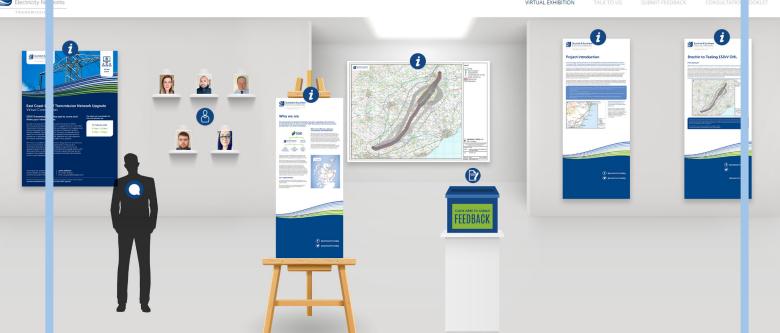
STAKEHOLDER ENGAGEMENT INCENTIVE SUBMISSION

Part 2 2020/21 | Summary of SSEN Transmission Stakeholder Engagement Activities







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Introduction

For electricity networks, high quality stakeholder engagement has become critical to continued success both operationally and at a strategic level.

While decision making power remains largely with companies and the regulator, stakeholder evidence to support decision making is now essential to achieving positive outcomes that meet the needs of stakeholders.



Christianna Logan Director of Customers and Stakeholders

The UK and Scottish net zero targets established in 2019 have cemented the need for rapid and dramatic growth in renewable energy generation and the networks that transport that power to demand centres. The speed and scale of this growth is outstripping the pace of change in our industry processes. We have had to step up and represent the voice of our stakeholders in industry discussions where they do not have a seat at the table, for example in our advocacy on the need for reform in Transmission Network Use of System Charges and for Offshore Wind Coordination. There are technical challenges too, that we have tackled by co-creating solutions with our supply chain, such as our work on the PROMOTION HVDC project and SF6 alternatives for higher voltages.

As a result of stakeholder feedback, we have also had to explain to community stakeholders the impact that delivering A Network for Net Zero will have on their region, and work with them to find mutually acceptable solutions. This year we have expanded our objective that seeks to maximise local content in our investments, to include delivering our compensatory planting commitments predominantly through community partnerships. Alongside this, security of supply remains critical to meeting the needs of end consumers. This year we have developed ways to engage early with developers looking to build near our assets, so that we can find mutually acceptable solutions to this. We also engaged extensively on our RIIO-T2 Business Plan during 2020/21 but on the advice of the Panel have left this out of our submission.

The COVID-19 pandemic abruptly pushed all our engagement activities into new virtual approaches online, along with time-honoured mailing and phone calls. The success of our response to COVID-19 was due in no small part to the quick thinking of our employees, their care for and responsiveness to the needs of our stakeholders, and their determination to deliver our commitments even under challenging conditions. I am immensely proud of how, when tested, our stakeholder-led culture stood up to this challenge. Our enhanced structure, governance and capacity for engagement has proven its worth this year and I look forward to building on this in the years ahead.

Our Strategic Engagement Objectives

Delivery of these objectives is cross referenced in this submission

- Enable and encourage stakeholder input by providing easy access to ourselves and appropriate information as well as ensuring our communications are inclusive.
- 2 Build intelligence on stakeholder needs so we can make balanced and fair decisions which anticipate and meets their
- Work with stakeholders in our planning and delivery, and strive 3. to achieve mutually acceptable and agreed outcomes.
- Develop consistent and transparent processes to capture, act on, discuss and feedback on stakeholder input.
- Develop a culture of engagement by implementing a training programme for our employees and ensuring accountability through clear roles and responsibilities.
- Develop future optionality with input from a diverse group of stakeholders
- Actively participate in industry change as a committed advocate for stakeholders, society and the environment.

2020/21 Engagement Plan

We initially set our engagement priorities for 2020/21 based on feedback from stakeholders during 2019, but with the arrival of COVID-19, we understood that stakeholders' priorities may have changed. Therefore, in August we consulted on our Engagement Forward Plan online, during regular scheduled bilaterals and through a virtual stakeholder engagement workshop

The consultation results showed that net zero remains the number 1 priority but there has been some rebalancing of the trilemma as the pandemic has highlighted the importance of resilience in ensuring security of supply. Stakeholders asked us to move the Net Zero agenda out of environmental forums and into all engagements. The review also resulted in establishment of a new set of Offshore Wind engagement initiatives under our Net Zero and Supporting Our Customers themes. Most work on Local Area Energy Plans has moved out to 2021/22 due to reprioritisation in local authorities who have been focused on the COVID-19 response. We deprioritised this initiative accordingly.

2020/21 Engagement Themes agreed with stakeholders



Net Zero



Supporting Customers



Promoting Best Practice



Operations and Land Access

Engagement Training and Toolkits

Objective 5

In 2020 the Transmission Executive Committee (TEC) supported and approved the development and roll out of a new, mandatory stakeholder engagement training course for all employees and a 'Stakeholder Engagement Toolkit'. Based on feedback from our AA1000 Health Check we developed three versions of the training with worked examples specific to Operations and Asset Management; Project Development and Delivery; and Corporate and Business Services. This helps colleagues understand the benefits of engagement in their own business areas. During 2020/21 over one third of employees were trained with this new course with all employees to be trained by summer 2021.

The Toolkit is available to all employees and includes templates and guidance documents for: Engagement Plans, Stakeholder Profiling and Mapping, and Feedback Reports. The Toolkit was co-created with employees to ensure that the tools are practical and accessible, and we continue to add new tools as our engagement approaches evolve. For example, the Toolkit includes a new guide on managing conflict during a virtual public event which applies lessons learned from our experience during 2020 and from the (non-SSE) Parish Council Zoom call which made the news in February 2021.

