

Document reference	Aug 2023
Revision	3 - Final
Function	Major Projects

Meeting	Beauly Community Liaison Group
Date	29 <sup>th</sup> Aug 2023
Time & Venue	7pm @ Lovat Hotel & Teams

#### Beauly CLG Attendees and Apologies:

Attendees	Representation
Cllr David Fraser	Cllr and Chair of Beauly CLG
John Stewart	Kilmorack Community Council
Steve Byford	Kilmorack Community Council
Bill Fraser	Kiltarlity Community Council
Graeme MacKay	Kilmorack Community Council
Cameron Kemp	Kirkhill and Bunchrew Community Council
Seona Fraser	Beauly Community Council
Paul Stirling	Strathglass Community Council
Duncan Fraser	Kilmorack Community Council
Lee Wilson	SSEN Transmission (Teams)
Kelly Scott	SSEN Transmission (Teams)
Greg Clarke	SSEN Transmission
Rob Slaughter	SSEN Transmission (Teams)
Sally Cooper	SSEN Transmission
Simon Johnstone	SSEN Transmission
Claire Goddard	SSEN Transmission (Teams)
Sophie Cheney	SSEN Transmission
Gillian Hurding	SSEN Transmission
Steven Miller	SSEN Transmisson (Teams)

#### Note of abbreviations.

CLG – Community Liaison Group SSEN T – SSEN Transmission OHL – overhead lines GI – Ground investigation SO – System Operator

#### 1.0 Introductions and agenda

# 1.1 Introductions and Agenda

- 1. Previous meeting notes, outstanding actions
- 2. Responses to Actions
- 3. Communications and expected process
- 4. Project Updates Wester Balblair
- i. Noise update
- ii. Beauly 132kV Redevelopment update
- iii West of Beauly Asset Replacement projects
- 6. The Pathway to 2030 Project Updates:
- i. Getting to Net Zero
- ii. New Beauly area substation/converter station
- ii. Spittal Beauly 400kV and Beauly Blackhillock 400kV projects
- iv. Beauly Denny upgrade/Fasnakyle
- 7. Issues arising Community
  - SSEN Transmission Concerns about Community behaviour
- 8. AOB

2.0

9. Date of next meeting



CLG member challenged June 2023 Meeting Notes and did not accept them. The member previously requested a paragraph was changed which SSEN T had noted differently and advised the Notes are not verbatim and are a summary. Chair suggested and SSEN T agreed to update June Meeting Notes as requested and to re-issue. Completed Action

SSEN T offered to record meetings going forward to have a reference back, this has been agreed going forward.

## **Previous Meeting Notes**

Number	Action / Update	Owner	Open/Closed
1.	Revised Terms of Reference sent to CLG	SC	Closed
2.	Noise monitors latest data, frequencies graph	RS	Open
3.	To request that The Council Environmental Health Team ensure community	DF	Long term open
	involvement in the 2023 noise review.		
4.	Invite SSER to CLG meeting	LW	Closed
5.	Update on community benefit	RH	Open
6.	Information about extent of disruption of undergrounding 132kV from	LW	Open
18	previous VISTA project		
7.	SSE long-term battery storage plans, CLG requested to understand this with	SC/LW	Open
	high level of GWs planned for connection.		l l
8.	Fasnakyle – land take required for new substation?	SC/SH/SM	Open
1.0	Fire security?		
9.	Response to CLG why HVDC is required at Loch Buidhe, which sites are	SC	Closed
	approved along the line and what is planned.		



Actions 1, 2, 6, 7,8 now Closed Additional Note – re Action 8, The Chair advised the Highland Council is setting up a working group to look at wildfires, to which he will part of and will update the Group.

# 3.0 Responses to Actions

Question	Answer
Action 7. What are SSE's battery storage plans with the high level of GWs planned for connection?	Any specific information regarding SSE Renewables plans regarding generation would need to be put to them. Battery developers as with other technology developers who require a connection to our network apply to the ESO who then passes this onto the Transmission Owner (such as us for the north of Scotland) who under their licence obligations are required to provide a connection.  The quantity of battery storage is determined by the market, with Generators reacting to incentives /stimuli provided by the Govt (OFGEM).
Action 8. the Cannich wildfire which went very close to the OHL that carrying out <u>fire fighting</u> by OHL structures became more dangerous, because of increased conductivity from smoke and steam	-If there is a sizeable fire, the smoke containing carbon might cause OHL tripping. Due to tower heights for 275/400kV there is less risk than with 132kV. Statutory clearances from ground to conductors are upwards of over 10m.  - Liaise closely with Scottish Fire service for issues arising that may compromise both personal safety and property, electrical connectivity and security of supply. The Fire Service have our control room contact numbers which initiates a response, liaise with commanders and take appropriate action to reduce the risk with the fire service - which could mean shutting down the network.  -First point of mitigation - Maintain 40m clear of vegetation either side of Beauly-Denny OHL and install access.
<b>Action 9.</b> Why is HVDC required at Loch <u>Buidhe</u> ?	It's not, only a substation is planned at Loch <u>Buidhe</u> . Converter stations are required at Spittal, Beauly and Peterhead to convert electricity from the subsea cables that transport electricity from the Western Isles, between Spittal and Peterhead and from Peterhead to the South. These key locations also allow offshore and onshore renewable generation to connect to the reinforced electricity network.

3.1 Action 9: CLG asked whether each new Loch Buidhe substation would not just be a substation but also have series of OHLs from onshore renewable generation. SSEN T explained that is correct in theory and depends on which Generators require a connection to the Grid and to be connected to Loch Buidhe Substation (SS) — these being either overhead line (OHL) or underground cable (UGC) connections. Due to the volume of power required to be transmitted additional infrastructure is required and a new substation to house it.

SEEN T explained existing substation is 275/132kV and new one will be 400kV. A 400kV line will go from Spittal to Beauly. An additional busbar is needed at 400kV and needs to connect into existing 275kV connections so new transformers are going in to connect to the existing connections. Approx. size of new substation as of Feb 2023 consultation booklet – 463m x 311m.

