



Scottish & Southern
Electricity Networks

TRANSMISSION



Sustainability Report 2017/18

About this report

This Sustainability Report is an Executive Level Annual Statement on our submission to the Environmental Discretionary Reward (EDR) scheme. It also provides an update on progress against our Sustainability Strategy. Details of our Sustainability Strategy are included in this report on page 6.

The EDR provides a financial and reputational incentive for GB electricity transmission owners, encouraging high standards of environmental management as well as facilitating the transition to low-carbon energy systems.

The scope of this report is generally focused on performance data for the financial year reporting period from 1 April 2017 to 31 March 2018, however, future initiatives and activities are also described.

The report is structured in three sections: an introduction which sets out the context of our sustainability actions and our current strategy; the main body of the report which sets out our strategic focus areas for 2017/18 and the initiatives that we are using to deliver these; and a final section on the year ahead and an opportunity for stakeholders to feed in to our plans.

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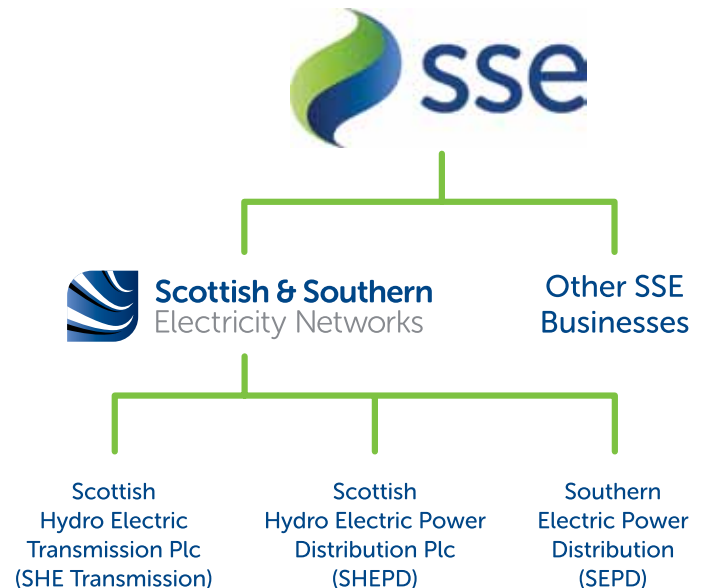
About SHE Transmission

We are Scottish Hydro Electric Transmission (SHE Transmission), part of the SSE Group, responsible for the electricity transmission network in the north of Scotland.

We operate under the name of Scottish and Southern Electricity Networks, together with our sister companies, Scottish Hydro Electric Power Distribution (SHEPD) and Southern Electric Power Distribution (SEPD).

As the Transmission Owner (TO) we maintain and invest in the high voltage 132kV, 275kV and 400kV electricity transmission network in the north of Scotland. Our network consists of underground cables, overhead lines on wooden poles and steel towers, and electricity substations, extending over a quarter of the UK's land mass crossing some of its most challenging terrain.

We take electricity from generators and transport it at high voltages over long distances through our transmission network for distribution to homes and businesses in villages and towns.



Welcome to the Scottish Hydro Electric (SHE) Transmission Annual Sustainability Report 2017/18.

This has been an exciting year for sustainability in SHE Transmission.

A new strategy was developed and consulted upon, clear strategic priorities were set and innovations from previous years successfully adopted as 'business as usual'. In developing the new strategy, we were informed by the context of government policy, climate science and emerging industry trends.

By collaborating with SHE Transmission's stakeholders the most material – and impactful – issues and priorities were identified.

Two of the most important climate-related trends are reflected in this sustainability report. First, we recognise the importance of science based carbon targets and we commit to set a science based target for business greenhouse gas emissions.

The second is the growing role of scenarios in managing climate-related risks and opportunities. This year we have applied whole system planning to the development of our North of Scotland Future Energy Scenarios. Recognising the role electricity will play in decarbonising transport and heat, the scenarios were developed alongside electricity and gas distribution companies, transport agencies and local authorities. And, of course, these published scenarios don't just support us in managing our own risks and opportunities, they make an important contribution to stakeholder understanding of their resilience to climate-related risks and opportunities.

In 2017/18 the delivery of low carbon connections has continued with 449MW of low carbon generation connected and a further 1,090MW expected next year. Furthermore, an "Alternative Approach" to connections

was created to overcome barriers to connecting remote island low carbon generators, releasing substantial renewable energy resource potential.

The use of higher capacity, more efficient conductors has become a business-as-usual development option when delivering connections to the network. This year these conductors were applied on the Fort William to Fort Augustus network upgrade, having been successfully trialled in 2016, delivering faster connections and reducing visual and environmental impact.

While climate change is – by far – our most material impact, a truly sustainable electricity transmission network must balance socioeconomic and resource sustainability too. Ambitions are outlined to grow careers, add value to our communities and manage resources effectively too. We will do that alongside a new target to achieve 'net positive' contributions to biodiversity by 2025.

As a member of the Board Sustainability Subcommittee, it has been a pleasure to see first-hand the development – and delivery – of a comprehensive strategy that, I believe, will deliver a genuinely sustainable transmission network into the next decade and beyond.



Rachel McEwen

Non-Executive Director, Scottish and Southern Energy Power Distribution
Director of Sustainability, SSE Plc

2017/18 in focus



449 MW low-carbon generation

connected to our network in 2017/18



9.3% Reduction

in SHE Transmission Business Carbon Footprint between 2016/17 and 2017/18



4% below

our SF₆ Leakage target for 2017/18



ZERO

Environmental prosecutions or major incidents in 2017/18



Around

£256,000

Awarded through the Resilient Communities Fund in the north of Scotland in 2017/18.



31.7%

SHE Transmission gender pay gap for 2017/18.



Around

£1m

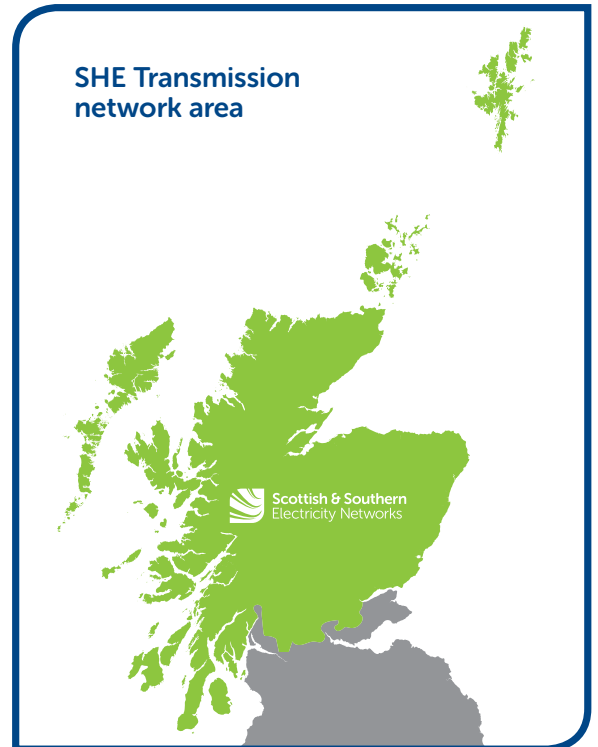
invested in employee learning and development in 2017/18

The environment we operate in

The UK Government ratified the international Paris Agreement in 2016, committing to undertake ambitious efforts to combat climate change and adapt to its impacts.