Over 850 hours invested in development and learning

Output

200+ employees trained in engagement

Outcome

Engagement strategy further embedded

"I thought the content, pace and your delivery was brilliant, I definitely feel much more informed on stakeholder engagement and feel comfortable that I know the right people to contact if I need to." Amanda Harvey, SSEN Transmission Commercial Analyst

Engaging with stakeholders during the pandemic

Objectives 1 & 3

Stakeholder ask: Meet government guidance, maintain essential works, protect workers and communities and do not delay critical projects.

What we did: We communicated the essential nature of our work to employees, communities and our supply chain, reassuring all parties of the measures being taken to keep them safe and working with our contractors to enhance safety measures based on requests within specific communities. Actions taken as a result of stakeholder feedback included: establishment of additional amenities for site staff including on-site catering to reduce interaction with local communities, establishment of worker households and additional COVID-19 testing for workers traveling to the Scottish Islands. Community engagement was initiated via community liaison groups, attendance at Community Council meetings and direct discussions with key community and elected members. In parallel, we commissioned creation of a bespoke online platform in just 8 weeks which allowed us to host online "town hall" events for 10 project planning consultations (see screenshot of the platform on the front cover). We engaged with local and national planning authorities to ensure that this approach met the requirements

that they were rapidly developing. As a result of this swift deployment, none of our planning submissions were delayed. There were some constraints, including limited broadband access in some rural areas and stakeholders that were less confident with online engagement. To ensure that we still reached this challenging group, we addressed this through the mailing of hard copy information with contact details to reach our **team via phone or email.** In late summer we engaged with stakeholders to gather feedback on current preferred engagement methods and early views on what we should keep as we come out of lockdown. Stakeholders encouraged us to continue with our planned engagements and supported a move to online channels until face to face events are allowed. Based on feedback, we provided advice and training for community members that were unfamiliar with the platforms being used, up-skilling this hard to reach group and successfully moving all our community liaison meetings online. The number and diversity of attendees increased as a result.

Over £125,000 for online platform set up, event costs, resources and materials

- Reduced risk of infection due to protection measures on projects
- Avoided delay to 10 planning consent applications; over 60 virtual events successfully delivered
- We have avoided over £100m of potential lost revenue to our generator customers by not delaying consultations and project development
- Social Return On Investment (SROI): £0.22 value delivered in excess of every £1 spent on our virtual consultation engagement this year, delivered by increasing online connectedness and upskilling our stakeholders with training on digital tools.

Mitigating the impacts of COVID-19 on our supply chain

Objectives 2 & 3

Stakeholder ask: Our supply chain asked for recovery of the full cost impact of COVID-19 on projects and support in resolving pandemic related cash flow concerns.

What we did: Following the introduction of lockdown, we instigated weekly sessions with our supply chain parties to understand whether we could offer any assistance during the period of uncertainty. Through listening to their concerns, we introduced several innovative improved contractual terms aimed at reducing the potential cash-flow impact on the supply-chain: fortnightly reviews to ensure on time payments, two week advance payments each month, reducing retention payments and early release of all retention payments due for release in 2020. In several cases, the impact of COVID-19 has also led to an increase in the forecast cost of delivering projects (due to suspension costs and additional direct costs such as additional cabins, impacts on productivity and prolongation). We

closely reviewed and dissected the additional costs presented by each contractor and sought to reach the optimal position on any additional cost in order to secure best value for the GB consumer. We did so cognisant of the ongoing relationship with our Principal Contractors as we continue to deliver a substantive programme of capital works. We were able to agree a reduction in the increased costs initially proposed, down from over £11m to around £4m, and agreed a mutually acceptable cost sharing approach which further reduced the costs incurred. To protect GB consumers, we absorbed these additional costs associated with delivering RIIO-1 projects during COVID-19. This initiative was project managed by the Procurement Team to support capital project delivery teams.

162 hours spent on engagement and arrangement of improved constractual terms; £4m additional costs absorbed within projects

Outcome

- Avoided additional cost to consumers of over £11m.
- An extremely positive response from our contractors due to alleviation of potential cash-flow constraints as a result of COVID-19.
- Shared learning and best practice across our projects/sites and across various industries for whom our contractors also provide services.
- SROI: £0.49 value delivered in excess of every £1 cost to SSENT over the past year as a result of the avoided additional costs to consumers.

Repurposing the Community Resilience Fund

Objectives 2 & 3

Stakeholder ask: Support members of the community struggling due to COVID-19

What we did: In response to feedback from our Stakeholder Advisory Panel, SSEN Distribution's inclusive service panel and stakeholders at an engagement event in March 2020, we repurposed our Resilient Communities Fund (joint with SSEN Distribution) to help community groups support people during the pandemic. This included the Dundee Thegither project who were given £3,000 to supply food

parcels, medicine and other necessities for 300-350 people a week during lockdown; delivering vital prescriptions and providing a befriending service for people who found the isolation difficult. In Caithness, three community council areas collaborated to support their vulnerable residents by using a local community centre to pool resources, increase learning and minimise travel during lockdown for their rural communities.

Outcome

Over £320,000 of funding distributed to support 200 communities (jointly funded by SSEN Distribution and SSEN Transmission)



Holistic engagement on regional project portfolios

Objectives 1 & 3

Stakeholder ask: Stakeholders in North East Scotland and Argyll & Bute areas of our network asked us to engage on the total development planned for the region over the next decade, not just one project at a time. This is to help them better understand the reasons for the scale of work across the region, how this helps deliver the UK and Scotland's Net Zero targets and how they can help shape our plans.