## 4 Additional Questions and Requests Post Meeting

_	- In our Spittal-Beauly project update in May 2023, we set out the established industry wide
The origins of the Spittal to Beauly, Beauly to Peterhead line and the Fanellan and Keith substations are documented as required by National Grid ESO and they or the UK Ministers directed the <u>timescale</u> but we would like to know who decided the route, the method and the power requirements and more important did this get audited by an independent engineering body to make sure it was the best option for the residents along the line. Or did the Scottish Government and local Councils simply accept that SSEN have pursued the best and most profitable option	processes to identify the need for investment in new or upgraded infrastructure to meet changes in electricity generation and demand: <a href="consultation-response-may-2023.pdf">consultation-response-may-2023.pdf</a> (ssen-transmission.co.uk)  Transmission Owners (TOs) develop system reinforcement options to address network constraints and enable forecast changes in electricity generation and demand – these solutions include the broad routes and technology choices  The ESO then assess these system reinforcement options through the Network Options Assessment (NOA) process and make recommendations as to which options should proceed  In July 2022, the ESO published the Holistic Network Design Pathway to 2030, which included the outputs from the NOA 2021/22 refresh, setting out the onshore and offshore network requirements to meet the UK Government's 50GW of offshore wind by 2030 target  The independent GB energy regulator Ofgem approved the Need for these projects as part of its Accelerated Strategic Transmission Investment (ASTI) framework decision in December 2022  Transmission Owner proposals are not subject to audit by independent engineering bodies  The Scottish Government's Energy Consents Unit determine our Section 37 applications for new overhead line infrastructure, ultimately determining whether approval is granted for the final design  Local Council's determine the outcome of our Town and Country Planning applications for substations, and are also a statutory consultee for Section 37 applications

4.1 The CLG asked if SSEN T proposals are assessed or challenged? SSEN T explained that the Energy Supply Operator (ESO) and the regulator Ofgem independently assess and oversee the approval of projects. SSEN T

confirmed that its` Transmission engineering teams have a series of meetings with Ofgem who review and assess design decisions put forward. Both the technical and economical processes are checked by Ofgem.

- SSEN T further explained that National Grid ESO (NGESO) will become a public body and going forward will be called the Future System Operator (FSO), this new body will be separate from National Grid PLC and will have additional responsibilities it is currently going through the legislative change. NGESO is not currently a public body.
- The CLG enquired about the battery storage applications coming through in the area saying it didn't make sense that SSEN T say they have no influence as to where battery storage (BS) is located. SSEN T explained it has nothing to do with the provision of BS which is part of the Pathway to 2030 process based on the Holistic Network Design (HND). SSEN T went onto say it is about enabling forecast changes in generation and demand, with provision of storage for surplus electricity a massive element in predicting what Transmission infrastructure is needed in places where it's saved to where its required. The CLG said they find this illogical and not sure what the answer is, but it didn't make sense.

SSEN T responded that as the Transmission Owner differentiating between energy sources does not take place, whether it is a connection for a windfarm, hydro power station, coal generator, nuclear station, battery provider. A battery operates as a customer taking power from the system and operates as Generator putting power back into the system. So, if battery provider wants to connect to the network, as with all other generators, SSEN T is obliged under its licence to provide a connection, this is a legal requirement. The System Owner has established system planning processes and looks at the System in its entirety, so the supply and demand including battery storage and pumped storage and review the amount of energy from different sources that is coming online. This is all considered in the network planning processes that identify the Need for the Grid reinforcements that the Transmission Owners must take forward to meet the future changes in generation and demand. This includes System Operator factoring locations of battery storage in their network planning processes, SSEN T don't define locations or where they connect to the network. As Transmission Owner it is obliged to provide a connection offer and if they accept connection offer SSEN connect them to a network notwithstanding the process to get consent for the infrastructure needed to enable the connection or approval from the Regulator for the expenditure.

With regards to location of these, closest to established infrastructure is not always best.

(For the Generator it depends on what part its closest to on the network, as there are different voltage lines, different substations (SS) and different transformer ratings so it might be close to a particular line into a particular SS but if an upgrade is required to facilitate the additional power from the Generator it might be a more expensive and complicated connection than if the Generator were to locate in a different direction and connect into a bigger substation. This is factored into different options.)

The CLG added if HND not required to provide location of storage, then it's not a good design and who can provide the answer.

SSEN T again reiterated that the SO (System Operator) already considers these factors in their network planning processes and these processes have informed this HND. Advising the CLG that the question is better directed towards the SO. The CLG said the area is inundated with BS applications; the Chair interjected that this question should be directed to SO to find out what allowance is made for battery storage and where.

The CLG said at the recent Kate Forbes MSP meeting, community said that Ofgem approving cheapest options needs to be addressed and thought that KF requested SSEN T to find way of opening of dialogue with Ofgem for them. The CLG stressed communities don't want the cheapest option they want the most acceptable option.

UPDATE - On checking back Meeting Summary from KF confirmed that KF office were taking forward this Action to write to Ofgem, ESO and UK/Scot Govt.

The CLG wanted to know what the situation would be if a BS generator wanted a connection which involved going over private land, SSEN T explained that would try to find a suitable/alternative route. There is the Compulsory Purchase Order option if unable to find alternative route, though SSEN T prefer not to use this power, preferring instead to come to an agreement. SSEN T reiterated it does not dictate the locations for connection offers.

The CLG said there is perception that SSEN T proposals are not just the cheapest but one that provides most profit for SSEN T and they require reassurances that communities will be provided with the best solution, irrespective of profit.

SSEN T again explained that independent SO carries out the assessment of Need and the independent Regulator provides the approval of Need and again referred the CLG to pick this up with these bodies if they still question this process. SSEN T have put forward the solutions required to meet the changes in electricity generation and demand based on what is planned for 2030 with potentially more after this to reach net zero.

