its direct reports, as well as in its leadership group. Female representation on the Board is currently 42%, following changes to the Board which took effect at the beginning of the year.

Developing more inclusive leaders

SSE’s leadership programmes are designed to build leadership confidence and raise awareness to drive an inclusive workplace from the top:

- SSE’s Igniting Inclusion Programme supports managing directors and business unit executive committees to learn about three key diversity inclusion topics: the Neuroscience of inclusion and diversity, Growth Mindset, and Psychological Safety. See SSE’s 2023 Inclusion and Diversity Report for more details.
- SSE’s Leadership Blueprint captures the essence of SSE’s leadership culture, its strong values, and the behaviours required to innovate and solve business challenges. It is used during recruitment, in leadership and management development, and in performance reviews. Over 2022/23, inclusivity was embedded throughout the blueprint ensuring that leaders build a diverse and inclusive culture.

Ensuring everyone is included

SSE has a range of initiatives to drive diversity throughout its company at all levels seeking to listen to its employees and understand the lived experience of its culture of inclusion. This is instructive to know what more can be done to improve that experience for everyone. One way SSE does this is through its Belonging in SSE communities. Over 2,000 employees have joined a community, which include: Working Families, LGBTQIA+ , Menopause, Armed Forces, Ethnicity and Culture, Disability, Neurodiversity, Health and Wellbeing, and Gender Balance. See SSE’s Inclusion and Diversity Report 2023 for detailed information on the Belonging in SSE communities and their action plans to drive improvement.

CASE STUDY

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Committed to decent work and economic growth

Measuring and understanding progress

UK gender pay gap performance

Between 2021/22 and 2022/23, SSE saw a positive trend in its headline UK gender pay gap statistics. SSE’s gender pay gap reduced from 18.0% at 5 April 2022 to 15.3% at 5 April 2023. SSE’s mean and median gender pay gap performance over the last five years, can be seen in Figure 2, showing a continuous positive trend over this period. While SSE’s mean gender pay gap performance is more favourable than the median, SSE believes that the median data is a more accurate reflection of SSE’s UK gender pay gap.

The reduction in SSE’s UK median gender pay gap between 2021/22 and 2022/23 has been driven by three main contributing factors:

- **Interim cost-of-living pay increase**: SSE brought forward part of its trade union negotiated cost of living increase for 2023 (full details can be found on page 66), the structure of which prioritised those on lower salaries. At SSE, representation of women is highest in the lower and lower-middle pay quartiles, resulting in a higher percentage of women receiving a 5% pay award. However, the full impact of the 2022/23 pay award on SSE’s gender pay gap will not be fully understood until the second part of the award is made for full-year in the first quarter of 2023/24 (backdated to 1 April 2023).

- **Salary uplift for employees on Joint Agreement contracts**: SSE introduced a new skill-based Pay Progression model in 2021, which saw employees’ salaries being mapped according to their skill level. This resulted in many employees receiving salary uplifts, mainly those in the lower pay quartile. As SSE has higher female representation in this quartile, this meant a high number of women received a pay increase. Over 2022/23, the positive impact of this new pay model on the gender pay gap has continued with a slightly higher proportion of female employees progressing through the pay progression framework.

- **Increasing representation of women in high-paid roles**: Over 2022/23, SSE saw an increase in women represented in high-paid roles, classed as those earning over £100,000 per year, which exceeded the increase in men represented in these roles over the same period. Between 2022 and 2023, there was also improvement in its UK bonus gender pay gap reducing from 17.6% at 5 April 2022 to 14.7% at 5 April 2023. SSE’s bonus applies to a subset of employees and by its nature will fluctuate year-on-year subject to corporate, business, and personal performance. An annual incentive accounts for around 60% of the total value of the bonus. A smaller and more senior population also participate in SSE’s longer term share arrangements which account for a further 25% of the overall value.

Understanding the diversity of SSE’s workforce

Gaining deeper insight into the diversity of SSE’s workforce requires the voluntary disclosure of diversity information including ethnicity, sexual orientation, and disabilities. This data is collected anonymously and as of 31 March 2023, SSE had an employee disclosure rate of 39% of the total employee population. Increasing employees’ voluntary disclosure of their diversity data, even if they select ‘prefer not to say’, is essential for SSE to set develop strategies, establish ambitions and gain learnings that will increase its workforce diversity.

Further detailed breakdown of SSE’s workforce diversity data can be found in its Inclusion and Diversity Report 2023, available at sse.com/sustainability.

Table 2: SSE’s wider diversity data at 31 March in each year*

<table>
<thead>
<tr>
<th>Diversity category</th>
<th>Year</th>
<th>Ambition (％ employees)</th>
<th>2022/23 (％ employees)</th>
<th>2021/22 (％ employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>2030</td>
<td>8</td>
<td>8.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Ethnic Minority</td>
<td>2030</td>
<td>15</td>
<td>8.1</td>
<td>6.3</td>
</tr>
<tr>
<td>LGBTQIA+</td>
<td>2030</td>
<td>8</td>
<td>3.8</td>
<td>3.6</td>
</tr>
</tbody>
</table>

*Diversity data is disclosed by employees on a voluntary basis. SSE is working to encourage more employees to disclose their data, so that it can improve external disclosure as it becomes feasible to do so.

Increasing transparency to drive improvement

For a company to improve the diversity of its workforce it needs to have a clear understanding of the composition of its current workforce. This provides the evidence base on which strategies are constructed, ambitions are set and progress is tracked.

The right to privacy is important and, as a result, this wider diversity data is disclosed by employees on a voluntary basis. SSE is working to encourage more employees to disclose their data, so that it can improve external disclosure as it becomes feasible to do so.

In March 2023, SSE launched its revised mandatory inclusion and diversity e-learning training. All employees are required to complete this training annually, alongside essential subjects such as anti-fraud, financial crime, and cyber security. Aligning with SSE’s Igniting Inclusion programme, the training covers allyship, privilege, and microaggressions, providing learners with the skills and confidence to become supportive colleagues, increase diversity, and comply with legal requirements.

As part of this course, SSE has also introduced the functionality to capture voluntary diversity data from employees. Employees are encouraged to voluntarily submit their data or select ‘prefer not to say’, providing the opportunity to submit feedback on the rationale behind their choice. This approach keeps disclosure voluntary whilst ensuring all employees are aware of how to disclose their data. It aims to better understand why people may not be sharing data at present, so SSE can work to create a culture where everyone feels comfortable disclosing their diversity data.

SSE’s 2023 UK gender pay gap performance

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>UK gender pay gap</td>
<td>15.3% (2022: 18.0%)</td>
<td>12.1% (2022: 13.2%)</td>
</tr>
<tr>
<td>UK bonus gender pay gap</td>
<td>14.7% (2022: 17.6%)</td>
<td>44.3% (2022: 45.9%)</td>
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<tbody>
<tr>
<td>SSE’s UK median GPG</td>
<td>18.4 (2019: 18.3)</td>
<td>18.4 (2019: 18.3)</td>
</tr>
<tr>
<td>SSE’s UK mean GPG</td>
<td>15.3</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Figure 2: SSE’s mean and median UK gender pay gap (GPG) between 2019 and 2023

DILEMMA

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Valuing employee voice

Actively listening to and incorporating the employee voice, to respond to employee needs, is recognised by SSE as an important part of decision-making and strategy.

SSE’s all-employee survey

Every year, SSE gives employees the opportunity to share their views on a range of topics through an all-employee survey. An in-depth survey is carried out every two years and a shorter pulse survey takes place on alternate years. 79% of employees provided feedback in the 2022 pulse survey, which resulted in a Sustainable Engagement Score of 84% - up from 82% last year. Two questions in the survey focus on SSE’s strategy to support net zero. 93% of employees said they are committed to SSE’s vision to be a leading energy company in a net zero world and 73% said they know how they can contribute to SSE’s transition to net zero.