What we did: We ran bespoke webinars for both the North East and Argyll to present stakeholders with a holistic view of the existing projects and potential projects necessary across each region explaining how these developments will contribute to net zero goals, and outlining how this will impact and benefit the local communities. We used these engagements to further our approach to early engagement by clarifying where there was still scope for stakeholders to influence decisions and promoting forthcoming engagement opportunities. Each webinar included a welcome from our Managing Director or Director of Business Planning, presentations from subject matter experts across the business and Q&A sessions with the presenters. The East Coast event attracted 49 stakeholders and the Argyll event around

100. Stakeholders in attendance included: supply chain, customers, community members, statutory consultees, consultancies and local authorities. 90% of East Coast attendees would attend a similar event in the future and were satisfied or very satisfied by information presented. 69% of Argyll attendees rated event quality as at least 4 or 5 / out of 5. Feedback on areas of concern gathered at these engagements were used to inform future topics and approaches for regional engagement plans. The recommendations, such as combining consultation on projects within regions to reduce stakeholder fatigue, were built in to the 2021 Engagement Forward Plan approved by the Transmission Executive Committee to ensure this approach was embedded.

£4,500 digital platform costs and 230 hours in development and delivery

- Stakeholders better informed of developments within the region and future opportunities to engage with us about these
- Stakeholder feedback resulted in combining of engagement on three projects in Argyll saving £18,000 on event engagement and briefing material costs in 2021 and reducing time required for stakeholders to engage.

"This was a well thought out and presented webinar, and very happy to engage with yourselves again in this format going forward." East Coast event attendee

'Very good session and great content from presenters. Learnt a lot." Argyll & Bute representative

Future proofing investment in Skye through new cost benefit analysis methodology

Objectives 2, 3 & 6

Stakeholder ask: New infrastructure is required in Skye to replace aging assets and to connect new renewable energy generation. During early engagement on the project, Stakeholders (statutory consultees, local authority, landowners, government and communities) asked us to develop an enduring solution that would avoid the need for further infrastructure development within the decade, to minimise local disruption. This required an assessment of what additional generation will seek to connect in the coming years so that the project can be designed to accommodate this.

What we did: We worked with consultants GHD to develop a new Cost Benefit Analysis (CBA) methodology to assess and validate an approach which future proofs the network for near term renewable energy capacity requirements. To inform this analysis we gathered insight into future generation capacity requirements from future customers. This group is generally hard to reach as it can be difficult to identify future customers for a specific region and we do not have established engagement relationships with all future customers. We triangulated the data using multiple sources gathered through different engagement methods including: review of projects with connection contracts; pre-application calls with developers; review of government data on renewable energy projects in scoping and planning; an online questionnaire issued by email; and a webinar event was run to support its completion. The webinar also provided a full update on project development and the regulatory process. To reach a wider pool of potential future customers, the webinar was promoted through social

platforms and invites were sent via email to over 500 developers. The questionnaire responses were assessed using GHD's 'Probability of Generation Assessment Tool' (PGAT) which 'scores' projects against a range of criteria identified as indicators of project development potential, reducing the risk of oversizing the project. 1,071 MW of potential new generation were identified and rationalised down to approximately 600MW that was considered credible. These results were then used in an evidence-based analysis of 'constraint costs' and the levelised cost of energy in the CBA. We have also engaged with the Electricty System Operator (ESO) who provided a high-level evaluation of the PGAT approach and interaction with the Future Energy Scenarios. As a result of a request from Ofgem to see the data, we successfully engaged with stakeholders to get permission to share the data. Providing the data gave Ofgem further confidence in the evidence provided.

585 hours on engagement and analysis plus external consultancy services. Total cost of the CBA engagement and analysis: £192,000

- Enhanced understanding of stakeholder concerns and requirements through Q&A discussion
- Additional renewable generation enabled
- Reduced risk of asset stranding
- Benefit of avoided repeat construction activity on Skye
- Engagement approach and CBA methodology is being replicated in Argyll due to the success of the Skye event and questionnaire
- SROI: Estimated SROI of £1.34 in excess of every £1 spent on the project based on initial CBA analysis. The analysis of potential welfare impacts on the GB consumer and wider socio-economic impact is currently underway but not included in these figures. We expect the SROI to increase once these have been accounted for.

"Dedicating time to listen to future customers' needs is critical to understanding future investment requirements. Doing so in Skye has enabled us to base our analysis on data that can lead us to unlocking long term benefits." Cameron Dobbie, SSEN Transmission Economist

ScotWind - A coordinated approach to offshore wind connection

During 2020 it became clear that delivery of the UK and Scottish Government 2030 offshore wind targets of 40GW and 11GW respectively would require significant grid infrastructure to be delivered at pace. Concurrently, we received applications for nearly 25GW of offshore wind connections which are simultaneously competing to secure seabed leasing rights under the ScotWind leasing round. With the development and construction timeline on projects of the scale required to transport this capacity being up to ten years, we knew that action was needed now to identify requirements and propose an efficient approach to planning, development and delivery to meet the government objectives and needs/demands of stakeholders. In response to this, the Transmission Executive Committee prioritised a package of strategic collaborative initiatives during 2020/21 in support of ScotWind and 2020 targets, which are set out in this section.

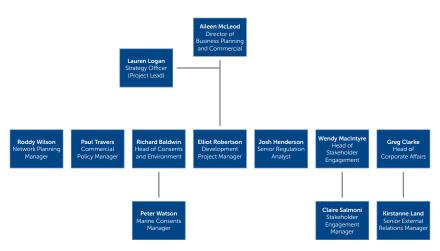
Multiple stakeholders were aware of these challenges and simultaneously initiating projects to identify co-ordinated solutions for offshore wind connections. This included the Department for Business Energy and Industrial Strategy (BEIS) led Offshore Transmission Network Review (OTNR) and the ESO's Offshore Co-ordination. Concerned that silos could develop across the industry, counter to the co-ordination that was required, and having identified that OTNR was very England and Wales focused, we set up an internal cross-business project that ensures a co-ordinated, stakeholderled response across all activities, called Project OTtER (Onshore Transmission that Enables Renewables), alongside an external Scotland focused stakeholder group. This approach is designed to deliver our strategic objective of stakeholder led strategy and our stakeholder engagement objectives of consensus decision making and active engagement in industry change.