SSEN T said they had already explained this process and shared Initial Response to Consultation in May. This is also on the Spittal – Beauly website, <u>Spittal – Loch Buidhe – Beauly 400kV Connection - SSEN Transmission</u> (ssen-transmission.co.uk)

Even though the CLG want SSEN T to explain these processes which they are trying to do, SSEN T advised having explained this already that there is a huge amount of info in public domain about these processes.

The Chair stressed the need to build the trust which the communities require on the proposals being developed and highlighted that the meetings are very good with the open-ness of scepticism people have so that it can be fully discussed at these times and there's also this opportunity with the working group with Kate Forbes.

The CLG said the Scottish need already met by renewables and they don't understand why anyone can put in an application for a battery farm and SSEN T is duty bound to connect whether required or not? SSEN T responded that in theory that is correct, obligated under licence to provide the connections, where the connections trigger the need to provide reinforcements SSEN T have to develop with the SO and possibly with other Transmisson owners the wider reinforcements, if Regulator does not approve the Need SSEN do not get the expenditure so the project is not built. In the case of the 2030 HND the regulator has approved the Need for these projects. The power might not all be needed in Scotland today, but if Scotland is going to reach Net Zero it needs to decarbonise heat, transport, so the generation that is getting built and is being transported will go to Scottish needs as well as England and Wales. It is an integrated GB transmission system, power will flow in both directions so when there is low wind output in Scotland, power will be imported from South and vice versa.

SSEN T explained they are one part of this energy jigsaw and do not determine the mix or the generation locations.

CLG said they wish to have a clear picture of how many windfarms, turbines etc are required to meet the targets, SSEN T informed them it's difficult to answer because technology is developing so wind turbines/engines are getting bigger, there's less of them and their output is larger, their location depends where the Generators decide to locate them. These are policy decisions needed at a political level, SSEN T have to provide the connections irrespective of generation location and if that involves building strategic reinforcements to transport that power that is what has to be done. SSEN T went on to explain that there is movement towards Spatial planning of the system so where in theory new generation is one place, an

example of spatial planning is Scotwind. SSEN T are now required to develop the network infrastructure to enable transportation of power from this area of generation to areas of demand.

SSEN T repeated the point that a lot of the CLG concerns re offshore wind farms etc are policy based and not for SSEN T to answer.

CLG asked policy related questions such as when the wind is not blowing and then relying on nuclear power, nuclear being very expensive it will be very costly to provide non fossil power when wind not blowing. SSEN T stated as Transmission Owner it's not its place to answer and said SO is asking what nuclear is expected to be built in the UK and where is it to be located, how will it affect supply/demand. The Climate Change Committee forecast electricity demand to increase 50% by 2035 and double by 2030.

The CLG said the perception is that SSEN is 1 company with 1 part of the company services the other part and the proposals are being unilaterally decided by SSE and driven by what they can see by maximising future profit opportunity for SSER to connect onshore wind farms. SSENT responded they do not set these industry rules nor make decisions on behalf of independent SO or independent Regulator. The process is underpinned by regulatory framework by UK Govt.

#### 5.0 Additional Questions and Requests Post Meeting

SSEN T updating the CLG in advance re strategic business updates Re removal of automatic PLI trigger representation to the Net Zero, Energy and

- 1. Under such circumstance, why was no prior mention made to the CLG that SSEN had submitted to UK Government, some 6 months prior, their wish to change this element of the S37 framework?
- 2. Under such circumstance, why was no prior mention made to the CLG that SSEN Scottish NPF4?
- 3. Have one or both proposed changes been previously discussed with the Highland Council?
- 4. Rather than sharing with the CLG beforehand, why has this been first known about by media releases?

The remit of the CLG is to provide project related information as set out in the Terms of Reference and to work collaboratively together, rather than update on strategic business decisions. Our CLG agenda (and subsequent staffing in attendance) is very much focussed on specific project related updates.

However and in the interests of transparency, to further explain the background to these matters, it is widely recognised that the timely delivery of grid is one of the main barriers to the delivery of UK and Scottish Government energy targets with industry and Government exploring ways to accelerate delivery of grid infrastructure.

On 18 January 2023, a workshop was jointly facilitated by the Scottish Government, Scottish Power Energy Networks and ourselves entitled 'Accelerating planning consents to facilitate the delivery of a Net Zero electricity network'. All local planning authorities and statutory consultees were invited to discuss the collaborative delivery of Scotland's climate change priorities. Reform to the Section 37 consenting process was one of many topics discussed openly at the workshop and was supported by the majority of attendees.

Then in April 2022, as part of its British Energy Security Strategy the UK Government announced its intention to appoint an 'Electricity Networks' had submitted to the Scottish Government their wish to make important changes to the published on 4 August 2023, Nick Winser, the UK Government's Electricity Networks Commissioner, included a recommendation that:

> The automatic requirement for a public local inquiry when the planning authority objects should be removed from the Electricity Act 1989. An alternative process should be introduced that would allow Scottish Ministers to hear more about a specific issue raised by statutory consultees as an alternative to a public inquiry.

Our response to Nick Winser's recommendations can be found via the following: https://www.ssen-transmission.co.uk/news/news-views/2023/8/nick-winser-has-spoken-its-now-time-for-government-to-act/

On the National Planning Framework 4 (NPF4), we have proposed changes to the wording around ancient woodland to account for instances where impacts are unavoidable. It is important to note that whilst avoiding impacts on ancient woodland is a key priority for SSEN Transmission, due to the extent of ancient woodland cover across the north of Scotland there will be circumstances where this is unavoidable.



SSEN T stated that the reason for removing the automatic trigger is to accelerate Grid to achieve Govt targets and went on to explain that the formation of the CLG and the focus of it is on local projects and impacts such as the Beauly – Denny etc. SSEN T have never previously considered the CLG forum appropriate to share business strategy, not for reasons of secrecy but for reasons of not being appropriate for the CLG as the focus of the group is on local projects. SSEN T added that staff working at local project level are not involved in strategy discussions and are not party to those conversations.