The survey also includes questions on work life balance, recognising the importance of measuring the impact of work on quality of life. In 2022, 85% of employees said that they were able to balance work and personal commitments while 94% said that they were able to work well with team members who work differently to them.

A range of other questions from the survey are referenced throughout this report where relevant.

Reviewing the employee value proposition

In a tight labour market with strong competition for energy-related skills, SSE seeks to be an employer of choice. In 2022/23, SSE reviewed its employee value proposition to ensure that all new and prospective parents at SSE feel supported, regardless of personal or family circumstances and where they are on the journey to becoming a parent. Full details of SSE’s family leave offering can be found in its Inclusion and Diversity Report 2023.

ENGAGEMENT IN ACTION

Enhancing family leave to offer additional support

Core to SSE’s enhanced employee value proposition is the improvement of its family leave offering. Complementing SSE’s existing package to new parents, the new family policy includes: an additional seven weeks’ paid leave for partners of parents who take maternity or adoption leave; two weeks’ leave at full pay for employees who suffer a pregnancy loss, including partners; up to 2 weeks’ leave at full pay for those undertaking fertility treatment.

While previous enhancements to family policies focused on additional paid leave for primary carers, the enhancements made over 2022/23 aimed to ensure that all new and prospective parents at SSE feel supported, regardless of personal or family circumstances and where they are on the journey to becoming a parent. Full details of SSE’s family leave offering can be found in its Inclusion and Diversity Report 2023.

SSE’s collective bargaining agreements, elected employee representatives are in place and an informal engagement group, the FC Forum, also meets regularly with representatives from the Trade Unions to discuss any matters concerning their Personal Contract members.

Through the Joint Negotiating and Consultative Committee, local Joint Business Councils Committee’s and focused working groups such as the Policy Review Group and the Health Safety and Environment Committee, employee representatives have the opportunity to influence decision making and strategy. Over 2022/23, examples of decisions influenced by this engagement included: SSE’s new family leave policies launched in 2022, which were developed in collaboration with designated areas of focus identified through analysis of feedback received in the 2022 all-employee survey, through employee and team-bench marking exercises, and engagement with Trade Union partners through the SSE Policy Review Group. The review led to improvements in a number of areas, including wellbeing services (see page 76) and SSE’s family leave offering (see case study on this page).

New Non-Executive director for employees engagement

To ensure Board-level direct engagement with employees, an appointed non-executive director of the Board has responsibility for engagement. As reported previously and in line with succession plans, Daine Sue Bruce stepped down from the role of Non-Executive Director for Employee Engagement in early 2022. Lady Elisabeth Anson joined the Board from 1 April 2023, bringing rich experience in assimilating and interpreting views and translating findings into a required course of action.

Working with employee representatives

Everyone in SSE has the fundamental right to freedom of association and to join a trade union. SSE has four recognized trade union partners (Unite, Prospect, Unison and GMB). The Company has established an effective network of employee representation forums, with the principal forum being the Joint Negotiation and Consultation Committee, and various sub forums with delegated responsibility, including the Joint Business Committees in each business area, the Joint Health, Safety and Environment Committee, the Policy Review Group and the Pay Sub-Group.

For employees who are not covered by SSE’s collective bargaining agreements, elected employee representatives are in place and an informal engagement group, the FC Forum, also meets regularly with representatives from the Trade Unions to discuss any matters concerning their Personal Contract members.

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Providing a safe and secure workplace

SSE is committed to providing a workplace with a healthy business culture where employees feel confident to speak up against wrongdoing and where safety underpins everything SSE does.

The safety of everyone

Setting a strong safety culture

Everyone at SSE operates to the license “If it’s not safe, we don’t do it”. SSE’s safety strategy is focused on two goals:

- We have no life changing incidents or major safety, health and environment incidents; and
- We are healthy and happy at work.

These goals are reinforced by SSE’s Safety Family culture which sets the tone of its safety culture.

SSE has a well-established governance framework which underpins its top priority: the safety of everyone who works for and encounters the Company. SSE’s safety management system is certified to the internationally recognised standard ISO 45001 Occupational Health and Safety Management System (certificates available on sse.com/sustainability).

A challenging year of performance

SSE measures overall safety performance using the Recordable Injury Rate (TRIR) for employees and contractors. The rate for 2022/23 for employees and contractors combined was 0.19 per 100,000 hours worked, an increase from 0.17 the previous year. This safety performance is in the context of the tragic fatality of one of SSE’s contractors’ employees, Liam Macdonald.

Compared to the year before, 2022/23 saw a significant increase in construction related incidents associated with SSE’s record year of investment, which was a contributing factor to the rise in TRIR. SSE has established a programme of action to bring about improvements in contractor safety performance, and has set separate TRIR targets for 2023/24 for contractors and direct employees, of 0.31 and 0.11 respectively. Considering the increased activities and workload within all Business Units, SSE expects that these will be challenging targets, but believes they are achievable. More information on contractor safety can be found on page 76.

The concept of ‘Safe Days’ is also used to measure the number of days in which there are no minor, serious, or major safety incidents; serious or major environmental incidents; or any incident with high potential for harm to people or the environment. 255 Safe Days were achieved during 2022/23, a decrease of the 276 safe days recorded in the year before.

In addition to these core metrics, SSE monitors specific types of safety incident including road traffic collisions and number of people injured. The level of engagement in a healthy safety culture is monitored through targeted questions in an annual all-employee engagement survey.

Table 3: Total Recordable Injury Rates for SSE’s employees and contractors

<table>
<thead>
<tr>
<th></th>
<th>Per 100,000 hours worked</th>
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<tbody>
<tr>
<td><strong>2022/23</strong></td>
<td></td>
</tr>
<tr>
<td>Total Recordable Injury Rate – employees</td>
<td>0.19</td>
</tr>
<tr>
<td>Total Recordable Injury Rate – contractors</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>2021/22</strong></td>
<td></td>
</tr>
<tr>
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DILEMMA

Upholding safety standards as contractor hours worked increases

SSE recognises that the significant surge in investment and construction required to achieve its business goals and the associated increase in contractor hours worked represents a higher-risk environment than for SSE’s operational activity. In 2022/23, SSE’s contractor TRIR increased slightly compared to 2021/22 performance (see table 3) and tragically, there was a contractor fatality on Shetland in June 2022.

In order to ensure that the necessary rigour and support is in place for its contract partners, SSE has formed a new central Contractor Safety Team supported by dedicated Contractor Safety, Health and Environment (SHE) Managers and Assurance Auditors to improve contractor safety performance.

CASE STUDY

Immersive Training

SSE continually challenges itself on how to keep colleagues and contract partners engaged on safety. Building on an already strong safety culture, this year and as part of a refresh and re-energisation programme for SHE, SSE will be rolling out a new Immersive Training programme. The programme, which requires significant investment, is designed to evolve a much deeper level of recognition for what happens when something goes wrong.

Following a successful pilot in 2022, the one-day training sessions will take place in two established training centers owned and run by SSE’s contract partners in London and Immingham. A third, due to open later in 2022/23 in Perth, will be owned and run by SSE. SSE will send all employees and some contract partners who undertake operational roles through this one-day immersive experience.

The training which is highly interactive and thought provoking, equips attendees with the right mindset, skill set and tool set to ensure that everyone gets home safe.

Feedback from the pilot sessions has been very positive and for those who have attended, has resulted in a significant increase in confidence in challenging unsafe behavior and highlighting risks.