Project OTtER

Objectives 4, 5 & 7

OTtER's primary objective is to ensure the timely and cost-effective delivery of the onshore and offshore transmission system necessary to meet GB offshore wind targets. Bringing discussions and stakeholders together, OTtER ensures our inputs are stakeholder-led, and aims to ensure that 2030 delivery is not compromised as an unintended consequence of lengthy efforts to identify the most economically efficient solution for the longer term. The team has a dedicated project manager and includes subject matter experts from Customer and Stakeholder Engagement, Corporate Affairs, System Planning, Development, Environment, Regulation, Policy, Commercial. The project meets fortnightly, chaired by a member of the Transmission Executive Committee and reports regularly to the Transmission **Executive Committee.** Presentations on this work have also been made to our Network for Net Zero Stakeholder Group, SSE Group Executive and Shadow Board.

OTtER project management structure



Offshore Wind development and delivery timeline for 2030

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
				Consenting					
High-level design	Validate offshore conn. works*	Development		Early pro	approvals curement nd FID	Construction			Target

^{*} Following conclusion of ScotWind Leasing round

ScotWind roundtable

Objective 6

Stakeholder ask: Stakeholders including offshore wind developers (future customers) and Government asked us for connection of ScotWind offshore wind projects to be accelerated to connect to the grid in time to contribute to the UK and Scottish Government's 2030 offshore wind targets.

What we did: We established the ScotWind roundtable, chaired by our Director of Business Planning and Commercial, Aileen McLeod, which brings together key Scottish stakeholders including the Scottish Government, Marine Scotland, Crown Estate Scotland, Scottish Power Transmission (SPT) and National Grid ESO. BEIS and Ofgem have also attended the round table. Through a collaborative approach, the purpose of the roundtable is to co-create solutions that help overcome grid associated barriers to the timely deployment of ScotWind through identifying tangible and deliverable solutions. The roundtable cocreated a joint position statement which agreed that the approach to offshore wind connections must be coordinated and collaborative in order to deliver 2030 targets. BEIS established a"Pathway to 2030" workstream as part of the OTNR which is closely aligned with and

complimentary to the objectives of the Scotwind Roundtable. We also made a proposal for a Central Design Team (alongside SPT) to develop the High Level Network Design to deliver a pathway to 2030, which was agreed at a wider ESO, TO, Ofgem and BEIS workshop in April 2021, combining onshore and offshore activities. Our recommendation for development of a GB-wide offshore wind generation map which was previously England and Wales based only has also been adopted by BEIS. The round table also proposed a shared project on Spatial Planning with Marine Scotland which we expect will be taken forward this summer. An update on this work was provided to developers at the April 2021 Scottish Renewables Offshore Conference and circulated to developers via email.

The roundtable met four times during 2020/21. In support of this, we held over 20 bilateral calls; we both chair and perform the secretarial role of the group. Total time investment: 120hrs

Outcome

As a result of our engagement, the collaborative recommendations made have been adopted by BEIS and Ofgem, and Sthe focus of the ScotWind roundtable has been aligned to the OTNR. Through ScotWind, up to 10GW of additional offshore wind capacity will be connected to the network. This engagement will ensure that this can be delivered in time for 2030 as a result of the agreed approaches.

Offshore Transmission Network Review (OTNR) Objective 7

Stakeholder ask: Government asked for expert input into their OTNR Review which similarly seeks to establish a more coordinated approach to offshore wind connections.

What we did: Our Director of Business Planning and Commercial, Aileen McLeod, was appointed to the OTNR Expert Group in an independent capacity. The initial remit of the group seemed to be focused on the long term, with delivery of the enduring regime envisaged post-2023 for post-2030 connections. Applying what we have learned from stakeholders through the ScotWind roundtable, we encouraged Government to also consider the near-term requirements for a coordinated approach to delivery of the 2030 targets. As a result of this engagement, the four workstreams announced in December 2020 and included a specific workstream established for the pathway to 2030. We are now an active participant in various subgroups of OTNR

and are providing tangible and deliverable solutions which are informed by industry experts and stakeholders, filling the Scottish gap and energy networks gap that otherwise would exist in the policy development. This includes providing stakeholder views on the barriers created by Transmission Network Use of System Charges to offshore wind development in the North of Scotland (see page 6). To ensure all OTNR stakeholders understand all areas of the offshore wind industry we hosted a teach in session on the consenting process joined by Scottish Power Transmission and National Grid Electricity Transmission in March. We have also proposed a regional sub-group to include spatial planning elements and environmental and communities' considerations.

Charges to Offshore wind development in the North of Scotland; Director on OTNR Expert Group and expert contributions to working groups (61hrs); Formally input views as expert on network design and development as TO in the north of Scotland on policy proposals made

OTNR expected outcomes

Revised policy that efficiently and economically delivers 2030 targets through a co-ordinated approach. Potential to save consumers approximately £6bn between now and 2050 if an integrated approach is adopted from 2025.

Addressing barriers to entry for offshore wind connections

Objectives 2 & 6

The ScotWind leasing round has led to many offshore wind developers applying for connections at the same sites in anticipation of being awarded a lease. As not all developers will be successful in the auction, not all offers will progress. Expensive industry processes and securities would be a significant barrier to entry for future customers participating in the leasing round.

Stakeholder ask: The ESO requested that we work together to undertake one coordinated CION process once lease results were known to avoid inefficient spend on analysis of capacity which would not proceed. Connection customers also requested lower connection application costs which the CION process forms part of.

What we did: We reviewed the offshore connections process with the system operator and agreed an innovative approach of delivering a "super CION" for Scotwind projects rather than multiple reviews. This has also reduced time spent on initial offshore wind connection applications (pre-CION) by 5 days providing a further

efficiency and cost saving. We updated our connections offers to clearly state that the offers were subject to the outcome of this analysis. These intentions were shared with our broad stakeholder group through our round tables and with developers through connection offer meetings.