Progress continues to be made to meet the targets of the Climate Change Act 2008, exemplified by the work of the UK Committee on Climate Change, by the content of the UK Government's Clean Growth Strategy and the Scottish Government's Energy Strategy.

Infrastructure for the transportation of low-carbon electricity will be essential to delivering these strategies and accompanying targets. This is why enabling the transition to a low-carbon economy remains our strategic purpose.



Emerging Trends

As the transition continues, there are new trends emerging that we must respond to if we are to continue delivering for our customers, and for society as a whole. These trends are informing our strategic priorities and sustainability ambitions. Five key emerging trends were noted:



Decentralisation

Increases in distributed energy resources will need to be enabled to provide services to support system operation.



Offshore

Increasing volumes of offshore wind farms are expected to connect to our network in the coming years.



Flexibility

High proportions of variable renewable energy generation, requires additional flexibility services as the energy system is decarbonised.



Demand

Electrification of heat and transport are expected to increase demand as the transition continues.











High renewable operations

Decarbonisation has led to a reduction in the thermal generation plant on the system which means system services must be sourced from other providers.

Contributing to the United Nations Sustainable Development Goals

Beyond enabling decarbonisation and the transition to a low-carbon economy, we have wider economic, social and environmental impacts. We support the UN Sustainable Development Goals (SDGs), which provide a common framework for targeting improvements in wider sustainability. In 2017/18, we undertook a materiality assessment of our business operations against the 17 SDGs, to understand our contribution. We actively support eight of the SDGs:

SDG	Why it is important and how we contribute
 <p>13 CLIMATE ACTION</p>	<p>We have a vital role to play in helping the UK meet its carbon targets and support its transition towards a low-carbon economy.</p> <ul style="list-style-type: none"> - 3.6 million tCO₂ displaced since March 2013 by the generation connected to our network. - We have delivered a 38.7% reduction in our Business Carbon Footprint from 2013 (see page 16).
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>Affordable and timely connections are crucial for renewable energy generators developing projects in markets with reduced subsidies and challenging economics.</p> <ul style="list-style-type: none"> - Over 449MW of low-carbon generation connected to our network in 2017/18. - 96% of generation connected to our network is clean renewable generation.
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>The UK's infrastructure needs sufficient capacity to deliver 'greener' energy. To support this, we develop and upgrade the electricity infrastructure in the north of Scotland.</p> <ul style="list-style-type: none"> - Our capital expenditure totalled £398.71m in 2017/18, bringing our total investment since April 2013 to over £2.3bn.
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>An engaging, supportive and fair place to work generates long-term benefits for our business. We seek to create sustainable careers for a workforce which better reflects the society in which we operate.</p> <ul style="list-style-type: none"> - We pay the real Living Wage to direct and supply chain employees. - We invested around £1m in employee learning and development in 2017/18. - Since April 2013 our workforce has grown by 50% to support the growth of our low-carbon network.
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>We rely on a number of natural resources during construction and operational activities, and must use these resources efficiently to minimise adverse environmental impacts, and maximise positive ones.</p> <ul style="list-style-type: none"> - We have been taking innovative approaches to optimise the resources we use (see pages 20 to 22).
 <p>15 LIFE ON LAND</p>	<p>We recognise that the natural environment has an essential role in sustaining society, and work to manage our impacts on biodiversity and the natural world in a responsible and sustainable way.</p> <ul style="list-style-type: none"> - Over 400 employees participating in our CARE programme (see page 17). - Zero environmental prosecutions or major incidents in 2017/18.
 <p>5 GENDER EQUALITY</p>	<p>As part of a traditionally male-dominated sector, we have a lot of work to do to attract more women into our business, and ensure the roles they come into have good earning and progression potential.</p> <ul style="list-style-type: none"> - We are implementing the SSE Group's 'IN, ON and UP' strategy to increase gender diversity. - SSE Group set new gender balance ambitions for women in senior roles in 2017/18 (see page 28).
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>We are committed to developing our network infrastructure in a safe and sustainable way while minimising its visual impacts and preserving the natural beauty of the environment we operate in.</p> <ul style="list-style-type: none"> - We have identified a number of opportunities for delivering visual impact enhancements and submitted proposals for funding approval to Ofgem. (see page 18)

Our sustainability strategy

PURPOSE: Enabling the transition to a low-carbon economy.

We recognise the need to expand our sustainability ambitions beyond standalone decarbonisation aims, and to ensure that our activities are mindful of other social, economic and environmental issues. Using feedback from our stakeholders, we have built these broader considerations into six ambitions:

Our sustainability ambitions



Developing our Sustainability Strategy

In developing our strategy, we were mindful of the wider environment in which we operate. This means considering emerging trends and taking account of the views and needs of stakeholders, including: customers, generation developers, communities, employees, government, regulators and other network companies.



Innovation Icon

We included this icon to draw attention to the areas where we have implemented technically innovative solutions.

Engaging with stakeholders

In February 2018 we published our Draft Sustainability Strategy for Consultation. The responses to this consultation were used to refine our Strategy and to help us with setting specific targets and methods of measuring progress. The overall tone of responses was positive, with stakeholders welcoming our approach and acknowledging the alignment of our sustainability ambitions with current climate change and energy policy ambitions.

More detail on our engagement and its influence on the Strategy is available in our Sustainability Strategy which can be found on: www.ssen-transmission.co.uk/media/2701/sustainability-strategy.pdf

Monitoring progress against our Sustainability Strategy

We have committed to monitor our performance in order to understand progress against our Sustainability Strategy.

The following section, which is structured around the six sustainability ambitions from our Sustainability Strategy, is our first attempt at reporting the progress we have made against it.

The first three ambitions: Connecting for society, mitigating climate change, and promoting natural environment, outline the strategic drivers and some of the initiatives that have been included in our EDR scheme submission for 2017/18.



Connecting for society

Working collaboratively to deliver a whole system solution that promotes affordability.

The timely delivery of large-scale capital investment in new infrastructure to accommodate increasing levels of renewable electricity generation across the north of Scotland remains one of our key priorities.

Affordability of connections is essential for renewable energy generators developing projects in markets with reduced subsidies and challenging economics. The impact of our investments may be small when calculated as a share of individual energy bills, but investment must be efficiently delivered to ensure best value for society.

Initiatives

Strategic focus

Delivering connections for low-carbon generation	Support for remote Islands renewables
	Accelerating connection timescales for small embedded renewable generators
	Use of smart technology to maximise renewable generation potential
Successful delivery of new network infrastructure	Using HVDC technology to enable low carbon transition
Providing flexibility for the low-carbon transition and enabling increased decentralisation	Flexibility strategy and supporting the transition to DSO
Planning for future networks needs	North of Scotland Future Energy Scenarios

Measuring performance



An estimated **3.6 Million tonnes of CO₂** displaced by the generation we have connected to our network since March 2013



Our network now supports **over 5GW** of clean, renewable electricity generation



96% of all generation connected to our network is renewable



1,844 MW of low carbon generation connected to our network between 2013 and 2018.