Focus on wellbeing

Recognising the impact of the pandemic and the cost-of-living crisis on employees’ health, SSE made employee wellbeing a priority in 2022/23. Building on a strong foundation of existing wellbeing benefits, SSE introduced several new and enhanced benefits in 2022/23. For example, the We Care Health App through which employees and their immediate families can access 24/7 GP video consultations and support on physical and mental health issues, general wellbeing and financial and legal matters. Employees in Ireland can receive similar support through SSE’s partnerships with VHI Healthcare.

SSE also launched a pilot scheme in partnership with the British Heart Foundation providing employees with free health assessments. The service was accessed by over 150 colleagues in 2022/23 and SSE plans to make it more widely available in 2023/24.

For further information on SSE’s new and enhanced wellbeing benefits, see SSE’s Annual Report 2023, available at sse.com/sustainability.

Embedding a healthy business culture

Doing the right thing

SSE has well established processes and procedures to embed a healthy business culture at all levels of its business, to support people to do the right thing. SSE’s Doing The Right Thing guide to good business ethics applies to all SSE’s employees as well as people employed by other organisations to work on SSE’s behalf, and sets out clearly the behaviours and standards expected, which are underpinned by SSE’s values. The guide covers a wide range of topics, including how to raise concerns about wrongdoing, cyber security, fair competition, transparency in the wholesale energy market, preventing corruption and financial crime and engagement with politicians and regulators.

The ‘Doing The Right Thing’ guide draws from SSE’s 19 Group Policies and sets out how these principles and values are translated into SSE’s activities, in a way that is appropriate for the current business environment. The policies also detail how these principles and values are translated into SSE’s activities. For example, SSE’s ‘Doing the right thing’ policy is reviewed annually and the Board’s five Speak Up sub-committees.

Anyone who suspects wrongdoing at SSE can speak up through both internal and external channels. Incidents of suspected wrongdoing can be reported internally through line managers, nominated internal Speak Up contacts and the Board’s five sub-committees. Employees who feel this route is not possible can report incidents in a safe and secure way externally, through an independent whistleblowing channel hosted by Safecall, with the option to report anonymously. Details for how to report wrongdoing through all of these channels is made publicly available through SSE’s ‘Doing the right thing’ employee guide.

Creating conditions to speak up

A healthy business culture is one where everyone feels able to speak up in the event of wrongdoing. People that work for SSE, or on its behalf, are encouraged to speak up if they suspect or witness wrongdoing and are protected from retribution.

To ensure a consistent standard across SSE’s workforce of its responsibilities in relation to good business ethics, SSE also has a suite of mandatory ethics and compliance training modules. This includes three modules which employees must complete annually and Fraud Awareness, Bribery and Anti-Corruption, Anti-Money Laundering and Financial Sanctions and Inclusion and Diversity, which all employees must complete bi-annually.

SSE uses multiple sources to test the strength of its business culture and understand how this is embraced by employees. One of the core tools is SSE’s cultural dashboard which provides a health check, comprising data covering people metrics and performance metrics under cultural strands, and which is reviewed by the Board twice annually. More information around the Board’s focus on culture and full details of SSE’s cultural dashboard, can be found on pages L17 and L38 of SSE’s Annual Report 2023.

A detailed breakdown of the incidents reported, the topics they cover and outcome of investigations over 2022/23, along with more information on SSE’s Speak Up Aftercare Programme, can be found on page 59 of SSE’s Annual Report 2023.

SSE’s Group Whistleblowing Policy is available publicly on sse.com/sustainability and the effectiveness of SSE’s whistleblowing arrangements are reviewed twice yearly by the Group Executive Committee and the Board.
Protecting and restoring the natural environment

The depletion of nature is posing a significant risk to the health of our communities and economy. SSE has a responsibility, where its business activities interact with the natural environment, to both prevent harm and restore depleted ecosystems.

While the greatest threat to nature is from climate change, ecosystems and biodiversity are affected by human behaviour in other ways too. Overuse of resources, land encroachment and pollution are combining with climate change to create a natural environment emergency that is described as being as profound to human life as global warming. SSE operates in places that are home to a variety of valuable ecosystems and habitats. Its environment strategy is designed to ensure that environmental impacts are considered throughout SSE’s business activities and are carefully managed.
Protecting and restoring the natural environment

Performance summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Unit</th>
<th>2022/23</th>
<th>2021/22</th>
<th>2020/21</th>
</tr>
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<tbody>
<tr>
<td>Waste</td>
<td>Total waste produced</td>
<td>Tonnes</td>
<td>6,063</td>
<td>5,287</td>
<td>2,321</td>
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<tr>
<td></td>
<td>Proportion of total waste</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Sent to landfill</td>
<td>%</td>
<td>5</td>
<td>12</td>
<td>9</td>
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<tr>
<td></td>
<td>Processed as energy from waste</td>
<td>%</td>
<td>29</td>
<td>25</td>
<td>55</td>
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<tr>
<td></td>
<td>Recycled</td>
<td>%</td>
<td>62</td>
<td>59</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Composted/sent to anaerobic digestion</td>
<td>%</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<td></td>
<td>Treated</td>
<td>%</td>
<td>2</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Air Emissions</td>
<td>Sulphur dioxide (SO2) – thermal generation</td>
<td>Tonnes</td>
<td>144.4</td>
<td>147.8</td>
<td>54.9</td>
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<td></td>
<td>Nitrogen oxide (NOx) – thermal generation</td>
<td>Tonnes</td>
<td>1,336</td>
<td>1,023</td>
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<td></td>
<td>Sulphur hexafluoride (SF6) – thermal generation and electricity transmission and distribution activities</td>
<td>kg</td>
<td>424</td>
<td>305</td>
<td>295</td>
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<tr>
<td>Environmental Management</td>
<td>Relevant SSE operations covered by ISO14001 by reported revenue</td>
<td></td>
<td>100</td>
<td>61</td>
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<tr>
<td></td>
<td>Number of major incidents a</td>
<td></td>
<td>1</td>
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<tr>
<td></td>
<td>Number of serious incidents b</td>
<td></td>
<td>31</td>
<td>14</td>
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<tr>
<td></td>
<td>Number of minor incidents c</td>
<td></td>
<td>77</td>
<td>60</td>
<td>52</td>
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<tr>
<td></td>
<td>Environmental prosecutions and civil penalties d</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Permit/licence breach e</td>
<td></td>
<td>9</td>
<td>7</td>
<td>4</td>
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<tr>
<td>Resource Use</td>
<td>Total water abstracted</td>
<td>Million m³</td>
<td>23,354</td>
<td>23,896</td>
<td>26,032</td>
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<td></td>
<td>Total water abstracted (ex. hydro generation)</td>
<td>Million m³</td>
<td>731</td>
<td>779</td>
<td>832</td>
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<tr>
<td></td>
<td>Freshwater abstracted (rivers and groundwater) (ex. hydro generation)</td>
<td>Million m³</td>
<td>2.2</td>
<td>1.9</td>
<td>1.36</td>
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<tr>
<td></td>
<td>Total water returned</td>
<td>Million m³</td>
<td>23,353</td>
<td>23,895</td>
<td>26,028</td>
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<tr>
<td></td>
<td>Total water consumed</td>
<td>Million m³</td>
<td>1.4</td>
<td>1.38</td>
<td>3.9</td>
</tr>
</tbody>
</table>

(A) This data is subject to external independent limited assurance by PricewaterhouseCoopers LLP (PwC). For the results of that assurance, see PwC’s assurance report and SSE’s 2023 Reporting Criteria on sse.com/sustainability.

(B) This data was subject to external independent assurance in 2022. The Limited Assurance Report can be found in SSE’s Sustainability Report 2022, available at sse.com/about-sse.

Effective environment strategy, management and governance

SSE’s environment strategy provides a framework for SSE to manage and mitigate impacts to terrestrial, freshwater and marine ecosystems, and build a business that uses resources efficiently and embraces the principles of a circular economy.