In the above it has been explained why these policy changes have been proposed and the reason is its widely acknowledged that Grid and the lack of infrastructure is seen as the biggest barrier to reaching Net Zero targets, there is not enough infrastructure to double electricity by 2050 as told by the Climate Change Committee. SSEN T is asking how a quicker way can be found to get Grid on the system. This is also outlined by Nick Winser's independent recommendations.

The CLG asked to be informed of any policy changes. Community Councils (CC) said they consider applications, the framework is a process that exists where they have a system that lets them know it's going to go to PLI allowing it to be explored in a legal environment. With the removal of a trigger then control is removed from CCs and the local authority and continued to say it is not playing different ballpark but playing a different

game. SSEN T agreed it is for the UK Govt to make any changes, they might not make these changes, it sits with them to decide.

Action - Chair to feedback on the stance of The Highland Council. The Chair stated that the CLG need to be informed and kept updated about legal reforms to achieve Govt ambition.

# **Additional Questions and Requests Post Meeting**

#### Question

6.0

#### 1. Please provide a reasonably-sized map of the Scottish Area showing:

- a) all existing trunk power distribution corridors (OHL, undergrounded, and subsea), whether each is AC or DC, 132 or 275 kV, and its power-carrying capacity in GW
- all additional trunk power distribution corridors which form part of SSEN's "Pathway to 2030" proposals (OHL, undergrounded, and subsea), whether each is AC or DC, 132, 275, or 400 kV, and its power-carrying capacity in GW
- c) locations and anticipated footprint area of all additional substations which form part of SSEN's "Pathway to 2030" proposals
- d) all constructed, consented, and applied for windfarms (onshore and offshore) and their rated output in GW
- e) battery or pumped storage power storage provisions or recommendations arising from the Holistic Network Design process

#### 2. Please provide a reasonably-sized map of the entire UK Area showing:

- a) The principal existing trunk power distribution corridors (OHL, undergrounded, and subsea), whether each is AC or DC, 132 or 275 kV, and their power-carrying capacity in GW, currently utilised to transport power generated in the Scottish Area southwards
- b) Any supplementary principal trunk power distribution corridors (OHL, undergrounded, and subsea), whether AC or DC, 132, 275, or 400 kV, and their power-carrying capacity in GW, required to transport the significant amounts of power to be generated in the Scottish Area to the areas where it will be needed

#### 3. The mechanism by which SSEN has validated its proposals for the "Pathway to 2030". Please provide:

- Details of consultations carried out with local authorities, communities, statutory consultees, NGO's and other agencies
- b) Consultation responses received from those who were consulted
- c) Any subsequent assessment report prepared by OFGEM
- d) The OFGEM decision, and to whom this was copied.

#### Answer

1a/b/c&2) In progress; adding all info on a standalone map would likely render it unreadable and we are currently considering the most effective and clear way to present this information. For now, please see following slide for map of existing Main Electricity Transmission System.

1d/e) All transmission contracted wind farms, battery storage, pumped-hydro storage and other electricity generation applications are held on the ESOs Transmission Entry Capacity (TEC) Register. As per the above, we are considering how we can best present this information in the most effective and clear way.

The onshore reinforcements recommendations set out in the HND were informed by established industry electricity network planning processes. Whilst the main driver of the HND is to enable 50GW of offshore wind by 2030, these established network planning processes consider general impacts from all generation and demand technologies, including battery and pumped-hydro storage. However the HND did not make any specific recommendations regarding storage. Storage originates from developers via connection requests. There is no single or separate plan for storage currently.

3) As set out in Slide 5, we submitted to the ESO options to address system constraints and to enable the future connection of renewable electricity generation across the north of Scotland. The ESO then assessed these options and made a series of recommendations on which options should proceed. Ofgem then approved the need for these projects, following a period of consultation.

Now the system need has been established we remain committed to ongoing and extensive consultation to help inform the detailed network design. This includes local authorities, communities and statutory stakeholders. As part of our project development process we will set out in due coursed details of our consultation process, a summary of feedback received and how this has been considered.

We are not in a position to comment on the consultation or decision making processes, including how this has been communicated, of others (i.e. the ESO, Ofgem).

- 6.1 SSEN T explained that it is not a straightforward request for maps showing the energy flows etc which needs to be worked through. ESO forecast supply and demand which necessitates the new infrastructure being taken forward. CLG said they asked for map last April showing the energy flows currently and required in 2030, CLG don't feel it's their job to find the information and they want to see proof its required. SSEN T provided a holding response and are trying to present this info for them in a useful way— it includes consideration of different technologies.
  - ACTION SSEN T to inform when this map will be available. Update Maps will be available end of Oct
    System planning team can provide the map comparing electricity transmission now and what is
    planned by 2030, showing the trunk network what is required around the UK/Scotland including
    ACDC. To show what's connecting where and the volume of power and what is planned to connect at
    and the current capability limits of the existing network that's preventing the existing network
    accommodating that power.

SSEN T advised the CLG to read the ESO 10-year statement. This clearly shows the network requirements and arrows showing general direction of power south. SSEN T will show map showing 2030 network plan for Scotland in the type of format to the one available in this slide pack. CLG agreed that's what they would like this and the UK map sitting on top, so the CC can explain to those in the Communities who question the Need by seeing how and why its required.

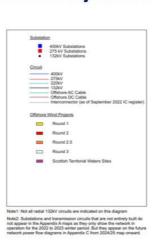
# **Main Electricity Transmission System**

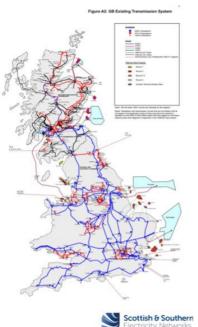
The map and key are taken from National Grid ESO's Electricity Ten Year Statement (Appendix A):

https://www.nationalgrideso.com/research-andpublications/electricity-ten-year-statement-etys/etys-2022-documents-and-appendices

https://www.nationalgrideso.com/document/275581/do

Please note, in England and Wales, 132kV network is operated at electricity distribution level and is therefore not shown on this map





7.1 Map above shows current electricity network across GB, It is to be noted that in England /Wales 132kV infrastructure operated by DO's not TO's, which is why no black lines on England/Wales map. As map shows, lots more 400kV inf in England/Wales to reflect the bigger demand and historical heavy generation assets on the system -e.g., coal, gas, nuclear etc. Holding response for now. SO and the independent Regulator would not have recommended or approved these if not needed.