In 2017/18, **449MW** of new renewable generation was connected



A further **1,090MW** is expected to be connected in 2018/19

*figures reported include small embedded generation connections

Delivering connections for low-carbon generation

The transmission infrastructure that we build and operate for the transportation of low-carbon electricity is essential in the transition to a low-carbon electricity system. Connecting renewable energy generators to the network comes with new technical and commercial challenges that must be overcome if we are to continue to decarbonise electricity supply. Some of the initiatives that we have introduced to tackle these challenges are described below.

Support for remote islands renewables

The connection of the Scottish Islands is important to the low carbon transition. These remote islands (Orkney, Western Isles and Shetland) have a technical renewable energy resource potential that is equal to 20% of GB demand, and hence could make a significant contribution to the delivery of UK decarbonisation targets.

In the last 18 months our focus has been on supporting the case for remote island renewables to participate in the UK Government's Contracts for Difference (CfD) scheme, and designing solutions for delivering the transmission infrastructure required to connect these customers. 2017/18 has seen significant progress with development of new approaches to connections and development, submission of the needs case for Orkney to Ofgem, and confirmation from the UK Government of its intention to allow remote island onshore wind to compete in the next CfD auction in spring 2019.

We continue to work with customers and stakeholders across the three island groups to take forward proposals that will address current network constraints and allow the economic connection of further renewable developments. Orkney has been the first project under development, with the Western Island and Shetland needs cases both currently in development.

Orkney and Alternative Approach development

Impacts

The opportunity to connect up to 750MW of low carbon generation on the islands

Stakeholders involved

Ofgem, UK Government, Customers, other stakeholders

Non-conventional solutions

Alternative Approach introduction

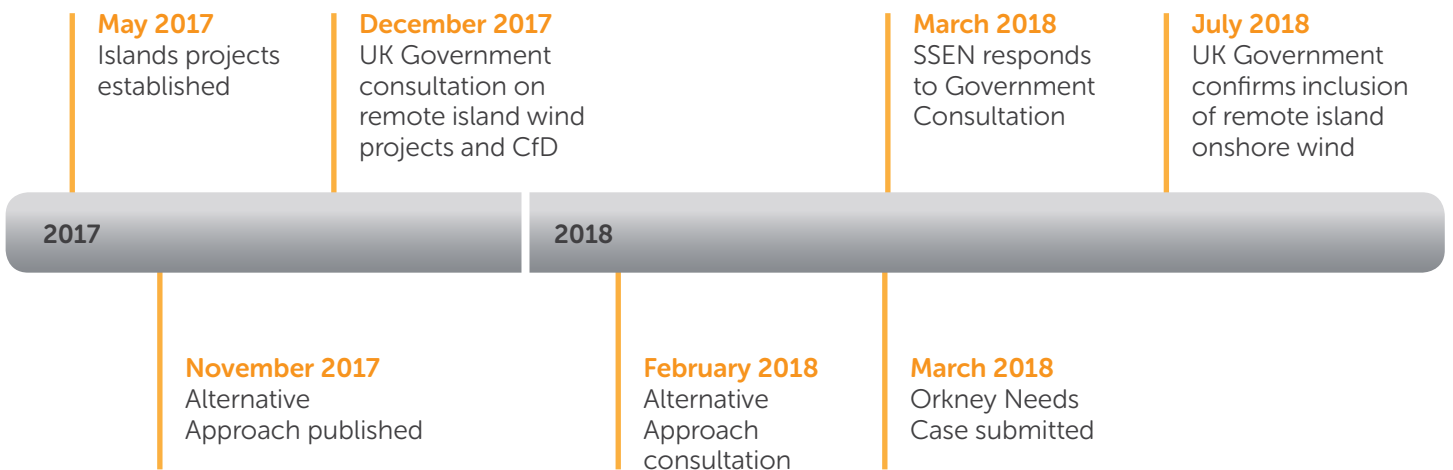
Following the significant growth in small-scale renewable electricity generation over recent years, the existing Orkney electricity network is at full capacity and no further generation can connect without significant network reinforcements.

To overcome this, and help Orkney realise its vast renewables potential, we developed and consulted on an 'Alternative Approach' to development and connections.

In March 2018, we submitted a Needs Case to Ofgem for the Orkney transmission link based on this new approach. The proposed solution would deliver a phased approach to reinforcement, which will initially deliver a single 220MW subsea cable in October 2022, followed by a second cable of similar specification once further generation has committed.

Reinforcing the network in incremental stages and allocating capacity on a ready to connect basis, rather than the current queue process, will ensure the reinforcement delivered is fully utilised at the earliest opportunity and overcomes barriers previously faced by customers. This customer driven alternative approach proposed in Orkney will act as a trial which could subsequently be applied for Western Isles and Shetlands.

Timeline - supporting remote island renewables



Accelerating connection timescales for small embedded renewable generators

During 2017/18 we implemented further improvements to the connection application process for small embedded renewable generators, in line with our strategy to enable earlier connections for low-carbon generators.

Along with National Grid System Operator and Scottish and Hydro Electric Power Distribution (SHEPD) we worked to develop a new Non-Firm Statement of Works. The new process removes complex and costly requirements placed on the developer to enter into a Bilateral Embedded Generation Agreement (BEGA) and allows them to advance their connection date. For the future, embedded generators will be able to benefit from the rollout of the Appendix G connections process.

This process would allow distributed generation to gain earlier full visibility of all works required to deliver their connection across transmission and distribution.

Use of smart technology to maximise renewable generation potential

In areas where there is currently a transmission capacity constraint, we are collaborating with the Distribution Network Operator (DNO) in our region to provide Active Network Management (ANM) solutions to allow generators to connect to the distribution network.

ANM is a way of using software to manage generation and load on the electricity system in real time. It connects separate components of a smart grid, such as smaller energy generators, renewable generation, storage devices, by using software to monitor and control the operation of these devices. Under this scheme, new energy generators can be instructed, via automated controls, to export their power to the grid when spare capacity is available, helping unlock renewable generation output that would otherwise be constrained through conventional grid connection agreements.

This initiative has been successfully applied to numerous schemes in the last two years. SHE Transmission designed and installed an ANM scheme on the Transmission System connected to Boat of Garten Grid Supply Point (GSP) substation, to allow the connection of the wind farm.

Making use of this technology and available network assets speeded up the connection of the windfarm by over a year.

Successful delivery of new network infrastructure

In 2017/18 our capital expenditure totaled £398.71m. We have a healthy pipeline of projects for the remaining three years of the current price control period, which represent a forecast pipeline of investment of around £900m. With this continued investment in network developments, it is essential that we meet the wider societal expectations that accompany this investment.

Using HVDC technology to enable the low-carbon transition

High Voltage Direct Current (HVDC) is the most efficient way to transmit electricity over long distances (particularly subsea cables), with reduced electricity losses and increased capacity.

However, it brings a number of challenges with potential adverse interactions between HVDC schemes, low-carbon generators; and the current lack of standardisation and interoperability.

A number of offshore wind farms are expected to connect to the GB grid using HVDC cables by 2021 and HVDC technology will be applied on the main transmission network to increase efficient transfer of large volumes of electricity.