Stakeholder ask: Offshore wind developers requested that they not be charged securities for works already underway when they accept their connection offers (due to connections being dependent on wider strategic infrastructure projects), until such time as lease results are known, in order to avoid costs of covering these securities and to avoid termination costs.

What we did: We reviewed the impact of suspending securities payments and established that the costs of the works underway were already covered by other connections customers and so no additional risk would be incurred by consumers. We implemented a new approach of suspending securities payments for Scotwind dependent developers until after the auction.

Outcomes

- £985,000 avoided CION analysis providing a direct saving to Offshore Wind **Connection Customers**
- £850,000 avoided cost of securities for offshore wind developers
- SROI: £4.14 value delivered in excess of every £1 spent, driven by resource efficiency benefits of time invested in the Super CION as opposed to multiple CION processes.

Timeline



Ofgem sets regulatory reform to offshore grids as one of the nine actions in its Decarbonisation Action Plan



We submitted a response to Scottish Government's draft Offshore Wind Policy Statement and Sectoral Marine Plan. The final plan reflected our comments on TNUoS charging and more ambitious target of 11GW



We submitted evidence to the Environmental **Audit Select Committee's** inquiry into Technological **Innovations and Climate Change: Offshore Wind**



Crown Estate Scotland launched the first cycle of property rights for seabed in June 2020. The national Sectoral Marine Plan identified 15 sites for potential offshore wind development. The application window remained open until 31 March 2021



BEIS launches the Offshore Transmission Network Review (OTNR) into the way that the offshore transmission network is designed and delivered, intended to address the barriers it presents to offshore wind deployment



UK Government confirmed 40 GW as the 2030 target for offshore wind capacity, including a specific target of 1 GW for floating wind

- Scottish Government set an ambition for as much as 11 GW of offshore wind in Scottish waters by 2030
- **Transmission Executive** Committee approves addition of Offshore Wind to engagement priorities for 2020/21



ESO publishes its Phase 1 report demonstrating the potential benefits of a co-ordinated approach to network planning

- First ScotWind Roundtable held
- OTNR workstream structures announced



Project OTtER formally established

Delivering savings on network connection application fees

Objectives 2 & 4

Stakeholder ask: Connecting customers and the Electricity System Operator questioned the costs of application fees, particularly for modification applications which can require limited analysis and yet fixed application fees were often 75% of the cost of a new application. Internal stakeholders identified that charge out rates had become outdated due to changes in roles and process.

What we did: In direct response to requests from connections customers – and with sponsorship from our Director of System Planning and Commercial - we designed, tested and implemented a new, streamlined and fast-tracked process for simple applications which do not require system studies. This resulted in cost savings and increased productivity. We also reviewed the hourly rates applied to time worked on applications and updated these to reflect current costs and allocation of time across rate bands. Average costs by application type were also reviewed and fixed cost application fees were updated to better align with these. The new rates were approved by the

Transmission Executive Committee in January 2021, applied in the 2021 Charging statement issued to Ofgem in Feb 2021 and published on our website. The ESO, other TOs & Ofgem were engaged through industry working groups to ensure that the changes made meet the needs of customers and the GB consumer. Connection customer were informed via email to close the feedback loop. The fee review was project managed by the Commercial Policy Manager with the charge our rates workstream led by Finance. This application fee review has now been adopted as an annual process.

- SROI: £1.86 value created over 2 years in excess of every £1 spent, driven by a reduction in application fees to customers and efficiency benefits of the new process
- Increased productivity due to streamlined process

Giving a voice and evidence to stakeholder concerns on Transmission Network Use of System Charges (TNUoS)

Objectives 2, 4 & 7

Stakeholder ask: Connecting customers, existing generators, Government and Local Authorities in the north of Scotland regularly express concern over the high cost of TNUoS charges compared to similar generators elsewhere in GB, the year-on-year volatility of tariffs and the difficulties in being able to accurately forecast charges even just one year ahead. These factors push up the cost of renewable energy generated in the north of Scotland, and act as a barrier to renewable generation ever being built in this location which has significant renewable resource. Generator uncertainty and short notice changes, as a result of changes to the TNUoS tariffs, create a significant challenge in planning transmission network investment which can require up to a decade of planning and construction in anticipation of future connections.

What we did: We engaged with a range of stakeholders across GB, including existing and future customers, Government, policy influencers, local authorities, academics, enterprise agencies and trade associations. Based on stakeholders' areas of concern, we undertook analysis of TNUoS charges which quantified the detriment to north of Scotland renewable energy developers compared to those in other parts of GB. Based on this analysis, we published a thought leadership paper in February 2021, assured by Baringa, and promoted it externally in the media and in bilateral discussions. The paper was also used to brief key decision makers and politicians on the key issues raised, which resulted in parliamentary questions, media coverage and social media support. The report also resulted in an invitation to undertake further analysis in collaboration with academics.

We established an advocacy partnership on this topic with Scottish Renewables due to shared values, trust and access to target stakeholders. In March we ran a webinar and survey with Scottish Renewables where over 120 stakeholders provided views on the issues in the paper and submitted suggestions for how the barriers could be

addressed. Stakeholders confirmed that the current TNUoS model is a barrier to project development (84%), agreed with our findings (70%), and requires reform (93%).

We also gathered views on preferred solutions which included: no locational charge, using postage stamp methodology, cap TNUoS at zero with the removal of all negative charges, improving certainty, calling for urgent review of the current regime and changes to the Connection and Use of System Code (CUSC) methodology. This stakeholder insight was provided to policy makers directly and in consultation responses. We are now preparing a paper which explores the potential solutions and a paper specific to the TNUoS challenges for offshore wind. To show the utmost transparency we collated all stakeholder views

gathered in the engagement and published the findings in a stakeholder feedback report that included our resulting action plan. The report was well received across industry and was widely covered by media including reaching the front page of the Herald newspaper. The other Transmission Owners are considering adopting a similar approach.