**Post Meeting Note** – please note that overall design is not just about the power flows, but also about the network interconnectivity. One of the key drivers for a transmission network is reliability ('keeping the lights on'), so SSEN T have to design for at least any one part of the system being out of service at any given time (either due to planned maintenance or unplanned failure of some sort) and still deliver power. In practice, multiple projects / maintenance activities mean we usually have multiple parts of the network out at any given time, but in a carefully controlled and coordinated manner, with contingencies in case there was then an additional unplanned fault elsewhere. (From a project perspective, SSEN T are closely scrutinised on this and it is common for some design options to be rejected due to potential outage requirements being too onerous.) without this additional factor, the power flows in isolation may appear as overdesigning the network.

9.1

# Additional information which may prove helpful

Helpful for	Link(s)
The most up to date information regarding developer (inc onshore and offshore) projects looking to connect to the network, their capacity, who the developer is and where about on the network they are looking to connect	ESO Data Portal: Transmission Entry Capacity (TEC) Register - Dataset   National Grid Electricity System Operator (national grideso.com)
Gaining insight on what changes are likely to occur in regards to Transmission network deployment in order to meet the UK and Scottish Governments energy targets	Accelerating electricity transmission network deployment: Electricity Networks
Viewing both their decision, and their consultation regarding accelerating regulatory approval for the 'ASTI' projects (our projects under ASTI are what we refer to as the Pathway to 2030 projects).	Consultation on accelerating onshore electricity transmission investme L Ofgem Decision on accelerating onshore electricity transmission investment   Ofgem
Viewing multiple maps relating to all projects including the other Transmission Owners	https://www.nationalgrideso.com/document/262981/download
Accessing the full report (or summary report) regarding plans to facilitate the connection of 23GW wind, helping to deliver the Government's ambition for 50GW connected offshore wind by 2030.	The Pathway to 2030 Holistic Network Design   ESO (nationalgrideso.com)
Finding out more about the four different pathways for the future of the whole energy system out to 2050, the requirements under each pathway, and the forecasted changes in supply and demand.	https://www.nationalgrideso.com/document/283101/download
Understanding the UK Governments strategy for how Great Britain will accelerate homegrown power for greater energy independence and any associated impacts on transmission operators	British energy security strategy - GOV.UK (www.gov.uk)
SSEN Transmission's position on the outcomes of the report	Nick Winser has spoken, it's now time for Government to act - SSEN Transmission (ssen-transmission.co.uk)
	The most up to date information regarding developer (inc onshore and offshore) projects looking to connect to the network, their capacity, who the developer is and where about on the network they are looking to connect  Gaining insight on what changes are likely to occur in regards to Transmission network deployment in projects meet the UK and Scottish Governments energy targets  Viewing both their decision, and their consultation regarding accelerating regulatory approval for the 'ASTI' projects (our projects under ASTI are what we refer to as the Pathway to 2030 projects).  Viewing multiple maps relating to all projects including the other Transmission Owners  Accessing the full report (or summary report) regarding plans to facilitate the connection of 23GW wind, helping to deliver the Government's ambition for 50GW connected offshore wind by 2030.  Finding out more about the four different pathways for the future of the whole energy system out to 2050, the requirements under each pathway, and the forecasted changes in supply and demand.  Understanding the UK Governments strategy for how Great Britain will accelerate homegrown power for greater energy independence and any associated impacts on transmission operators

9.0 Recess - SSEN T were asked to leave the room while the CLG conferred.

Part 2 The Chair stated that the CLG meetings are not working, trust needs to be built. Going forward meetings need to be effective, and the Group needs the opportunity to influence, Chair asked to think for solutions how meetings can be more effective.

SSEN T explained that its communications are required to be coordinated and we have an obligation to all our stakeholders not just the CLG, so if advance information is shared ahead of going into the public domain SSEN T also require trust from the Group to respect a degree of confidentiality so as not to confuse our messaging or put SSEN T on the back foot, the CLG need to understand these challenges. SSEN T said that finding the solution for the format of meetings should be shared with the CLG, as SSEN Tand they need to know what the CLG is looking for to make the format of meetings work.

Action – CLG to feed back on how they see these meetings being more effective.

Community benefit – The CLG suggested any community benefit should be money spent on projects producing fair results and commented that putting it up front is just a bribe that will divide communities. SSEN T responded that the aim is to provide both community benefit and a fair project design for communities, stressing that SSEN Twish to work with communities during the development of these projects to achieve this

# **Communications and expected process**

· Community Item on the Agenda



# **Project Updates: Wester Balblair**

- Noise Monitoring at the substation
- Beauly 132kV Redevelopment latest
- West of Beauly Asset Replacement/Glen Strathfarrar



# Noise Monitoring Monitor has been in position since April, though unfortunately we suffered a data loss for a number of weeks. This is because the data card started to overwrite previous data. Once this was recognised, personnel were despatched to replace the card. BV has been requested to carry out more regular checks, to ensure doesn't happen again. Data from latest report continues to show similar patterns and ranges as previous periods. Data from latest report continues to show similar patterns and ranges and previous periods. Please note above graph shows weekly averages.