We have taken a lead on safely and successfully integrating the HVDC technology onto the GB Transmission System, and currently have two live HVDC projects:

- **National HVDC Test Centre** – Opened in April 2017, the centre provides a testing facility for electricity Transmission Owners and Operators, suppliers, developers and academic institutions to simulate the use of HVDC on the British electricity network.
- **Caithness-Moray transmission reinforcement project** – The HVDC submarine cable link will transmit power beneath the seabed between Spittal in Caithness and Blackhillock in Moray, unlocking 1,200MW of renewable electricity generation across the north of Scotland. The £1.1bn project is currently in construction and due for completion by the end of 2018. The project proudly picked up two awards (Infrastructure and Project of the Year categories) at the annual Royal Institute of Chartered Surveyors (RICS) Awards Scotland 2018.

Building on this expertise in HVDC, in 2017/18 we have been working on a new Eastern HVDC project currently in the planning phase.





Eastern HVDC link development

Timescales

Three stage reinforcement completed by 2028

Impacts

2GW connection

Stakeholders involved

System operator and other Transmission Owners consultation

Non-conventional solutions

HVDC technology

We received a positive signal to proceed with plans to reinforce the existing North East and East Coast onshore transmission system following this year's Network Options Assessment (NOA) report published by the System Operator.

The NOA report takes information from each of the three Transmission Owners (TOs) about their transmission network reinforcement options. It combines this with future generation and demand scenarios and carries out a GB wide cost benefit study to allow the System Operator, National Grid, to make independent recommendations about what it considers the optimal sequence and timing of transmission investments.

The project will facilitate the proposed development of an Eastern HVDC Subsea Link between the north of Scotland and centres of demand further south, in conjunction with National Grid. This 2GW link would play an important role in delivering low-carbon, Scottish renewable generation to homes and businesses across Britain.

The reinforcements are planned to take place in three stages; with upgrades to existing overhead lines by 2023 and 2026, followed by construction of the proposed subsea HVDC link from Peterhead to Hawthorn Pit in the north east of England by 2028.



Providing flexibility for the low-carbon transition and enabling increased decentralisation

As recognised in the UK Government and Ofgem's smart systems and flexibility plan, the transition to the low-carbon economy is necessitating changes in the way the electricity network is operated, including new sources of flexibility and the transition of Distribution Network Operators (DNOs) to Distribution System Operators (DSOs).

To achieve the best outcomes for customers, we believe that all sources of flexibility must be used optimally, including larger generators, demand side response (DSR), storage and interconnectors.

Flexibility strategy and supporting the transition to DSO

In November 2017, we published our Supporting a Smarter Electricity System report seeking views from stakeholders on the topic of our role in supporting a smarter electricity system.

This was a joint consultation with our sister DNO business under our joint Scottish and Southern Electricity Networks brand.

The report highlights that our transmission network is already highly decarbonised and decentralised and explains some of the challenges that this poses. While consulting on the approach that we should take in the transition to DSO, we are already working with other network companies to assess the feasible models for this transition and the roles of different parties within this.

This is being undertaken as part of the Open Networks project run by the ENA and our focus in this is to ensure that distributed energy providers are enabled to compete in this flexibility market and ensure the best outcome for consumers.

Contributing to the Open Networks Project

Timescales

Ongoing throughout 2018 to understand DSO functionality. Phase 2 will consider key regulations to enable delivery.

Impacts

Enabling DNO to DSO Transition

Stakeholders involved

A wide range of industry stakeholders

The Open Networks Project is a major energy industry initiative aimed at driving the transformation of energy networks. It brings together a range of industry stakeholders, including UK and Irish electricity grid operators, academics, and regulators.

As part of this project, SHE Transmission is contributing to work stream 3, 'DNO to DSO Transition', which aims to develop a more detailed view of the required evolution from traditional network operation to new Distribution System Operator (DSO) functions. It also aims to understand how DSOs will interact with the Transmission Owners (TO) and the System Operator (SO).

The work will include interactions, the roadmap to implementation and how existing network operators can make the organisational transformation to support new markets and functions. It also investigates key regulatory enablers and utilises ongoing industry work.

Planning for future networks needs

Future Energy Scenario (FES) planning allows us to understand likely future network requirements and plan ahead for these.

Business as usual analysis includes supporting the System Operator, National Grid, through contributions to their FES, Electricity Ten Year Statement and Networks Options Assessment analysis. New analysis is now required to account for changes resulting from the development of the low carbon transition: regional variations and whole system considerations.

During 2017/18, to ensure continuation in the coordination of planning and development on the transmission and distribution networks in our area, we have established a Whole System Development Forum for SSEN.

North of Scotland Future Energy Scenarios

We are now taking a more regional and whole system approach to FES planning, to account for regional differences particular to the north of Scotland, such as higher proportions of renewable and decentralised energy, and changes in demand at distribution level that differ from GB trends.

The energy outcomes for these scenarios will be used to determine the long-term view of network developments. Refinement and modelling will continue in 2018. We are also considering how these regional energy scenarios could be used to inform our more immediate network planning.

For this, we are leading the ENA Open Networks Whole System FES product, which is aiming to establish a whole system approach to FES and alignment across Transmission and Distribution.

Our contribution to this product will run through 2018.

Consulting on developing regional future energy scenarios (FES)

Timescales

Long-term planning for future network development

Impacts

Enable network development based on regional requirements

Stakeholders involved

Governments and local authorities, Community Energy Groups, Network Operators, Developers

Our localised FES has increased granularity in the assumptions based on our local knowledge; this will allow us to best meet customers' needs and to account for the regional differences and enhanced renewable energy and climate change policy and strategy influences in Scotland.

As part of this work, we have consulted with a range of stakeholders on the potential outcomes on generation and demand developments including generation and storage, heat and energy efficiency, electric vehicles, and onshore wind repowering.

The results of these consultations and engagements helped us to model potential outcomes across three FES for the north of Scotland.

See www.ssen-transmission.co.uk/information-centre/industry-and-regulation/future-energy-scenarios



Mitigating Climate Change

To manage resources over the whole asset lifecycle, working towards a science based greenhouse gas target.

While our most material contribution to action against climate change is our role in enabling the low-carbon transition, we are also committed to reducing our own carbon emissions, and in doing so ensure any action we take is aligned with current climate science.

As such, our ambition is to achieve the level of decarbonisation in line with what is required to keep the global temperature increase below 2°C compared to pre-industrial temperatures¹.

Initiatives

Strategic focus

Climate change and business resilience and reducing our greenhouse gas emissions

- Understanding resilience to different warming scenarios
- Adopting a Science Based Target for our own greenhouse gas emissions
- Reducing SF₆ emissions
- Reducing our Business Carbon Footprint

Measuring performance



9.3% Reduction in our Business Carbon Footprint between 2016/7 and 2017/18*



20.9% Reduction in GHG emissions from electrical losses between 2016/17 and 2017/18*

*Data up to 31 March 2018

Understanding resilience to different warming scenarios

In July 2017, SSE Group published its first carbon scenarios report, Post-Paris, assessing the resilience of its business model in GB against three climate change scenarios (1.5°C, 2°C and 3 – 4°C). The report assessed the impact of market and policy changes associated with carbon reduction ambitions.