- Parliamentary Questions raised in the House of Commons
- First Minister Nicola Sturgeon publicly called for TNUoS reform

"Well done. A great piece of work which validates what we have been saying to Ofgem for over a decade!" Renewable generation developer

Ensuring the Western Isles transmission connection remains on track to deliver stakeholder requirements

Objective 6

Stakeholder ask: A positive Needs Case decision from Ofgem on the Western Isles Transmission Link is conditional upon a revised Needs Case being submitted which demonstrates commitment of new generation. Our Western Isles generation connections customers and other stakeholders stressed the critical need to ensure our programme for delivery aligned to the expected delivery year for the next CfD auction (2026/27) to ensure developers meet the criteria to submit a bid and achieve the outcome required to meet the conditions required for Needs Case approval.

What we did: We updated our project programme to test whether the delay to the Needs Case decision would compromise the ability to meet the CfD date and confirmed that without preconstruction activity in 2020/21 this would be the case. As the CfD auction was delayed until December 2021, this would require preconstruction investment prior to knowing the outcome of the auction and whether this condition would be met. We approached Ofgem to explain the need for this investment in order to keep the project viable and maintain the ability to deliver the associated benefits. Ofgem

deemed this preconstruction spend uneconomic and did not approve additional expenditure. We subsequently engaged with the Scottish and UK Governments on this and were encouraged to ensure that the project remained viable due to its potential to deliver a significant contribution to renewable energy and net zero targets. As a result, the Transmission Investment Subcommittee approved investment in the preconstruction activity that will keep the project viable and the programme on track until the outcome of the CfD auction is known.

Supporting Orkney stakeholders in requesting a conditionality deadline extension

Objective 6

Stakeholder ask: A positive Needs Case decision from Ofgem on the Orkney Transmission Link is conditional upon us being able to demonstrate, by no later than December 2021, that no less than 135MW of new generation on Orkney has demonstrated a commitment to connect by having secured planning consent and undertaken a financeability audit. Generation customers on Orkney told us that COVID-19 restrictions meant they could no longer achieve planning consent by this date and asked us to support their request for an extension to the conditionality deadline.

What we did: We worked in partnership with SSEN Distribution to run roundtables with Orkney generation customers and the Orkney Islands Council to establish the cause of delays, the impact on ability to meet the conditionality requirements and an update from the customers on the capacity that they are seeking to connect. We used this information to check for consensus and subsequently

support the developers' request for Ofgem to grant an extension to the conditionality date, making clear to generation customers and wider stakeholders that any extension to the conditionality would have a corresponding extension to the project delivery programme, which remains under review. An extension to the deadline for meeting the previously set conditions to 31 December 2022 has been granted.

Outcome

- SROI: Estimated SROI of up to £9.84 per £1 over the life of the project based on CBA analysis quantifying network benefits, GB consumer welfare benefits and positive socio-economic benefits to Orkney. Through our engagement this year, we have ensured the delivery of these significant

- Allows time for developers to consider the outcome of grid charging reforms in their financial viability proposals.

Advocating for a planning framework that will deliver net zero

Objective 7

Stakeholder ask: Connections customers expect rapid connections and Governments expect faster infrastructure development to meet Net zero targets. Planning consents are a significant development challenge and are expected to become more challenging as infrastructure development increases.

What we did: In direct application of Objective 7 of our engagement strategy, we engaged with the Scottish Government on development of a planning policy that supports net zero. We provided specific information on the challenges and solutions including: views from our broad group of stakeholders on the criticality of timely

infrastructure delivery for achieving net zero goals; from communities on the need for early and coordinated engagement about the development required to meet net zero goals; and, from our supply chain on the need for clarity of pipelines of work to allow them to build capacity and resources for delivery.

Outcome

As a result of our action in highlighting the barriers and risks, the Scottish Government established a Major Energy Networks Projects Group to



Promoting Best Practice

World first SF₆ alternatives at 420kV provides global progress

Objective 7

Stakeholder ask: Our broad stakeholder group expects avoidance of SF6 installation as part of reducing our business carbon footprint. Our supply chain partners require practical commitment to high voltage application of SF6 in order to trial new solutions on the network.

What we did: In T1, we have an incentive to reduce SF6 leakage and have gone beyond this by adopting a policy of SF₆ avoidance. Following deployment of SF₆ alternatives at 132kV and 275kV in 2019/20, in 2020/21 we appointed GE Grid Solutions (GE) to develop and install the world's first 420 kV SF₆-free Gas Insulated Switchgear at Kintore using their Green Gas for Grid (g³). In doing so, we provided demonstration of market need, as well as a viable trial site, which were critical to the success of GE's application to the European Commission's LIFE climate action program which secured a £2.2m

award to help the development of the technology. Our g³ 420 kV, 63 kA gas-insulated substation circuit-breaker will demonstrate that q³ technology can be applied to all other high-voltage levels of Europe's electrical networks **We will be presenting this world first** project at CIGRE Paris in August 2022, promoting this best practice to an international audience. We also continue to promote our best practice on SF₆ alternatives through collaboration with other electricity transmission and distribution network operators, via the Energy Networks Association (ENA).

Kintore: the installation of g^3 switchgear will avoid the addition of roughly 350,000 tonnes of CO2 equivalent to the grid; Smaller substation footprint compared with air insulated alternatives (30:1) space saving. Wider Outcomes: EU's LIFE program recognizes potential of GE's Green Gas for Grid to help significantly cut global greenhouse gas emissions; the gas mass of g^3 high-voltage products has more than a 99% reduced CO₂ equivalent compared to SF₆

Educating peers on adoption of science based targets and delivery of emissions reduction plans

Objectives 1 & 7

Stakeholder ask: Share learning on how we achieved accreditation by the Science Based Targets Initiative of our Science Based Target (SBT) set in line with a 1.5 degrees target for climate change; share best practice on decarbonisation of our activities.