# Noise Monitoring

- · Whilst the representation on the previous graph was averages, we can interrogate the data for more details.
- BV have confirmed we can extract frequency data and as we would expect for a substation, there is a clear signature at 100Hz around 45-50dB(A). There are then two others at 200Hz and 315Hz around 30dB(A). We know from previous work that SVC can show characteristics around 315Hz, 400Hz and 500Hz.
- These values are constant throughout the measurements and generally become tonal at night as external noise sources reduce; they are however masked from dawn and through the day by other noise sources, due to higher local activity (mainly traffic noise).
- This pattern is clear from day one of data collection and is expected to have more influence on the receptors depending on weather conditions <u>e.g.</u> south winds carrying the signal towards the community. BV state that "there is no obvious change in the noise data since we started measuring".
- During last CLG, the period 9<sup>th</sup>-11<sup>th</sup> June was specifically mentioned as the substation noise being noticeable. BV have scrutinised these dates and could not discern any unusual behaviour from the substation. We note it was the weekend (less general activity in the area including reduced road traffic) and southern winds could have helped carry noise towards Wester Balblair.



The CLG said previous weekend, noise heard at 2am and 3am was loud and tends to fluctuate, it was quiet the weekend prior. Noise still there and not as loud.

SSEN T reiterated as explained at previous CLG meetings the point will not be reached whereby there will be no noise at any time. The CLG confirmed it is occasional and roughly the same level, saying it depends on wind direction, if west wind noise is worse and if low cloud. It is heard under certain meteorological conditions. SSEN T understand from what is said that there is less fluctuation of noise as previously heard, when there is less `human` noise, for example when there is less traffic it is more audible.

# **Beauly 132kV Redevelopment Project**





13.1

Beauly 132kV Redevelopment Project

#### **Progress**

- Compound Office & Welfare
- $\circ\,$  Main Compound set-up complete & Temporary Compound Demobilised
- · GIS Building
  - Structural Steelwork 100%
- ° Cladding 85% Complete (Gable cladding to be complete once 1st floor slab is cast.

#### Look Ahead (3 month main activities)

- Complete GIS building (wind & water tight)
- M&E fitout to GIS Building
- · Delivery of GIS equipment







13.2

# Beauly 132kV Redevelopment Project Community Engagement

#### **Muirtown Primary School**

On 12th June, the SSEN T Beauly site team together with our Contractor SiemensBAM attended Muirtown Primary School to deliver a class to Primary 1-3 pupils. We discussed the dangers of electricity in the home and outside. The pupils had the opportunity to participate in a "spot the hazards" game, the children were really engaged.

Our site BAM Ecologist also came along to provide the pupils the opportunity to "spot the animals" that have been encountered during construction and to learn about their habitats. These animals included; bats, badgers, red kites, water-voles, field-mice and hares. The pupils had a good understanding and this created great discussion, involvement and the session finished with a drawing competition.

Overall, we had a great day, and it certainly was a change from our day job. The teachers and pupils were very grateful for our input and engagement, all pupils received a SSEN T goody bag.



13.3

# Beauly 132kV Redevelopment Project Community Engagement



Scottish & Southern Electricity Networks 13.4

# Beauly 132kV Redevelopment Project Community Engagement

#### **Beauly Primary School**

- School engagement began in May with a meeting with the Head Teacher to find out how we could provide support.
- On the back of this and together with our Contractor (BAM) we have built a play area and sand pit enclosure for the Nursery children.

#### Work placement

 SSEN T have provided a Summer placement for an engineering student. They were tasked with measuring up and producing a drawing for the enclosure. This was constructed during the summer holidays to minimise disruption to the school and was handed over to the Head Teacher on 14th August just before the school return from summer holiday.

We are currently organising further engagement with Beauly Primary School and hope that this can be implemented in October 23.





14

# West of Beauly – Asset Replacement Projects (including VISTA Glen Strathfarrar)

#### **Asset Replacement:**

- · Ongoing environmental surveys at all sites
- · Ongoing noise monitoring for closest residential properties
- Aigas an alternative site under consideration for Aigas, site selection to be concluded
- Kilmorack site located in scrubland
- West of Beauly Asset Replacement Projects 3<sup>rd</sup> consultation event to take place end of 2023/early 2024.
- Glen Strathfarrar VISTA Public consultation event due to take place late 2023

#### VISTA:

- 4km of new 132kV underground cable replacing existing overhead line within Glen Strathfarrar National Scenic Area (NSA)
- Primary objective of VISTA is to use the Ofgem funding to deliver the maximum benefit for nationally designated landscapes in the north of Scotland transmission network.
- See Killin VISTA as example:
   VISTA Killin SSEN Transmission (ssen-transmission.co.uk)



SSEN T informed the CLG that dates for these next consultation events have the potential to change due to design delays from Distribution colleagues. There has been programme slippage with designs and layouts more difficult than hoped. It is reacting to feedback at Kilmorack by moving the proposed site away from road and trying to avoid ancient woodland to underneath OHL so diversion work may be required.

# Pathway to 2030 Project updates

- -Achieving Net Zero and Energy Security: Further context on the need
- -Site and Route selection update
- -New Beauly area Substation/Converter Station
- -Spittal Loch Buidhe Beauly 400kV OHL and Beauly Blackhillock 400kV OHL
- -Beauly-Denny circuit upgrade



15.1

# Why are these projects needed?

#### To deliver UK and Scottish Government net zero and energy security targets

- ScotWind leasing round (Jan 22) delivered seabed leases for up to 28GW, vastly exceeding expectations (10GW)
- British Energy Security Strategy (April 22) 50GW 2030 offshore wind targets (UK target), including current 11GW Scottish Government target – to accelerate net zero to deliver homegrown, low-carbon, affordable energy independence
- National Grid Electricity System Operator led Holistic Network Design (HND) (July 22) will enable circa 11GW of ScotWind by 2030, key to deliver 50GW by 2030
- Ofgem approval of need for HND projects (Dec 22) as part of its Accelerated Strategic Transmission Investment (ASTI) framework decision













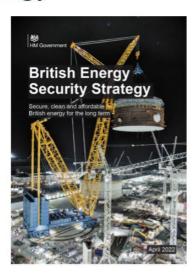
15.2

# The British Energy Security Strategy

This plan comes in light of rising global energy prices, provoked by surging demand after the pandemic as well as Russia's invasion of Ukraine. This will be central to weaning Britain off expensive fossil fuels, which are subject to volatile gas prices set by international markets we are unable to control, and boosting our diverse sources of homegrown energy for greater energy security in the long-term.