It can be found here: www.sse.com/media/473275/Post-Paris_FINAL_06072017.pdf

SHE Transmission contributed to the creation of the report and was part of the steering group established to oversee the process. Of particular interest to stakeholders was the risk of 'stranded assets' – with so much distributed generation connecting to the electricity network, the role of transmission assets could be called into question.

The results of the assessment showed that the risk of stranded assets was very small, and that SHE Transmission made an important contribution to the SSE Group's existing, resilient, portfolio of assets which can respond to the various scenarios assessed.

Climate change and business resilience and reducing our greenhouse gas emissions

We have significantly improved the reporting of our greenhouse gas (GHG) emissions over the last four years. Measuring our GHG emission gives us an understanding of the impact our business activities have, and allows us to set appropriate targets and take action to minimise this.

Adoption of a Science Based Target for our own greenhouse gas emissions

We have formally committed to setting a Science Based Target (SBT) with the Science Based Targets Initiative within the next 24 months. In 2018/19, we will review our GHG emissions data and the different approaches to setting a SBT, to decide which approach is most appropriate for our business.

This will require calculation of our carbon budget through one of three approaches:

- Sector-based approach - carbon budget is determined by industry sector and then allocated to companies within each sector;
- Absolute-based approach - each company is assigned the same percentage of absolute emission reductions as is required globally; and
- Economic-based approach - carbon budget is equated to global GDP and a company's share is determined by its gross profit.

Our assessment will need to balance stakeholder feedback that we take either a sector-based or an absolute-based approach, with the expectation that our network may have to grow to facilitate the decarbonisation of the energy sector.

Reducing SF₆ emissions

The transmission industry uses SF₆ gas which is a very strong GHG. To limit our environmental impact we have recently enacted our new SF₆ strategy which focuses on prevention of SF₆ leakage and introduces pro-active measures that reduce the leakage. As part of this strategy we are also considering alternatives to SF₆ which can be used.

Successful implementation of a trial project will lead to further rollout across our projects.



Alternative to SF₆ at Fort Augustus

Timescales	Impacts	Stakeholders involved
Construction commencing in 2019	Reduction in GHG emissions, building industry knowledge which can be shared	Suppliers, network operators

We have been collaborating with three manufacturers (Siemens, GE and ABB) with the aim of installing a 132kV gas insulated switchgear using an SF₆ alternative on a project at Fort Augustus.

As well as benefiting the environment through reduced GHG emissions, we will be able to gain operational experience of using this alternative gas which will allow us to build knowledge which can be shared with other Transmission Owners. This project has progressed without innovation mechanism funding, demonstrating our willingness to engage with contractors and suppliers where there are environmental benefits.

The contract will be awarded in 2018 with construction commencing in 2019.

Reducing our Business Carbon Footprint

Our reporting and data collection strategy is improving year on year, and as a result the reported improvements in meeting carbon reduction targets are likely to be countered by the greater amount of data collected.

This can be seen in the increased inclusion of contractor emissions within the Transmission Business Carbon Footprint (BCF). However, we have improved performance throughout the RII0-T1 period, evident in a 9.3% reduction in our reported BCF between 2016/17 and 2017/18, bringing the total reduction since the start of the price control period in 2013 to 38.7%.

Some of the key elements of our BCF include the GHG emissions outlined below.

Data gathered ²	2017/18	2016/17
Building energy usage (tCO₂e) (Buildings electricity, Buildings other, Substation electricity)	3,604.2	2517.85
Business transport (tCO₂e) (Road, Air and Rail)	814.6	652.86
Operational transport (tCO₂e) (Road, Air and Rail)	13,764.2	5230.62
Fugitive Emissions (tCO₂e) (Sulphur Hexafluoride - SF ₆)	7,452.0	5759.74
Electrical losses (tCO₂e)	87,000.92	110,004.3

Energy losses reduction at Tealing substation



Timescales

2017/18

Impacts

Reduction of substation controllable losses

Stakeholders involved

Edinburgh Napier University

One initiative undertaken focused on fitting monitoring equipment at Tealing substation which allowed us to identify losses and carbon savings that could be achieved from a number of suggested intervention measures. In particular, lighting occupancy controls and two roof insulation interventions showed significant cost and carbon savings were possible.

We are considering further rollout of the initiative around the wider business.

² Data gathered in line with the following guidelines: UK Government's environmental reporting guidelines (DEFRA, June 2013), the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (World Resources Institute and the World Business Council for Sustainable Development, 2004), and ISO 14064- 1:2006 Specification for Quantification and Reporting of Greenhouse Gas Emissions.



Promoting Natural Environment

Delivering a biodiversity net gain for our projects

Our capital expenditure during this price control is expected to exceed £3bn, representing a substantial project delivery programme. As the life of our assets can span multiple decades, it is essential that we ensure this development expenditure is undertaken in a sustainable manner, to protect and promote our natural environment now and for the benefit of future generations.

Initiatives

Strategic focus

Ensure activities help to enhance the biodiversity in our area, targeting a net gain.

CARE (Commitment Awareness Rigour and Engagement)
Working towards ISO14001
VISTA (visual impact of Scottish Transmission infrastructure)
Protecting and enhancing biodiversity

Measuring performance



Zero environmental prosecutions or major incidents in 2017/18



100+ stakeholders consulted about plans to improve visual impact of transmission assets

Ensure activities help to enhance the biodiversity in our area, targeting a net gain.

Promoting our natural environment encompasses many areas including (but not limited to) biodiversity, natural processes, landscape change and visual amenity. Through our development activities, we consider a wide range of natural environment aspects at each stage of our work.

CARE (Commitment Awareness Rigour and Engagement)

Launched in 2016/17, the Environmental 'CARE' initiative is a tool to embed the natural environment and sustainability values in project development and construction, and in day-to-day operations.

CARE is about considering the natural environment in every aspect of our working lives, from looking into the feasibility of a new network project to ensuring we recycle the waste from our site offices.

The initiative is delivered through a package of training, procedures and working instructions, which provides our teams with guidance on their interactions with the environment.

The focus for 2017/18 has been towards contractor engagement. This has included the establishment of our Environmental Contractor Forums which involves engaging with principle contractors for our large capital projects, opening a discussion about what we expect as a client in terms of environmental standards and performance.

Working towards ISO14001

ISO14001 is an international standard which defines criteria for an Environmental Management System, helping organisations manage their environmental impacts and continually improve their management processes.

SSE has a corporate certification for ISO14001:2015 and during 2017/18 SHE Transmission has been working towards a distinct certification under the wider group systems. This will allow us to incorporate key issues specific to our transmission activities. This will further help us to effectively prioritise and manage our environmental impacts (and opportunities) through everyday business activities.

In preparation for the certification, during 2017/18 we have worked to improve procedures, including: implementing new audit/inspection procedures, which we are reporting against in new business level KPIs; finalisation of our overhead line route selection procedures to ensure environmental considerations are effectively considered at optioneering stages; and inclusion of Consents and Environmental Specification in every principal contractor's contract, setting out environmental expectations/requirements that should be delivered.

We have also now set forward thinking initiatives for 2018/19 that align to our new Sustainability Strategy and key business environmental impacts.