What we did: We shared our target setting methodology and learning from the accreditation process through Ofgem working groups for ED2, in meetings with Government, and with influential thinktank, Sustainability First. Following our leadership, all DNOs committed to SBTs for ED2.

We designed carbon reduction approaches that appropriately address trade-offs between reducing carbon footprint, operational processes and cost. We made a commitment to electrify 50% of our fleet by 2026, a serious challenge since our network in the north of Scotland covers areas with very limited EV charging infrastructure. We reviewed public domain data, engaged with impacted employees and with stakeholders from whole system solution groups including SSEN

Distribution to triangulate engagement findings. As a result, we established an internal EV working group and approved installation of 32 EV charging points at our substations. SSE Group joined The Climate Group's global EV100 initiative, which aims to make electric vehicles (EVs) 'the new normal' by 2030. For substations, we carried out over 50 site visits in the last 12 months to assess their suitability for installation of PV and modern insulation. To share our sector leading approaches, we established a Net Zero Substation collaboration group to bring all the TOs together to identify common challenges and possible solutions for delivering net zero substations across GB. The European Innovation Council (EIC) has now adopted the co-ordination group and will take the lead.

Outcome

- Improved air quality and reduced pollution in the communities we visit; CO2e saving of 240 tonnes per year by 2026.
- Decarbonisation of our substations and introduction of microgeneration will reduce the carbon footprint to around 2,000l. tn. CO₂e by 2026.
- SROI: £0.46 value created in excess of every £1 spent up to 2026, driven by energy savings, carbon emission reductions and air quality improvements from electrifying our fleet

Promoting net zero through COP26 partnership

Objective 1 & 7

Stakeholder ask: Promote net zero and share best practice on science-based targets

What we did: SSE Group partnered with the UK Government as a Principal Partner of the COP26 International Climate Change Conference in Glasgow. SSEN Transmission was the first electricity network to register a Science Based Target in line with a 1.5 degrees C scenario. Throughout 2020 and 2021 we are running a series of events and activities on the road to COP26. These events will increase awareness of, and commitment to, the development of the infrastructure required to enable net zero, promote best practice under the COP26 nature theme including our biodiversity net gain and compensatory planting initiatives, and build relationships with international stakeholders that would otherwise be hard for a small network company in the north of Scotland to reach

"I am delighted to announce our first sponsors for COP26, who have all shown ambitious climate leadership through setting net zero commitments and Science Based Targets. SSE is investing £4m a day in low-carbon energy and electricity infrastructure over the next five years" Alok Sharma, COP26 President

"Climate ambitions can feel a long way off, but we are acting now by investing £7.5bn over the next five years in vital low-carbon infrastructure for the UK and Ireland - supporting jobs and creating opportunities." Alistair Phillips-Davies, SSE Chief Executive

Delivering benefits to communities through compensatory planting partnerships

Planning consent conditions require us to provide a woodland planting strategy aligned with the Scottish Governments' Control of Woodland Removal Policy. Our target is No-net-loss of ALL woodland cover for new projects from 2021.

Stakeholder ask: We engaged with Scottish Forestry, Scottish Government and Forestry Land Scotland on design of our Compensatory Planting Strategy (CPS), our initial preference was to establish a Scottish Woodland Replanting Fund which would combine and aggregate the resources secured through replanting conditions within multiple consenting regimes but stakeholders asked us to consider delivery partnerships with third parties and private landowners.

What we did: Based on stakeholder preferences we developed a new robust CPS proposal which meets our obligations and our target and provides support to local stakeholders, approved by Tony Scott, Director of Capital Development and Delivery. We developed a partnership with Argyll and the isles coast and Countryside Trust (ACT) to carry out a test site for the CPS which will meet the bulk of

our replanting obligations with the remainder being delivered through partnerships with local landowners. A new Forestry Manager role has been created and appointed to lead the delivery of this strategy across all projects. Discussions have been held to explore future partnerships with 3rd sector organisations including: National Park Authorities and Community Trusts.

We have contributed £10,000 towards a newly created role in ACT for a Woodland Enterprise Coordinator to help deliver 50ha of the 272ha replanting needed on the Argyll test site. This partnership will also support the Alliance for Scotland's Rainforest goals. Delivery of our business replanting commitments -1275ha; additional benefit - non-invasive species, riparian woodland, broadleaved etc; SROI: £0.70 value forecast over the next 10 years in excess of every £1 spent, delivered by biodiversity and community benefits per hectare of woodland replanting

Stepping up efforts on diversity and inclusion

Objectives 1, 2, 5 & 7

Stakeholder ask: During 2021 we were acutely aware of the Black Lives Matter movement and the increase in Asian Hate crimes. Inclusion experts and spokespeople for these communities asked organisations to avoid performative allyship, and instead concentrate on supporting colleagues through meaningful diversity and inclusion programmes and active allyship.

What we did: We redoubled efforts on our existing "in, on, up" diversity and inclusion (D&I) programme which is delivering a financial return of £9.85 for every pound spent on inclusion and achieved us champion status in D&I from assessors, Equal Approach in 2019. New actions included: updates to our D&I training, new D&I resources and education materials, guidance on inclusion in virtual meetings, and running employee focus groups to better understand how colleagues across all underrepresented groups were feeling and what action they wanted us to take to make SSEN Transmission a more inclusive workplace. Feedback from these focus groups resulted in implementation of a reverse mentoring programme for senior leaders to be mentored by employees from under-represented groups to increase diversity of thought; and adoption of a new executive team objective for 2021 focused on "hiring difference" and making progress to our new inclusion goals. We also set up a Black and Ethnic Minorities Yammer group where colleagues share their thoughts, feelings and

concerns and provide support and guidance to each other. Our Director of Customer and Stakeholders was invited to join the group and has used her position on the People Subcommittee of the Transmission Executive Committee to raise issues from the yammer group. At grass roots level, employees in our book club decided to read books recommended by advocacy groups to educate themselves about structural racism and racism in the UK. To support our goal of hiring for difference and making opportunities available to underrepresented groups, we are advertising available roles in boutique and minority publications and agencies including Black Young Professionals, the Association for Black and Ethnic Minority Engineers and VERCIDA. We were highly conscious of the additional caring burden that fell on many of our employees as a result of the COVID-19 lockdown measures. To support these colleagues, we provided 10 days of emergency paid leave, flexible working arrangements and allowance for working while caring as long as it was safe to do so.