SSE’s environment strategy

Whilst SSE’s GHG emissions are its most material impact, it also has a wider role to carefully manage its impact on the natural world.

SSE’s environment strategy considers wider environmental impacts under three pillars inspired, in part, by the UN Sustainable Development Goals (SDGs). The core pillars are: environmental management and governance; responsible consumption and production; and, the natural environment. The strategy provides a framework to engage internal and external stakeholders, including SSE, accountable for performance. SSE has set Group-wide environment goals, targets and indicators to measure success. Supporting these are Business Unit specific goals and management plans, as each of its businesses have different interactions with, and impacts on, the environment.

Effective environmental governance and management

SSE’s environment strategy is governed at both the Executive and Board level. The SSE’s Environment, Health and Environment Advisory Committee (SHEAC) advise and the Safety, Sustainability, Health and Environment Advisory Committee (SSHEAC) and have oversight of environmental matters. SSE also became a corporate partner of the Institute of Environmental Management and Assessment (IEMA) supporting the professional development of relevant employees and promoting collaboration on environmental matters.

Monitoring environmental performance

The number of environmental incidents rose significantly in 2022/23, increasing to 109 compared to 84 the previous year. This was in part due to improved reporting of incidents by operational teams during the year as well as the increased growth in business unit activity.

To review, assess and identify opportunities to improve environmental performance, SSE will conduct a series of deep dives, alongside its contractors, across its main areas of environmental risk (including fluid filled cables, SF6 leakage, silt run off during construction projects and oil related incidents and spills). The results of this work will inform and improve processes and controls to ensure that performance improves for the future.

The number of environmental permit breaches as a result of SSE’s activities totalled nine, compared to seven incidents in 2021/22. For the first time since 2018/19, SSE recorded one major incident, related to SF6 at SSE’s substation project in Alyth which led to the release of 6.131g of SF6 gas to the atmosphere. A breakdown of environmental incidents by severity category can be found on page 80.
Protecting and restoring the natural environment

Understanding nature impacts and dependencies

SSE operates in some of the UK and Ireland’s least populated places, home to a wide variety of valuable ecosystems and habitats. Measurable, science-based data will be key to ensuring nature impacts and dependencies are understood and integrated into decision making.

Working to meet biodiversity targets

The ability to quantify biodiversity is key to how we better understand our impacts and identify how we continually improve our approach to developing and operating our assets. Due to the varied nature of locations and geographical locations, approaches are continually evolving and aligning with emerging recommendations and best practice.

To target enhanced value for nature, SSE has made a commitment to achieve biodiversity net gain on its large, onshore, capital projects. Recognising that this is a complex target to achieve, it is specifically working to ensure that all projects consented from 2023 onwards achieve no ‘net loss’ in biodiversity, and for those projects consented after 2025, to achieve ‘net gain’.

In preparation to monitor and report against the ‘net loss’ in biodiversity target this year, several SSE business units have been developing methods to measure and baseline their biodiversity units. This Biodiversity Net Gain (BNG) approach has been embedded in SSE’s electricity transmission business, through the development of its own BNG toolkit and SSE’s renewables business has further adapted the toolkit for its business needs (see case study).

Improving nature-related disclosures

In preparation of the launch of the Taskforce on Nature-related Financial Disclosures (TNFD) in late 2023, SSE has established a TNFD working group. Consisting of members of SSE’s Sustainability, Environmental and Finance teams, the group will prepare SSE’s biodiversity-related governance, strategy, risk management, and metrics disclosure ahead of the publishing of the Sustainability Report 2023/24. SSE recognises that next year will be its first in disclosing information guided by the TNFD requirements and accepts that it may not meet all the recommended criteria during its first year of disclosure.

Similar to how SSE has developed its TCFD reporting, improvements to disclosures will be made with each future iteration of SSE’s Sustainability Report, to ensure complete and robust reporting.

The next frontier: measuring marine and intertidal biodiversity

While the methods for confidently enhancing the value of nature on land are well understood by SSE, measuring and monitoring marine biodiversity, either intertidal or within the ocean environment, poses different challenges and is a key area of focus for the future. As part of its efforts to connect Scotland’s

CASE STUDY

Delivering Biodiversity Net Gain in development projects

Every development site has an intrinsic ‘biodiversity value’, which is determined by a wide range of factors including the type, condition and distinctiveness of the habitat. By quantifying the biodiversity value of a site pre-and post-development, the impact of the development on biodiversity value, whether positive or negative, can be understood. Importantly, this provides insight into the most effective ways of mitigating biodiversity losses and maximising biodiversity gains.

To achieve the goal of leaving the natural environment in a measurably better state than it was found, SSE Transmission initially developed a project-level toolkit to quantify pre- and post-development biodiversity value, alongside a site optioneering toolkit to model the impact on biodiversity from different site decisions. The toolkits have now been applied to a number of new developments including the Kintore substation in Aberdeenshire, HVDC switching station at Noss in Caithness and as part of the development of a new substation and overhead line upgrades at Rutherglen.

These toolkits, based on the Defra Metric (which is now at version 4.0) used in England, were then further developed by SSE Renewables over 2022/23 to recognise the typical habitat types, in particular peatland, encountered by SSE Renewables in developing large-scale onshore assets predominately in Scotland and Ireland. To support collaboration and encourage transparent decision making, SSE Renewables published comprehensive user guides in its ‘Positive for the Planet’ report. In this report, SSE Renewables outlined its 10-point plan for Biodiversity Net Gain.

The toolkits have been used for the proposed Orkney electrification project, where they informed the routeing of the new transmission, offshore wind farms, areas to avoid and areas to enhance biodiversity metrics. The research is underway into methods for better monitoring of seabirds and the development of statistical tools to quantify seabird values.

An example of collaboration on marine biodiversity is SSE Renewables’ work with Orkney Skate Trust. SSE Renewables is providing funding to support the Trust’s research work to survey the seabed that will be used for the proposed Orkney transmission connection. The research will collect and share invaluable data on the current condition of the seabed and the population of flipper skate.

“Our biodiversity net gain toolkits – which we have made open source – allow us to transparently quantify the progress we’re making to improve the natural environment on our onshore sites. This means we are building the renewables assets needed for net zero, while leaving the biodiversity at our sites in a measurably better state – tackling both the climate and nature emergencies, hand-in-hand.”

Kate Wallace Lockhart
Head of Sustainability,
SSE Renewables

remote islands to the national grid and progress vital reinforcements for future offshore renewable wind projects.

SSEN Transmission is working with environmental groups to enhance the collective understanding of the wider marine environment and to recognise the potential impacts that such offshore projects may bring to the submarine environment. In doing so, SSE will be able to identify actions to protect and restore Scotland’s marine species and habitats.

A broad array of industry collaborations are seeking to develop knowledge and understanding of cumulative environmental impacts from offshore wind and the interaction between species affected by offshore wind farms. Research is underway into methods for better monitoring of seabirds and the development of an environmental platform collating species data from the variety of surveys being undertaken.

The core of this collaboration is being undertaken in Scotland and the UK. To support shared learning at an international level, SSE Renewables has joined the UN Global Compact’s Offshore Wind and Marine Spatial Planning Steering Group, created through the Ocean Stewardship Coalition, which runs a series of ‘spin-off’ projects to quickly map existing initiatives and develop shared policy asks from offshore wind developers, academia, UN bodies and other institutions.

Finally, SSE Renewables is pursuing wider partnership opportunities with key conservation and research organisations to drive development of innovative approaches to measure marine and coastal biodiversity. This includes the adoption of artificial intelligence for species monitoring and exploring the potential for ‘ecological digital twins’ to better understand the interaction between species and our assets.