VISTA - Visual Impact of Scottish Transmission Assets

Timescales	Impacts	Stakeholders involved
VISTA will run until 2019/20	Reduced visual impact	Regulator, energy customers, communities

Through the VISTA project, GB electricity transmission owners propose projects for an Ofgem administered £500m fund to mitigate the impact of existing electricity infrastructure on the visual amenity of nationally designated landscapes.

Stakeholder engagement has played a central role in developing our projects. To ensure that our decisions are reflective of customer and stakeholder views, we have sought to involve as many relevant parties as possible, consulting with over 100 stakeholders in 2017/18.

Our project team held a proposals workshop in June 2017 to present decision making to stakeholders and agree a consensus on the preferred mitigation proposal to take forward to Stage 3 of Project VISTA. Agreement was reached on the preferred mitigation selected for each proposal.

Since the summer of 2017, the VISTA project team has been working closely with key stakeholders and landowners to progress the development of the schemes. This has involved detailed design of both technical and non-technical visual impact mitigation projects, ranging from undergrounding to woodland enhancement and tower painting.

The first submissions to the Ofgem fund will be in the third quarter of 2018/19.

Protecting and enhancing biodiversity

We recognise that biodiversity plays an important role in sustaining society and work to manage its impacts on biodiversity in a responsible and sustainable way.

SSE Group's Biodiversity Strategy³ provides enduring principles to guide us when undertaking our activities, encouraging consideration of the environment and ensuring that we take responsibility for any impacts it may have on biodiversity, whether negative or positive.

Properly accounting for protected species from design and construction, through to operation, is a critical element of the work we undertake due to the statutory and moral obligations of protecting the environment in which we work.

In 2017/18, we have been undertaking work to improve our Species Protection Plans and seek to incorporate environmental considerations in all aspects of our developments. During this year we have continued to develop and update our suite of tailored Species Protection Plans (SPPs) in collaboration with Scottish Natural Heritage (SNH).

The SPP's updated this year include: freshwater pearl mussels, badgers and bats.

Protecting the Eurasian beaver

Timescales

Dependent on Scottish Government legislative process

Impacts

Employee training and awareness raised

Stakeholders involved

Regulator, employees

We have taken a proactive approach to intended changes in legislation and consulted with Scottish Natural Heritage (SNH) on the creation of a Species Protection Plan (SPP) for Eurasian beavers.

Eurasian beavers have been reintroduced to Argyll through a licensed trial and are also found throughout Tayside and on the River Beaulieu. They can have a positive effect on biodiversity through their modification of habitats by coppicing, feeding and damming. The Scottish Government intend to provide legal protection to beavers in Scotland, in accordance with the European Habitats Directive, as soon as is practical.

The SPP will set out where beavers are likely to be found, provide guidance on survey and field signs, and also include mitigation strategies. In-house training on these topics was held with relevant employees in 2017/18. With little experience of beaver survey and mitigation in the UK, we are keen to help inform best practise. Through this proactive approach, we will be prepared to meet legislative changes when they come into force.





Optimising Resources

Managing resources to maximise sustainability

With significant investment over the last few years, our network now consists of over 5,000km of high voltage overhead lines and underground cables. Many of the resources that we use in building this infrastructure are non-renewable resources, such as steel, aluminium and copper.

To ensure we are making best use of these resources, in line with circular economy principles, we seek to keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life. Through the initiatives outlined below, we are taking steps to understand our resource use and implement ways to manage and measure this.

Initiatives

Strategic focus

Seeking to keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

Strategic stores allowing re-use of materials

Reuse of resources while upgrading infrastructure

Using more sustainable resources in construction

Measuring performance



Chemicals and waste

We will work with our contractors to ensure that they follow the principals of waste minimisation and resource re-use on our projects, making requirements on waste and resources use a feature of our contracts.



Water

To complement water efficiency and savings programme across the SSE Group, we will seek to understand our water consumption and explore water saving initiatives.

Strategic stores allowing re-use of materials

We have strategic stores to support maintenance work on our networks. These are warehouses which house equipment and components which are accessed when maintenance or repair work is required on our assets.

Up until now, we have been storing components from decommissioned assets in these strategic stores for re-use on an ad hoc basis. We are now working to implement a consistent approach to this across the business, ensuring that more of our decommissioned components which are suitable for re-use are sent to our strategic stores, rather than disposed of. Through this approach, we can ensure that we get the maximum use out of these components and reduce the waste we produce.

Work is being initiated to gather additional intelligence on reusable components available on our network which will allow us to manage our re-usable assets more effectively in the future.

Seeking to keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

Reuse of resources while upgrading infrastructure

We seek to upgrade rather than replace assets wherever viable and, in cases where replacement is required, we aim to re-use as much as possible. Through innovative solutions, such as reconductoring existing network with more efficient Aluminium Conductor Composite Core (ACCC) Monte Carlo conductors, we are working to minimise the use of new resources.

ACCC conductors are twice as strong as the steel equivalent, 70% lighter and able to carry twice the amount of power as conventional cable of the same size and weight. Through reconductoring existing lines, we can strengthen the existing network without the need for building new infrastructure, which can reduce costs and shorten the delivery times of some connection projects.

We first applied this technology to our Bhlaraidh and Beinneun connection project in 2016.

The initiative has effectively transitioned into a business as usual solution within our suite of development options and we will adopt a similar higher voltage reconductoring approach on future projects as appropriate. Such as Fort Augustus-Fort William project.

Fort Augustus - Fort William reconductoring



Timescales

Summer 2020 delivery

Impacts

Better material used, minimise visual impacts, more powerful carrying capacity of the conductor

Non-conventional solutions

ACCC conductor

In response to the need for additional capacity for our renewable generation customers, we are currently upgrading the network between Fort Augustus and Fort William.

This work includes refurbishing the towers that were originally constructed in 1955, and replacing the existing wiring with the ACCC Monte Carlo conductor. When complete in summer 2020, the new wires will be capable of carrying increased amounts of electricity whilst ensuring the security of demand for generation customers and critical industrial demand customers.

This approach has the added benefit of reducing potential disruptions linked with development of our network and avoiding the visual impacts related to new infrastructure.

Using more sustainable resources in construction

Where appropriate, we seek to use resources which are as sustainable as possible. We are adopting new products, such as composite poles in place of wood poles or steel towers, to reduce our reliance on non-renewable and limited resources.



Dorenell composite poles

Impacts

Reduced need for resources, reduced environmental impact during construction, minimised visual impact, extended lifetime of asset compared to traditional solution

Stakeholders involved

Suppliers

The use of composite poles instead of steel lattice towers or traditional wooden poles in our work to connect Dorenell Wind Farm to its Blackhilllock Substation resulted in significantly reduced environmental impact and disruption to the land during construction.

The durable composite poles have a higher strength to weight ratio, allowing them to support a larger sized conductor on one overhead line, rather than two parallel lines of wooden poles which would otherwise have been used.

The strength of the poles also meant that greater spacing between individual poles could be maintained, reducing the number of poles required for the connection by 75%. SSEN used a specialist helicopter to install the poles, which reduced disruptive enabling works required (installation of access roads for vehicles, crane pads, etc.) and the number of associated vehicle movements.