Outcome

Better employee understanding and awareness of structural racism and its impacts; improved diversity in recruitment; flexible and inclusive work environment for all employees; financial return of £9.85 for every pound spent on inclusion

Overcoming operational barriers to offshore grid coordination

Objectives 1, 2, 4 & 7

Stakeholder ask: To progress the use of meshed offshore HVDC grids for connecting offshore wind farms to onshore and interconnectors.

What we did: The National HVDC Centre, a collaborative test centre run by SSEN Transmission, joined a 4.5 years, €43 million, 34 organisation collaborative research project to advance the readiness of meshed DC grids, the PROMOTioN project. We led on demonstration of DC grid protection solutions developed in the project using hardware-in-the-loop testing on a real-time platform. To

promote the findings we hosted an event that brought together project partners, academics and stakeholders, where we demonstrated these HVDC grid protections and intelligent electronic devices. The deliverables and papers were also shared with manufacturers,

Transmission System Operators and offshore developers at the final project conference and published on the PROMOTioN website.

The Technology Readiness Level of the key enabling technologies have all been increased such that there is no longer a technical barrier to the creation of an offshore HVDC grid.

Operations and Land Access

Delivering a coordinated approach to wildfire response and asset planning

Objective 1

Stakeholder ask: The Fire Service has asked for a coordinated approach in responding to wildfires near our assets. Increased risk of wildfires in our area, due to the changing climate, is threatening employee safety and customer and consumer expectations on reliability of supply.

What we did: Our GIS and land teams analysed 10 years of wildfire data, requested and received from our partners at the Scottish Fire and Rescue Service, to create maps which show the highest wildfire risk areas. We are now using these maps as a tool to risk assess proposed substation locations. Recently, the proposed location of a new substation was changed from the initial preferred site based on the higher wildfire risk of the first option. We have shared these maps with the Scottish Fire and Rescue Service so that they can use them

for their own risk assessments, benefiting from the analytical expertise or our team which they did not have in their organisation. We also arranged to receive Wildfire Notifications from the Scottish Wildfire Forum. These notifications come into our Control Room, are passed to Safety representatives, and disseminated to relevant staff. **This ensures** we have advance warnings of any wildfires, and up to date information regarding any live fires near to our assets. This has ensured the safety of our colleagues, including in a recent wildfire incident on Skye.

Early engagement to protect assets from damage during third party developments

Objective 1 & 3

This engagement relates to instances where a third-party development has been proposed near one of our assets. Often in these instances we must object to the application because infringement on our infrastructure would create safety issues and if approved, can lead to damage to our assets.

Stakeholder ask: Our Stakeholder Advisory Panel, Local Authorities and other stakeholders recommended that we seek statutory consultee status (or an equivalent) given our role as an owner of critical national infrastructure. They also proposed that we make information on existing infrastructure more available to developers and local authorities.

What we did: We explored options with the Scottish Government on becoming a statutory consultee. It was clear that this approach would not be appropriate due to the constraints it would put on us. Instead, we designed more structured engagements with local planning authorities to ensure that we are informed of submissions at application stage. Aberdeenshire and Aberdeen City councils are now notifying us of planning applications. We have also engaged with Local Planning Authorities at various stages of their Local Development Plans. Feedback has been positive on us getting more involved in the planning process early. Resource of 1.5 FTE within the Land team has been allocated to identifying relevant planning

applications for developments in the vicinity of our assets and to act as a central contact, collating comments from specialist teams and submitting our response to the Planning Authority. To complement this, we are preparing an external policy and guidance document for landowners and developers, on what to do when a development is planned near to one of our assets. We are also formalising internal processes to ensure we work collaboratively with developers to find mutually acceptable solutions. We developed a proposal (out for acceptance) for sharing data on infrastructure locations with Local Authorities (while ensuring security of supply) so that they can see our data and we can automatically see their Local Plan data.

Sharing smart practice from our journey toward world class asset management and digitalisation

Objective 1 & 3

Stakeholder ask: Expert stakeholders including our Stakeholder Advisory Panel asked us to achieve top quartile performance in asset management to ensure high standards of service and cost efficiency for consumers. This supports our consumer ask for network reliability.

What we did: We set a target to become world class in asset management by 2026, achieving Top Quartile performance in the assessment of international TOs. We established an enhanced asset management team and asset management practices including new systems and reporting. We grew our Asset Management Team from 14 to 27; implemented new asset registers (Maximo and ArcGIS); developed and implemented a new Digital Strategy; provided executive briefings on Asset Management roles and responsibilities; over 50 people completed the Institute of Asset Management (IAM) Certificate training and four people completed the Diploma. Our 2018 assessment of Asset Management showed that the requirements reflecting future developments in "Data-driven

Asset Management" and "The Digital Utility" are learning areas for all, not only for us, so we wanted to share our learning and progress on this and our wider improvements to help inform others on the same journey. Our Asset Policy and Strategy Manager shared our learning on how to implement best practice in these areas at the International Transmission Asset Management Study (ITAMS) Conference in March 2021, with over 60 attendees, representing over 20 different transmission utilities from across the world. During the session we were singled out as the organisation making the most significant improvement in asset management performance in the 2 years since ITAMS 2018. We hope that other TOs will be motivated by our progress and adopt these measures to improve performance and efficiency.



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