More information on SSE’s approach to biodiversity can be found in SSE’s Annual Biodiversity Report, available at sse.com/sustainability.

The report highlights the work SSE has undertaken to protect and enhance biodiversity, contribute to biodiversity research and knowledge, and connect people with the natural world.
Protecting and restoring the natural environment

Enhancing the natural environment

SSE supports the conservation, restoration and enhancement of the natural environment, and promotes the integration of amenity, ecosystem, and biodiversity improvement into business activities.

Conserving and restoring valuable carbon stores

SSE implements best practice measures to conserve, restore and enhance the UK and Ireland’s habitats and species. Where SSE’s operations interact with the natural environment, it strives to mitigate risks and conflicts, wherever possible, to deliver biodiversity enhancement in line with its policy and legal requirements.

The strategic role of nature within the ED2 Business Plan

Within SSE Distribution’s 2023-2025 business plan, approved by Ofgem in December 2022, the role of nature has, for the first time, been identified as both creating future value for customers, and as a method of mitigating and adapting to a changing climate.

A Customer Value Proposition (CVP), is a mechanism that Ofgem allows for network expenditure, outwith the normal set of expected outputs, in the pursuit of innovation to create value for customers. SSE Distribution’s proposal to establish new seagrass meadows in the seas around its licence areas, due to its exposure to the marine environment when replacing subsea electricity cables, was granted funding. This CVP seeks to understand the value of seagrass both as a method of enhancing marine biodiversity and, potentially, providing important evidence on the contribution of seagrass replanting for carbon sequestration.

A second element of the Business Plan, is the funding of nature-based solutions for carbon removal. The objective of SSE’s plans for a nature-based solutions approach, is to tackle residual emissions at the end of its science-based targets and align carbon abatement activity, thus demonstrating nature-based solutions as a feasible and credible method, while delivering wider environmental and social ecosystem service benefits.

This work has set in motion a significant policy shift. It not only secures funding for indigenous habitats in the short term, but shifts the policy dial for future price controls, laying the pathway for others to follow.

The co-existence of nature and renewable energy

SSE’s portfolio of hydroelectric power stations has co-existed with the valuable ecosystems of the north of Scotland, for nearly 80 years. Decades of experience exist in fulfilling statutory obligations to ensure that Atlantic salmon can follow their migratory path (see case study on the journey of the smolts). This includes the continued operation of adult fish counters at key strategic locations with fish count records dating back over 60 years in some instances. This information is invaluable in informing wider conservation strategies for Atlantic salmon and SSE. Renewables have long-standing commitments to sharing this with conservation agencies and fisheries boards. In addition, SSE Renewables currently commit to extensive and targeted management interventions to enable juvenile salmon (smolts) to migrate safely to sea each year (see case study on page 83). A similar approach is in place to enable upstream migration of Atlantic salmon.

The development of onshore wind in Scotland, often in places where peat dominates the landscape, has led to an obligation on developers to both protect and enhance peatland habitats. Through sensitive site design and long-term habitat management plan commitments, SSE Renewables has extensive expertise in peatland restoration and management practices. For example, SSE Renewables’ Strathy South wind farm commits to an ambitious forest to bog restoration scheme involving the removal of 0.31ha of commercial forestry, considered to be of very low biodiversity value, and returning this to native peatland habitat. The project has also committed to a further 46.9ha of offsite open moorland bog restoration.

Managing habitats during Transmission upgrades

SSEN Transmission has introduced an ‘Irreplaceable Habitats’ policy, which puts stringent processes in place to prioritise the avoidance of routing transmission infrastructure through ancient woodland, veteran trees and peatland wherever possible.

In circumstances where impacts are unavoidable due to the extent of ancient woodland coverage in its network area, and where network resilience could potentially be put at risk, SSEN Transmission set out comprehensive and site-specific irreplaceable habitats plans to minimise any potential impacts wherever possible. Examples include enabling micro-siting, reducing standard operational corridors and restorative action.

In the case of ancient woodland specifically, SSEN Transmission is committed to funding appropriate restoration projects to enhance the condition of existing ancient woodland sites (for example, by removing invasive non-native rhododendron) or where tree removal is unavoidable (historically, this tends to affect commercial plantation), replacing removed trees with native broadleaves to enhance woodland ecosystems.

For example, in Scotland’s rainforest in Argyll, SSEN Transmission is working with the Argyll Coast and Countryside Trust (ACT) to deliver 30 hectares of new woodland. The business also provided funding to ACT for a woodland officer to help develop plans for the planting activities. Over the next five years, SSEN Transmission will need to plant approximately 650 hectares of woodland in this area.

Supporting communities to improve wellbeing and enhance nature

SSE works to raise awareness and understanding of biodiversity and conservation, encouraging both employees and communities to connect with the natural environment around them. The importance of connecting with nature and having access to outdoor spaces remains essential for people’s physical and mental wellbeing.

Many of SSE’s assets provide recreational amenity, for example Galway Wind Park in Ireland hosts a number of boardwalks. In addition, many renewable energy projects opened to the public via managed access, including SSEN’s dedicated liaison manager at its Ardbrook site has been working alongside the local community to deliver a number of biodiversity improvements to a local woodland, St Michael’s Woodland, by introducing bird nesting boxes, wildflower planting and other infrastructure improvements to promote community use.

SSEN Transmission is also responsible for managing the impact of hydropower on salmon in water catchments in the north of Scotland, which can result in trapping young salmon (called smolts) in spring during their seaward migration, and transporting them downstream, to allow safe passage past dams.

In 2022, to improve the number of smolts reaching the sea, SSE Renewables took over management of the Tiny trapping site on the Shin water catchment area. SSE Renewables, dedicated hydro environment team, which includes a full-time fisheries biologist, has implemented several innovative changes, including the use of a motorised trap, a novel automatic release cage to preserve the nocturnal migration of smolts, and rock-filled bags to direct river flow and smolts into the trap. Total capture increased to 4,000 smolts in 2023, almost four-times higher than the 10 year average capture rate.

Improving the number of smolts reaching the sea increases the likelihood of adult returns and has contributed towards increasing numbers in the catchment area in recent years, which is a positive trend at a time when the abundance of wild salmon is at an all-time low across Scotland.

Full detail of the project can be found in the SSE Renewables Sustainability Report 2023, which will be published later in the year at sserenewables.com/sustainability.

Sensitive habitat conservation during network upgrades

In 2022/23, SSE Distribution replaced the 11kv subsea cable between the isles of Mull and Coll. Through stakeholder consultation it was identified that the cable route would run through unique machair habitat. This habitat is a low-lying grassy plain that supports plant species such as red clover, bird’s-foot trefoil, yarrow and daisy, and rarer species such as lesser butterfly orchid, Hebridean spotted orchid and marsh orchid.

Working with NatureScot, Scotland’s nature agency, SSE Distribution identified mitigation actions that would minimise the impact of the cable replacement to this unique habitat. Where the machair habitat was found to be sensitive (due to shallow root systems), coir matting, additional reseeding and temporary fencing were used to support re-establishment of the habitat. In addition, minimal trench width excavation was used, lifting as little of the machair as possible, for as minimal a time as possible. This ensured there was no detriment to the root system, allowing the machair to rapidly re-establish.

The local stakeholders and NatureScot were satisfied with the retention efforts, with NatureScot planning to showcase SSE Distribution’s efforts as best practice in machair preservation during construction. In 2023/24, SSE Distribution will continue to monitor the integrity of the machair.

INNOVATION IN ACTION

Using innovative techniques to improve salmon management

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Full detail of the project can be found in the SSE Renewables Sustainability Report 2023, which will be published later in the year at sserenewables.com/sustainability.