In addition, at 80 years, the lifespan of composite poles is around double that of wooden poles maximising the lifespan of the asset.





Supporting Thriving Communities

To maximise the local (social and economic) benefit of our investments.

Local communities and their support are vital to our continued business success. During 2017/18 we continued with our work to ensure we maximise the social and economic value we create for the communities in which we live and work, through key initiatives outlined below.

It is important that we are able to measure and understand the impact we have on communities. Over the last few years we have made significant progress in quantifying and understanding the contribution our major projects make to the UK and Scottish economies.

For example, through our socio-economic analysis of the Caithness- Moray Transmission project, we have estimated £643.3m will be contributed to UK GDP, of which £265m will be to Scottish GDP.

Initiatives

Strategic focus

Maximising the benefit that local communities receive from project investment, community support investment and local volunteering.	Giving back to local communities
	Using local supply chains
	Helping communities become more resilient

Measuring performance



Around **£256,000** Awarded through the Resilient Communities Fund in the north of Scotland in 2017/18



Over **£26.9m** Awarded through O4B on SHE Transmission projects to date since it opened in 2012



Maximising the benefit that local communities receive from project investment, community support investment and local volunteering.

One of the most significant impacts we have on the areas in which we operate, is the local economic benefits created through some of our major development projects. But our investments in communities are not only financial, our employees also commit their time to supporting projects in our communities through initiatives such as our employee volunteering scheme.

Giving back to local communities

Timescales	Impacts	Non-conventional solutions
Ongoing	Equivalent to £18,000 invested in communities in 2017/18.	Employees, local communities and charities.

We value the importance of employees giving back to their local communities, and offer them the opportunity to volunteer a working day each year through our 'Be the Difference' programme.

We also match employee fundraising up to £150. In 2017/18 our employees volunteered around 740 hours with community groups and projects, and the value of our investment in communities through these programmes was over £18,000⁴.

Using our skills to support local groups

One of our Environmental Advisors used their Be the Difference day to teach biology students from Aberdeen University Conservation Society about badgers – one of the protected species we encounter most frequently during construction and maintenance works.

The students were guided around examples of different types of badger setts and supported to put theory into practice as they looked for further evidence of badgers and of other animals which sometimes also occupy the setts. During the outing, the students found, identified and interpreted badger paths, footprints, claw marks, hairs, and bedding material. The day was a great example of an employee undertaking skills-based volunteering to support a local group.



Using local supply chains

Where feasible, we aim to support local employment and a local supply chain when developing, constructing and operating assets. One way we do this is through the Open4Business (O4B) portal, which provides local suppliers and service providers with a simple and free way to view and bid for opportunities relating to our projects.

The O4B portal has brought benefits to local communities by increasing the involvement of local businesses in the works, either contracting directly with ourselves, or through our principal contractors. At 31 March 2018, a total of £26.9m worth of contracts or subcontracts had been awarded to local businesses in relation to SHE Transmission projects since the first portal was launched in 2012.

Helping communities to become more resilient

Timescales

Until at least 2023

Impacts

Over £260,000 awarded to local communities in 2017/18. Future years will vary depending on value of Stakeholder Engagement incentive we receive.

Non-conventional solutions

Local communities, regulator, NGOs and charities

We provide additional support to communities across our network area through our Resilient Communities Fund.

The fund is currently used to support projects that will help the community during extreme weather events or when electricity supply is lost, with a focus on vulnerable customers. In 2017/18, the fund awarded £264,950 to 41 projects supporting over 126,000 people in 12 local authority areas across the north of Scotland.

We have confirmed continued support for the fund until at least 2023, using 33% of the Stakeholder Engagement incentive from industry regulator Ofgem.

Following stakeholder consultation, in 2017 the fund was enhanced to include support for building community capacity to cope with an emergency incident or event, and to prioritise the resilience of vulnerable people.





Growing Careers

Committing to a safe and inclusive culture for our employees; adding value through good jobs, training and development.

We are committed to a responsible and inclusive approach to employment and progression, underpinned by the principle that all our direct and supply chain employees must be treated, and treat each other, with fairness and respect. This means we invest our employees' training and skills development and are committed to paying the real Living Wage.

In addition to our direct employees, we also believe those in our supply chain should be treated fairly. We are using our role as a buyer to improve standards via our procurement contracts. We ask our contractors to at least meet our minimum standards, paying employees working on our projects the Living wage, and meeting Modern Slavery Act legislation. You can read the SSE Group Modern Slavery Statement, which applies to SHE Transmission, on www.sse.com.

Our strategic focus area and supporting initiatives outlined, are helping ensure we continue to work to these principles whilst creating sustainable careers. At 435 employees, our workforce has doubled since April 2013 to support the expansion of our low-carbon network. The jobs we support and create in the, largely rural, north of Scotland can have higher economic value than those in more urban areas, and in early 2018 they made an important contribution to the SSE Group being ranked number 1 in the FTSE 350 on The Good Economy Job Ratings Index 2017⁵.

Initiatives

Strategic focus

Attracting, developing and retaining an appropriately skilled, diverse and sustainable workforce and leadership team.

Using the skills gap as an opportunity to become a more inclusive employer

Addressing gender diversity

Group Inclusion Strategy 2017 – 2020

Measuring performance



Around

£1m

Invested in employee learning and development in 2017/18



31.7%

SHE Transmission gender pay gap for 2017/18



⁵ This rating assesses companies' contribution to inclusive jobs growth in Britain and acknowledges that some economic growth has more social value than others. For example, employment in areas with poor economic conditions and limited employment opportunities, often rural areas, creates an important multiplier effect for regional economic growth.

Using the skills gap as an opportunity to become a more inclusive employer

Two key challenges facing the energy sector are a skills gap in the 2020s and stark lack of diversity within the industry.

SSE's strategy to address these challenges is to use the skills gap as an opportunity to become a more inclusive employer and grow sustainable careers, maximising social value by recruiting from local areas. We believe broadening the potential talent pool and skills base will result in a higher quality of decision-making and improved company performance and productivity.

In addressing the skills gap we have a responsibility to invest in our employees and add value through the creation of good jobs, training and development. In 2017/18, we invested around £1m in employee learning and development and had 15 people on one of our pipeline programmes⁶.

Building career paths

Timescales

All job roles business planning and performance teams to have a career path by the end of 2018.

Impacts

Around 20 roles with career paths, resulting in greater employee clarity on career progression

Stakeholders

Employees, local communities and charities.

In 2017/18, we worked on the development of an online platform for career paths for our employees.

Through feedback we learned that some employees felt that there was a lack of visibility of opportunities and they were unclear of where they could progress to next in their career, and what they needed to do in order to progress. As part of a pilot initiative we developed career paths for around 20 job roles in our business planning and performance teams which show the development and career progressions opportunities available to employees and the associated incremental role requirements and competencies that they need to progress.

The pilot was received positively and work is continuing to expand the career path approach across all teams within the Transmission business by the end of 2018.



Addressing gender diversity

As an engineering-focused businesses, many of our roles are traditionally dominated by men. Women comprise just 18% of our workforce and we must take action to encourage women IN to our business, support women to stay ON in the company and help women progress UP in the organisation. We call this our 'IN, ON, UP' strategy.