Accelerating our domestic supply of clean and affordable electricity also requires accelerating the connecting network infrastructure to support it.

https://www.gov.uk/government/publications/british-energy-security-strategy





15.3

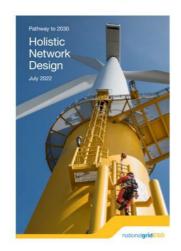
# The Pathway To 2030 Holistic Network Design

The Pathway to 2030 Holistic Network Design (HND) is a major step for Great Britain in delivering cheap, clean energy from offshore wind.

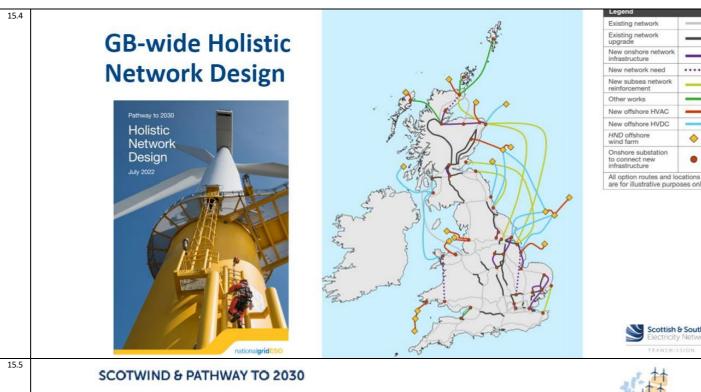
It sets out a single, integrated design that supports the large-scale delivery of electricity generated from offshore wind, taking power to where it's needed across Great Britain

The HND provides a recommended offshore and onshore design for a 2030 electricity network, that facilitates the Government's ambition for 50GW of offshore wind by 2030.

 ${\it https://www.nationalgrideso.com/future-energy/pathway-2030-holistic-network-design}$ 









Map showing SSEN T projects required to take forward with the Scotwind leasing round outcome, not all these sites will be taken forward as part of the HND process, SSEN T will try to visualise on the map requested by the CLG the Scotwind sites taking forward to 2030 and where they are connecting to on the onshore system that driving these reinforcements.

Note -This is partly why a map showing power flows possibly still would not demonstrate the need as clearly as CLG might expect as it might be assumed everything is in service, so potentially it might look like overdesigning.

SSEN T want to share the information in a helpful and simple way so all can understand. ACTION by SSEN T

15.6 **Accelerated Strategic Transmission Investment** The British Energy Security Strategy set out the Government's ambition to connect up to 50GW of offshore generation to the electricity network by 2030. Facilitating this ambition will require significant reinforcements to the onshore electricity transmission network and a change to the current regulatory framework in order to accelerate delivery of large projects. In August 2022 we consulted on how Ofgem could support the accelerated delivery of the strategic electricity transmission network upgrades needed to meet the Government's 2030 renewable electricity generation ambitions. This document contains our decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework. We set out the initial list of ASTI projects, our decision on exempting strategic projects from competition, the new process for assessing and funding ASTI projects and the range of measures we are introducing to protect consumers against additional risks that changing the process brings. https://www.ofgem.gov.uk/publications/decision-accelerating-onshore-electricitytransmission-investment Scottish & Southern Map above shows Ofgem approved sites to reach 2030 targets. 16 Site and route selection update Ground Investigation and Survey Work: Whilst initial surveys will prioritise routes and substation locations which scored best based on our initial assessment of the environmental, communities, technical and economic factors, additional routes or substation sites may also be investigated as we continue to consider feedback received through our consultation and ongoing community engagement

· Site selection process is still ongoing:

Formal consultation is being undertaken with THC over the next month and the written feedback will be factored into our final decision making. This will consider our original options plus additional options suggested by both THC and community sources.



# **New Beauly Substation and Converter station**

#### Activities completed since last CLG:

- Breeding bird & ecology surveys
- Ground investigations Contractor appointed (BAM), site set-up and GI commenced
- · Design consultant appointed
- · Continue to consider feedback
- Assessments of alternative options near quarry complete, including option to extend existing Wester <u>Balblair</u> and the split site option.

#### **Next Steps:**

- · Consultation with THC on site selection
- Ground investigations conclude end Sept/ear Oct
- Site Selection conclusion
- Report on Consultation issued
- Engagement with stakeholders regarding site selection conclusion and Report on Consultat
- Continuation of ecology/ bird surveys
- Baseline noise monitoring starts

#### SAFETY REMINDER: Ground Investigation Works at Fanellan

- Operational CDM site
- · Members of the public must adhere to signage
- Additional security measures employed due to incident to protect the public and our operatives



-The CLG replayed drilling works recorded as part of the GI works at Fanellan to which SSEN T said they were fully aware of the noise intrusion; apologised and said they should have anticipated the noise levels and will be visiting properties concerned.

-SSEN T informed the CLG that they are meeting with GI contractors and will highlight the sensitivities of the area around the cottages, be expected to act. Community asks re supply a contact number.

**Action to provide contact number for contractor.** This has been Actioned and shared with the nearest residents

SSEN T explained that detailed GI is only carried out on 1 site initially to verify what the geological maps tell us. A vast amount is already known about the quarry. SSEN T informed the Group that feedback shows there is not a uniform community view on site selection and there is conflicting feedback.

#### Kiltarlity Community Council voting - The CLG said the Kiltarlity CC held a vote on the following

- 1. A. whether the Fanellan site is acceptable or 1b. who does not consider it acceptable? Not a single person out of 50 supported it.
- 2a. Whether the site at the substation (quarry) at low lying area was more acceptable? The result of this was not unanimous but.