PARTNERING IN ACTION
Responsible consumption and production

SSE relies on natural resources and recognises the impacts of resource extraction on the natural environment. SSE supports the sustainable use of land and water resources and embraces circular economy principles alongside the waste hierarchy to seek opportunities to mitigate these impacts.

Resource efficiency
SSE is working towards more sustainable patterns of resource consumption by reducing reliance on non-renewable and single-use resources. As a result of SSE’s rationalisation of its recycling and resource recovery services as well as working with suppliers on circular economy approaches, SSE is driving improvements in its recycling and diversion from landfill performance.

SSE has waste management controls within each of its businesses and seeks to follow the waste hierarchy to prevent, reduce, reuse and recycle its waste. It provides recycling facilities at its key offices and operational sites and adheres to the relevant regulatory requirements for waste management at its different sites and locations.

SSE’s target for 2022/23 was to divert 85% of waste by tonnage from landfill and recycle 40% of waste by tonnage. It exceeded these targets, with 65% of SSE’s total waste being recycled/composted and only 5% being sent to landfill. The proportion of waste sent to landfill more than halved compared to the previous year. This was due to a higher proportion of waste being processed as energy from waste’ and an increase in waste recycled. Recycled waste increased as a result of improved recycling processes implemented at sites, as well as the inclusion of additional waste recycling data, such as metals.

Over 2023/24, SSE expects to further broaden the coverage of waste performance data to include large capital projects and minor works. SSE’s 2023/24 performance target is to divert 95% of waste by tonnage from landfill and recycle 50% of waste by tonnage. It is expected that the planned scope expansion of waste data in 2023/24 will influence performance, in particular recycled waste data. SSE will continue to review its waste target to ensure that it remains stretching.

SSE is also introducing the principles of circularity into its business activities and is collaborating with stakeholders to create solutions for industry-wide challenges and support circular supply chains.

Managing water use
Water plays a significant role in SSE’s operations, being used in the energy production process including as a coolant in power stations and a source for power generation in hydroelectric generators. SSE also uses water as an amenity in its buildings.

In 2022/23, total water abstracted by SSE fell to 23,354 million m³ from 23,896 million m³ from the previous year. This was largely due to a reduction in water passing through SSE’s hydro generation plant as a result of lower levels of rainfall compared to the previous year. The vast majority (97%) of water abstracted in 2022/23 was used in SSE’s hydro generation operations. This water is technically recorded as abstracted, but it passes through turbines to generate electricity and is returned to the environment almost immediately, and therefore has minimal environmental impact.

Total water consumed increased significantly over this period, by over 70%. This was due to increased output from thermal power plants with cooling towers which have higher evaporative losses of water than once-through (direct) cooling systems. SSE has a water efficiency and saving programme in its non-operational offices, data centres and depots, and also runs a behavioural change campaign in its non-operational buildings to encourage water savings at work and at home.

Creating the Coalition for Wind Industry Circularity (CWIC)

In March 2023, SSE Renewables partnered with the University of Strathclyde, National Manufacturing Institute Scotland and Renewable Parts Ltd. launched the Coalition for Wind Industry Circularity (CWIC). The creation of CWIC followed the signing of a Memorandum of Understanding in July 2022 with Renewable Parts and the University of Strathclyde which identified three priorities for collaboration: 1) Increase the circularity of in-service parts on onshore wind farms; 2) Establish an end-of-life strategy for onshore wind farm parts; and 3) Deliver a UK Wind Circular Economy Sector Deal to maximise the environmental and socio-economic opportunities to ensure UK leadership on circularity.

CWIC seeks to bring together the UK wind sector to create a supply chain for the refurbishment and reuse of wind turbine components within the UK. Analysis, commissioned by CWIC underwritten by B&G Associates, modelled the economic value associated with this proposal, with the assessment identifying a potential European market of £8.9bn from 2025-2035 and creating 20,000 full-time equivalent jobs based on demand for just 10 wind turbine component parts. More than 25 organisations have submitted an expression of interest to join CWIC, including some of the world’s largest global wind developers, government institutions, innovation bodies and SMEs.

Beyond component parts, SSE Renewables is also focusing on progressing solutions for large-scale and commercially viable options for the reuse, recycling and remanufacture of end-of-life turbine blades. SSE Renewables is active in SusWIND, with progress made on the development of a life cycle analysis toolkit to enable owners of wind turbines to make informed sustainable decisions when turbine blades must be decommissioned.

The Company is a pilot partner of ReWind, a tool produced by DNV which profiles which materials are contained in wind turbines, how they can be disposed of in the best possible way, what can be recycled and what the recycling method would be. It is intended that SSE Renewables will use this toolkit to quickly assess turbine recyclability percentage and options for end-of-life planning and sustainable decommissioning. Digital solutions such as ReWind will aid the move towards increased recycling rates for decommissioned wind assets.

Managing air emissions

In 2022/23, SSE’s non-operational buildings water use in 2022/23 was 27,859 million m³, up from 22,875 million m³ the previous year as a result of a return to the offices after the lockdowns associated with the COVID pandemic. SSE provides more detail on water risk management and performance in its annual CDP Water Programme response.

SSE also has a water efficiency and saving programme in its non-operational offices, data centres and depots, and also runs a behavioural change campaign in its non-operational buildings to encourage water savings at work and at home. In 2017/18 a target was launched as part of the programme, to reduce water consumption every year by 2.5%. Total SSE non-operational buildings water use in 2022/23 was 27,859 million m³, up from 22,875 million m³ the previous year as a result of a return to the offices after the lockdowns associated with the COVID pandemic. SSE provides more detail on water risk management and performance in its annual CDP Water Programme response. SSE received a ‘B’ rating for its 2022 submission, which is publicly available at see.com/sustainability.

PARTNERING IN ACTION

CASE STUDY

Reusing materials to support birdlife at Creag Riabhach

In 2022, SSE Renewables continued its work to expand the transmission network in the north of Scotland. Several new overhead lines and substations to facilitate new renewable generation were under construction and some wooden boxes used to store equipment were identified as having reuse potential.

An opportunity was identified to reuse the wood and reduce waste by using it to build nest boxes for birds. Nesting sites for birds are in decline in many areas in Scotland. Discussions with Forestry and Land Scotland and the Highland Raptor Study Group identified that the wooden boxes could be used in the local area as well as further afield. In total, 36 boxes were built for a variety of birds, including barn owls, tawny owls and kestrels. The boxes will help support raptor populations, particularly kestrels which have been showing recent steep declines in numbers. The initiative has already proven to be a success, with two tawny owl chicks hatching in one of the repurposed boxes near Nethy Bridge in the Carrngorms which were recently ringed by Highland Raptor Study Group for monitoring purposes.

In March 2023, SSE Renewables partnered with the University of Strathclyde, National Manufacturing Institute Scotland and Renewable Parts Ltd. launched the Coalition for Wind Industry Circularity (CWIC). The creation of CWIC followed the signing of a Memorandum of Understanding in July 2022 with Renewable Parts and the University of Strathclyde which identified three priorities for collaboration: 1) Increase the circularity of in-service parts on onshore wind farms; 2) Establish an end-of-life strategy for onshore wind farm parts; and 3) Deliver a UK Wind Circular Economy Sector Deal to maximise the environmental and socio-economic opportunities to ensure UK leadership on circularity.

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Governance report

SSE has a well-established framework through which sustainability-related issues are governed, ensuring that social and environmental risks and opportunities are effectively managed.
Governance and accountability

The structures governing sustainability within SSE are designed to deliver clear lines of governance and accountability.

**Data and performance**

**Chair, SSHEAC**

SSHEAC provides more than a key ‘check and balance’ on SSE’s sustainability. The Group strategy that seeks to fulfil that vision and purpose is also set by the Board and is reviewed across the year through an iterative programme of work. Sustainability is articulated within the description of SSE’s strategy given the close alignment between its long-term strategic objectives and the pursuit of net zero.