Our gender pay gap in 2017/18 was higher than the national average at 31.7%⁷. This is partly due to the lower number of women in senior roles – as at 5 April 2018, just 5.3% of employees in the upper quartile pay band of SHE Transmission plc were women. We must increase the proportion of women at the highest levels of the company and in recognition of this, SSE Group has set the following initial gender balance targets for the 'NEW' SSE business, which SHE Transmission will contribute to.

The aim is to achieve the targets within three financial years:

20% ▶ **30%**

Executive Committee and Direct Reports to the Executive Committee*: from 20% women at present to 30% women by March 2021

16% ▶ **25%**

Membership of the Executive Committee and its sub Committees: from 16% women at present to 25% women by March 2021.

14% ▶ **20%**

Roles at £70,000 (indexed from 31 December 2017) or above, commonly found in Organisational Level (OL) 19: from 14% women at present to 20% women by March 2021.

* The figures for the Executive Committee include the relevant members of the Committee in each financial year, as well as the Company Secretary and MD, Corporate Affairs and Sustainability, who attend all Committee meetings. Administration employees have not been included when calculating the direct reports to these individuals.

Group Inclusion Strategy 2017 – 2020

SSE Group's strategy has been to initially address gender diversity, however inclusion in its widest sense is also important.

SSE has worked with inclusion and diversity (I&D) specialists, Equal Approach, to calculate the financial value from investing in gender diversity initiatives over the three years to 31 March 2017, as well as the expected value of continued investment in wider I&D initiatives up to 2020. Results showed for every £1 invested by SSE in 2017, there was a £4.52 'Return on Inclusion' (ROI), with the potential to achieve a £15 ROI if a wider inclusion strategy was implemented.

These results include analysis undertaken on SHE Transmission data. SSE is now working closely with Equal Approach to implement its new Inclusion Strategy 2017 – 2020, which aims to make the whole of SSE, including SHE Transmission, a more inclusive workplace in every sense.



Looking forward to the year ahead

Many of the initiatives outlined in this report span multiple years and will continue in 2018/19. Areas of particular focus for the year ahead include:

Connecting for Society

Support for remote Islands renewables

We will submit needs cases for Western Isles and Shetland in 2018 and hope to proceed to the next stage of development for Orkney.

Accelerating connection timescales for small embedded renewable generators

Further progress on the delivery of the appendix G trials is expected throughout 2018 in collaboration with the DNO and SO.

Supporting the transition to DSO

We will continue to participate in the ENA Open Networks project to understand the required functionality that DSO will require going forward establish key regulations to enable delivery of DSO.

Whole System Planning and Future Energy Scenarios

We will continue to work with the DNO and other TOs on whole system planning processes and Future Energy Scenarios to assess network solutions required to deliver for customers.

Mitigating Climate Change

Adoption of a Science Based Target for our own greenhouse gas emissions

We will be undertaking the required modelling and assessment to set out science based target over the next 18 months.

Promoting Natural Environment

Protecting and enhancing biodiversity

In 2018 we will define our approach to delivering net positive biodiversity on our construction projects and look to test our framework on a project in development.

Working towards ISO14001

To complement the SSE Group ISO14001 management system, we are aiming to achieve our Transmission ISO14001 accreditation by the end of our 2018/19 financial year.

Optimising Resources

During 2018 we will review our resource use and establish data collection systems that will allow us to create future baselines and improvement targets.

Supporting Thriving Communities

Supporting community energy projects

During 2018 we are undertaking a new project to review the challenges for local and community energy projects and exploring ways in which we could support these developers.

Giving back to local communities

We want to increase participation in our Be the Difference employee volunteering scheme and will be giving this increased focus in 2018/19.

Growing Careers

Using the skills gap as an opportunity to become a more inclusive employer

We will develop a career path for all job roles across our business by the end of 2018. During 2018/19 we will also work towards creating a Project Manager Development Roadmap.

Consultation

We consulted on this statement before final publication to ensure that the statement was clear, easy to understand and met stakeholders' needs. Following that consultation, we made the following amendments:

Issue Raised	Incorporation in Strategy
Too much information and detail provided on each initiative. Some of the case studies were repeated throughout the document. Need to add headings to make it is easier to follow the content.	We reduced the content and the level of detail provided in the narrative and added key headings before each initiative for ease of read. We removed case studies which repeated throughout the document to avoid duplication.
Figures explaining 2017/18 focus included different baseline date which created confusion.	We standardised our key statistic data and used year 2017/18 only to highlight our key focus areas.
Need to add outputs within initiatives and case studies to make it clear what was achieved as a result.	Where possible, we added a table highlighting our key outputs from initiatives/case studies.
Unclear differentiation between the SHE Transmission Business and the overall SSE group.	We added an organisational chart showing the relationship between SSE group, SSEN and SHE Transmission.
When talking about joint Transmission and Distribution projects, we should clarify Transmission's role.	We specified Transmission's role in the projects we included.
One of the respondents pointed out that while it was clear that we were doing a lot around flexibility, it was unclear how we were supporting it. Outcomes of our initiatives were not always clear.	We adjusted the content related to flexibility, adding outcomes of our initiatives where possible.
The environmental section was located towards the end of the document and should be brought up front to highlight the environmental focus.	We listened to the feedback and moved the Mitigating Climate Change and Promoting Natural Environment sections closer to the front of the document.
Water management should be covered in more detail as a part of Optimising Resources and Promoting Natural Environment sections.	We included explanation of our position related to water management within Optimising resources section.
Modern slavery is an issue that has not been mentioned, a link to SSE plc's modern slavery statement would be of interest.	We included explanation of our approach to addressing modern slavery within our business and supply chain in the Growing careers section.

Feedback

As a company, we are always open to further comments. We welcome these throughout the year and they help further inform our work.

We welcome any views, comments or suggestions on what we have published here, a survey is available on our website at: www.ssen-transmission.co.uk/sustainability-and-environment/our-low-carbon-transition-plan/

Should you have any further questions, please contact us at lowcarbonteam@sse.com.

For further information please refer to our website [ssen-transmission.co.uk](http://www.ssen-transmission.co.uk).

Glossary of acronyms

ACCC	Aluminium conductor composite core
ANM	Active Network Management
BCF	Business Carbon Footprint
BEGA	Bilateral Embedded Generation Agreement
CID	Contracts for Difference
CARE	Commitment Awareness Rigour Engagement
DNO	Distribution Network Operator
DSR	Demand side response
EDR	Environmental Discretionary Reward
ENA	Energy Networks Association
FES	Future Energy Scenarios
GHG	Greenhouse gas
GSP	Grid Supply Point
GW	Gigawatt
HVDC	High Voltage Direct Current
kV	Kilovolt
MW	Megawatt
O4B	Open4Business
Ofgem	The Office of Gas and Electricity Markets
RIIO-T1	Revenue = Incentives + Innovation + Outputs (Transmission period 1)
SHE Transmission	Scottish Hydro Electric Transmission
SO	System Operator
SSEN	Scottish and Southern Electricity Networks
TO	Transmission Owner
VISTA	Visual Impact of Scottish Transmission Assets



Scottish & Southern
Electricity Networks

TRANSMISSION