Within its supporting plan of work, and on an annual basis, the Board further reviews and approves SSE’s priorities relating to its principal sustainability impacts, of which climate change is defined as the most material of all. This is in addition to a range of sustainability and climate-related issues which may be brought in response to stakeholders, becoming ever more sophisticated. SSE regularly reviews the effectiveness of the governance arrangements which support its most material sustainability policies, practices and performance.

**The Board and its sub-committees**

At the highest level of the organisation, the Board sets SSE’s vision and purpose. The Group strategy that seeks to fulfil that vision and purpose is also set by the Board and is reviewed across the year through an iterative programme of work. SSHEAC has oversight of the description of SSE’s strategy given the close alignment between its long-term strategic objectives and the pursuit of net zero.

**Structured governance pathways**

Responsibility for the most material sustainable impacts lie at the highest levels of the organisation with sustainability integrated into the responsibilities of the Board, the Chair, the Chief Executive and the Group Executive Committee. With the quantity and diversity of ESG issues of interest to stakeholders, becoming ever more sophisticated, SSE regularly reviews the effectiveness of the governance arrangements which support its most material sustainability policies, practices and performance.

The Board is advised on matters relating to safety, sustainability, health and the environment by the Safety, Sustainability, Health and Environment Advisory Committee (SSHEAC), which continues to be chaired by an independent non-Executive Director. Its membership comprises four non-Executive Directors, the Chair of the Board, the Chief Commercial Officer, the Chief Sustainability Officer and three senior leaders from across the SSE Group. The SSHEAC has oversight of the annual SSE Sustainability Report and across 2022/23, it enhanced its oversight of ESG matters through deep dives on SSE’s external benchmark performance and an ESG gap analysis.

The Remuneration Committee is also chaired by an independent non-Executive Director of the Board. It prepares SSE’s policy on executive remuneration which remains subject to consideration and approval of shareholders. Through this policy, the approach to performance-based pay assesses Executive Directors’ progress against SSE’s 2030 Goals, which are aligned to the UN’s SDGs. The Remuneration Committee undertook its three-yearly review of SSE’s Directors’ Remuneration Policy in 2021/22, and as part of that, the 2022/23 Annual Incentive Plan includes a new measure aligned to ESG performance, with progress against the 2030 Goals now incentivised in the longer-term Performance Share Plan.

Finally, the Audit Committee of the Board has responsibilities relating to the integrity of financial reporting and the effectiveness of risk management, and oversees SSE’s approach to its Task Force on Climate-Related Financial Disclosures (TCFD) report within SSE’s Annual Report.

The Group Executive Committee and its sub-Committees

SSE’s Group Executive Committee (GEC) is responsible for implementing strategy, as approved by the Board, including Group Policies and the management of risks. The GEC supports identification of SSE’s most material social, environmental, and economic impacts and the delivery of Group sustainability strategy including in relation to climate change. The Chief Executive chairs the GEC and as Executive Director with responsibility for sustainability, agrees the annual objectives and priorities for the Chief Sustainability Officer.

**The Group Risk Committee** is responsible for managing the processes to assess and monitor the Group’s Principal Risks and provides oversight to identified Business Unit risks. The Human Rights Steering Group, responsible for the production of the annual Human Rights and Modern Slavery Statement, and the action plans that fall underneath, reports to the Group Risk Committee. The Group Risk Committee also has oversight of the internal process to identify and quantify the most material climate-related risks and opportunities, which forms the core of the TCFD report in the Annual Report. The Group Safety Health and Environment Committee (SHEC) is responsible for the careful management of safety, health and environment matters across the SSE Group. The SHEC also considers operational sustainability issues, including climate adaptation amidst overall ESG performance.

**Chief Sustainability Officer**

The role of Chief Sustainability Officer (CSO) was established in 2019 and reports directly to the Chief Executive. The role is responsible for advising the Board and its Committees, the GEC, and individual Business Units on sustainability issues and strategy. To further integrate sustainability within the governance structures of SSE, the CSO is a member of the Board-level SSHEAC and three of the six Group-level sub-Committees of the GEC: the Group Risk Committee, the Group Safety, Health and Environment Committee, and the Group Large Capital Projects Committee. The CSO is also a non-Executive Director of the SSE Transmission Board.
Table 4: Sustainability measures and outcome for the 2022/23 AIP award

<table>
<thead>
<tr>
<th>Average performance across three assessments</th>
<th>Outcome (% of max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>85th percentile (upper quintile)</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5: Sustainability measures and targets for the 2023 PSP award

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG 13 Climate Action:</td>
<td>Reduce scope 1 carbon intensity by 80% by 2030, compared to 2017/18 levels, to 65gCO₂e/kWh</td>
</tr>
<tr>
<td>SDG 7 Affordable and Clean Energy:</td>
<td>Build a renewable energy portfolio that generates at least 50TWh of renewable electricity a year by 2030</td>
</tr>
<tr>
<td>SDG 9 Industry, Innovation and Infrastructure:</td>
<td>Enable at least 200GW of renewable generation and facilitate around 2 million LVs and 1 million heat pumps on SSE's electricity networks by 2030</td>
</tr>
<tr>
<td>SDG 8 Decent Work and Economic Growth:</td>
<td>Be a global leader for the just transition to net zero, with a guarantee of fair work and commitment to paying fair tax and sharing economic value.</td>
</tr>
</tbody>
</table>

Table 6: Sustainability measures and targets for the 2023 NSAP Plus

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average performance across three assessments</td>
<td>85th percentile (upper quintile)</td>
</tr>
</tbody>
</table>

Table 7: Sustainability measures and targets for the 2023 NSAP Plus

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average performance across three assessments</td>
<td>85th percentile (upper quintile)</td>
</tr>
</tbody>
</table>

Further detail on the performance outcome for 2022/23 and the changes to the Remuneration Policy can be found within the Remuneration Committee Report in SSE’s Annual Report 2023, on pages 166 to 187.
ESG ratings and indices performance
To increase transparency of its performance in key ESG ratings and investor-led initiatives, the table below outlines SSE’s last two years’ ratings and inclusion in indices.

<table>
<thead>
<tr>
<th>Rating Category</th>
<th>2022/23</th>
<th>2021/22</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Global Corporate Sustainability Assessment</td>
<td>71/100</td>
<td>66/100</td>
<td>Improved</td>
</tr>
<tr>
<td>Moody’s ESG Rating</td>
<td>67/100</td>
<td>67/100</td>
<td>Stable</td>
</tr>
<tr>
<td>MSCI ESG Ratings</td>
<td>AAA</td>
<td>AAA</td>
<td>Stable</td>
</tr>
<tr>
<td>Sustainalytics Rating</td>
<td>22.5</td>
<td>30.1</td>
<td>Improved</td>
</tr>
<tr>
<td>Climate Action 100+</td>
<td>4/9</td>
<td>1/9</td>
<td>Improved</td>
</tr>
<tr>
<td>CDP Climate Change</td>
<td>B</td>
<td>B</td>
<td>Stable</td>
</tr>
<tr>
<td>CDP Water</td>
<td>Included</td>
<td>Included</td>
<td>Stable</td>
</tr>
<tr>
<td>FTSE4Good</td>
<td>Included</td>
<td>Included</td>
<td>Stable</td>
</tr>
<tr>
<td>iWDi</td>
<td>Included</td>
<td>Included</td>
<td>Stable</td>
</tr>
</tbody>
</table>

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Table 1: Sustainability Disclosure Topics & Accounting Metric

| IF-EU-110a.1 | (1) Gross global Scope 1 emissions, percentage covered under (2) emissions limitations regulations, and (3) emissions-reporting regulations | SSE's generation activities in the UK are subject to the UK ETS and the carbon price support and in Ireland they are subject to the EU ETS (see page 26 of this report and page 53 of the Annual Report 2023). SSE is required to report its GHG emissions and energy consumption in the UK through the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Reporting) Regulations 2018 and the Streamlined Energy and Carbon Reporting (SECPR) requirements. Information disclosed in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) alongside pages 49 to 55 of SSE's Annual Report 2023 represent SSE's disclosure against these requirements.

| IF-EU-110a.2 | Greenhouse gas (GHG) emissions associated with power deliveries | As of January 2020, SSE Energy Services, the retail division of the SSE Group, was sold to CVigo Energy. This ended the direct supply of electricity from SSE to household customers in Great Britain. Scottish and Southern Electricity Networks (SSEN) maintain responsibility for the distribution of electricity across central southern England and the north of Scotland, as well as the electricity transmission network in the north of Scotland. Details of the emissions associated with the losses within overhead lines are disclosed in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting).

| IF-EU-110a.3 | Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets | Two of SSE's science-based carbon targets cover Scope 1 emissions. Information on trends and progress against these targets can be found on pages 28 and 29 of the Sustainability Report 2023 and page 53 of the Annual Report 2023.

| IF-EU-110a.4 | (1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market | SSE does not operate nuclear generation.

| IF-EU-120a.1 | An emissions of the following pollutants: (1) NOx (excluding NO), (2) SOx, (3) particulate matter (PMX), (4) lead (Pb), and (5) mercury (Hg), percentage of each in or near areas of dense population | N/A - SSE does not operate nuclear generation.

| IF-EU-140a.1 | (1) Total water withdrawal, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress | SSE depends on water in various ways across its operations, from use in electricity generation to its operations in relation to water stressed areas. See page 87 of this report and page 53 of the Annual Report 2023, along with the accompanying data and performance tables (available at www.sse.com/sustainability/reporting).

| IF-EU-140a.2 | Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations | SSE discloses NOx, SOx, PMX, and Mercury air emissions on page 50 of the Annual Report 2023 and in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting). Data from other air emissions is reported to the environmental regulator and, while this information can be accessed through a request to the regulator, SSE is working to disclose it more readily to its stakeholders in future.

| IF-EU-140a.3 | Description of water management risks and discussion of strategies and practices to mitigate those risks | Information will be made available in 2023/24.

| IF-EU-150a.1 | Amount of coal combustion residuals (CCR) generated, percentage recycled | N/A - SSE does not operate coal-fired power.

| IF-EU-150a.2 | Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment | N/A - SSE does not operate coal-fired power.

| IF-EU-240a.1 | Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers | Information will be made available in 2023/24.

| IF-EU-240a.2 | Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month | Information will be made available in 2023/24.

| IF-EU-240a.3 | Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days | Information will be made available in 2023/24.

| IF-EU-240a.4 | Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory | SSE recognises the challenging circumstances faced by energy consumers, exacerbated by the cost-of-living crisis. In response, SSE Artillery supported its customers through a combination of keeping tariffs as low as possible, a price freeze targeted at financially vulnerable consumers and customer support funds. More details can be found on pages 64 of the Annual Report 2023 and page 32 of the Sustainability Report 2023.

| IF-EU-320a.1 | (1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMPF) | N/A - SSE does not operate nuclear generation.

| IF-EU-420a.1 | Percentage of electric utility revenues from rate structure tariffs that (1) are decoupled and (2) contain a load reduction adjustment mechanism (LRAM) | Not applicable in the UK and Irish electricity systems.

| IF-EU-420a.2 | Percentage of electric load served by smart grid technology | With the smart meter roll out continuing in Great Britain, there are now 1,845,877 smart meters connected to SSE Distribution's network that can 'communicate' to SSE's system. This means that 55% of all SSE's supply points have communications capability and smart capability.

| IF-EU-420a.3 | Customer electricity savings from efficiency measures, by market | See pages 34 to 38 for details of SSE's fuel poverty and energy efficiency support.

| IF-EU-540a.1 | Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Category | SSE does not operate nuclear generation.

| IF-EU-540a.2 | Description of efforts to manage nuclear safety and emergency preparedness | SSE does not operate nuclear generation.

| IF-EU-550a.1 | Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations | SSE has robust processes and practices in place to manage cybersecurity and its data centres are certified to ISO27001 for information security. SSE also has a suite of mandatory ethics and compliance training modules which all employees are required to complete, which includes Cyber Security eLearning module. SSE discloses the number of material or regulatory non-compliance incidents caused by cyber security breaches of SSE systems in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting).

| IF-EU-550a.2 | (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major outage events | A comparable indicator for call to the customer interruptions and customer Minutes Lost on SSE's distribution network. See the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) for data.

| IF-EU-000A | Number of (1) residential, (2) commercial, and (3) industrial customers served | See the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) for SSE's domestic and business customer supply accounts.

| IF-EU-000B | Total electricity delivered to (1) residential, (2) commercial, (3) industrial, (4) other retail customers, and (5) wholesale customers | See pages 106 and 107 of SSE's Annual Report 2023 for volume of electricity sold to customers by business and domestic supply businesses.

| IF-EU-000C | Length of transmission and distribution lines | SSE owns, operates and maintains around 130,000 km of electricity distribution overhead lines and underground cables, and around 5,000 km of electricity transmission overhead lines and underground cables.

| IF-EU-000D | Total electricity generated, percentage by major energy source, percentage in regulated markets | See the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) and pages 101 and 104 of SSE's Annual Report 2023 for SSE's generation by source. SSE has generation activities in the UK and Ireland which are both regulated markets.

| IF-EU-000E | Total wholesale electricity purchased | See pages 106 and 107 of SSE's Annual Report 2023 and the streamlining of energy and carbon reporting (SECPR) requirements. Information disclosed in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) alongside pages 49 to 55 of SSE's Annual Report 2023 represent SSE's disclosure against these requirements.

| IF-EU-000F | *Calculated using the number of smart meters connected to SSEN's distribution network which are communicable by SSEN as a proportion of SSEN Distribution's reported customer numbers. | N/A - SSE does not operate nuclear generation.

| IF-EU-000G | Number of (1) residential, (2) commercial, and (3) industrial customers served | See pages 106 and 107 of SSE's Annual Report 2023 for volume of electricity sold to customers by business and domestic supply businesses.

| IF-EU-000H | Total electricity delivered to (1) residential, (2) commercial, (3) industrial, (4) other retail customers, and (5) wholesale customers | See pages 106 and 107 of SSE's Annual Report 2023 for volume of electricity sold to customers by business and domestic supply businesses.

| IF-EU-000I | Length of transmission and distribution lines | SSE owns, operates and maintains around 130,000 km of electricity distribution overhead lines and underground cables, and around 5,000 km of electricity transmission overhead lines and underground cables.

| IF-EU-000J | Total electricity generated, percentage by major energy source, percentage in regulated markets | See the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) and pages 101 and 104 of SSE's Annual Report 2023 for SSE's generation by source. SSE has generation activities in the UK and Ireland which are both regulated markets.

| IF-EU-000K | Total wholesale electricity purchased | See pages 106 and 107 of SSE's Annual Report 2023 and the streamlining of energy and carbon reporting (SECPR) requirements. Information disclosed in the accompanying data and performance tables (available at www.sse.com/sustainability/reporting) alongside pages 49 to 55 of SSE's Annual Report 2023 represent SSE's disclosure against these requirements.

| IF-EU-000L | *Calculated using the number of smart meters connected to SSEN's distribution network which are communicable by SSEN as a proportion of SSEN Distribution's reported customer numbers. | N/A - SSE does not operate nuclear generation.
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