SSEN T explained that detailed ground investigation (GI) works are initially being carried out on 1 site initially to verifying what geological maps inform. SSEN T informed the Group that feedback shows there is not a uniform community view on site selection and there is conflicting feedback. The CLG asked whether communities had been factored into site selection.

SSEN T responded that community consideration is certainly part of the site selection process, adding that considering feedback received to date and including the technical, environment and engineering factors at present, Fanellan still performs as the best site option based on our initial assessments and the GI works will help to further inform. If the GI inform us otherwise, then GI works will be required at different site locations to determine a better site. These GI investigations are ongoing; therefore, the final site selection is still to be concluded.

CLG said they do not feel this is proper consultation. SSEN T clarified that from considering feedback from the Stat Consultees and the public the quarry area is being investigated, various options at the quarry have been looked at, the option to extend the quarry, the split site which came out of the Kate Forbes meeting and the site west of Broallan. This information and outcomes will be detailed in SSEN T Site selection report once its concluded.

This will be completed around Sept/Oct and SSEN T. SSEN T stressed that they are fully aware of the impacts that these projects have on communities and are trying to mitigate impacts, by taking on board feedback SSEN T explained they will not always be able to respond favourably to feedback and will need to justify to communities why decisions are made with reasoning set out and stressed that they are keen to work with all stakeholders in the design development

ACTION SSEN T will explain what has been concluded, which site and why it is being taken forward and why others are less favourable.

SSEN T offered to present findings to Kiltarlity CC and were not taken up on this, adding that they can reflect on this.

SSEN T updated the CLG of vandalism carried out on plant used for the GI works at Fanellan, explaining that it is a CDM area, so it is in the interest of public safety for them not to access the investigation area. CLG said locals use the path up in the area and access should be maintained for those who wish to use it. SSEN T stressed it is in the interest of public safety.

### Beauly - Blackhillock - New Deer - Peterhead 400kV

Spittal– Loch <u>Buidhe</u> – Beauly 400kV

#### Progress Updates and Next Steps:

- Consultation Summary Report published July 23 for Spittal Beauly, with Beauly Peterhead to be published imminently. Consultation on Beauly – Peterhead closed on 30<sup>th</sup> June.
- Environmental, archaeological and engineering surveys and investigations are ongoing following analysis of feedback
- Drafting Reports on Consultation; capturing key themes of feedback and decisions made in light of this feedback. Anticipated publication in Autumn
- Reviewing rationalisation and undergrounding options and considering engagement methods regarding any adaptations to proposals, the Reports on Consultation and confirmation of routes
- · Identification of alignment options within proposed OHL routes to be presented in early 2024.







## Beauly- Denny 2nd Circuit Upgrade

#### Scope of Fasnakyle project

-Upgrade to the second circuit on the existing Beauly- Denny overhead line (OHL) from 275kV to 400kV. The Beauly-Denny OHL was constructed for 400kV operation on each of its two circuits but put into service with one operating at the lower voltage of 275kV. This means no alterations to the OHL are required to upgrade it to 400kV.

This upgrade also drives the requirement for a new, additional substation near Fasnakyle (south-west of Inverness) and also at Braco (north-east of Dunblane) to accommodate the 400kV equipment, including modifications to other substations along the route, including: Fort Augustus, Errochty, Kinardochy and Tummel.

#### **Project Update**

- New 400kV substation at Fasnakyle is currently based on an Air Insulated Switchgear (AIS) solution. A typical platform size for an AIS substation would be approximately 380 v 315m
- Site selection process ongoing (on next slide)

#### **Next Steps**

- Public Consultation Tues 5<sup>th</sup> Sept
- Virtual Consultation Thurs 7<sup>th</sup> Sept
- · Further engagement with stakeholders
- Confirmation of potential substation location
- Further surveys and investigations (e.g., GI, habitat, biodiversity etc.)





19.1

# **Beauly- Denny 2nd Circuit Upgrade**

#### Fasnakyle: Site Selection

Fourteen different options were identified over three different sets of site selection, all within a 2.5km search window either side of the Beauly-Denny overhead line and running north along the line to Corringony and south down to Dundreggan. This identification was performed using publicly available data and multi criteria analysis (MCA) to provide high level constraints information.

Of the fourteen options, Options 7, 8 and 13 were able to be discounted early in the process due to feasibility issues in terms of space constraints or environmental, reputational, or local stakeholder impact which quickly came to light when scrutinised. Early Red, Amber, Green (RAG) matrix scoring was undertaken for options 1 through 6, a second set of scoring for options 8 to 12 and a third for option 14. Three options were taken forward to Stage 2. These were options 4, 9 and 10, all within two kilometers of each other south and west of Tomich village.

Following further analysis of options 4, 9 and 10, the potential site option the project believe best balances the environmental and technical factors under consideration for the Fasnakyle area 400kV substation is Option 9. The key environmental, engineering and commercial reasons for this are set out below.

#### Environment

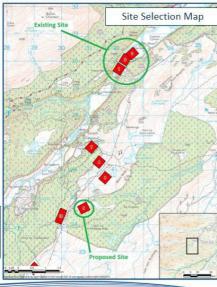
A comparison of all three options has identified Option 9 as the environmentally most preferred. Whilst all Options are in proximity to Ancient and Native Woodland, Option 9 is situated the furthest distance and is the only Option that does not require tree felling. It will have the least impact on the residential and conservation area of Tomich Village, situated the furthest away of each of the Options. It has a low potential for the presence of any unidentified archaeological or cultural heritage features and is situated the furthest from any watercourse, reducing the risk of pollution.

#### Engineering

Options 4, 9 and 10 presented the best compromise of accessible site locations and wider generation connectivity into the network. Of the three, Option 9 was the site best positioned to achieve this compromise.

#### Cost

Capital costs such as construction, diversions, felling, public road improvements, etc. and Operational costs including inspections and maintenance were compared for each of the options. For Options 4, 9 and 10 there was very little difference with each other in terms of costs.

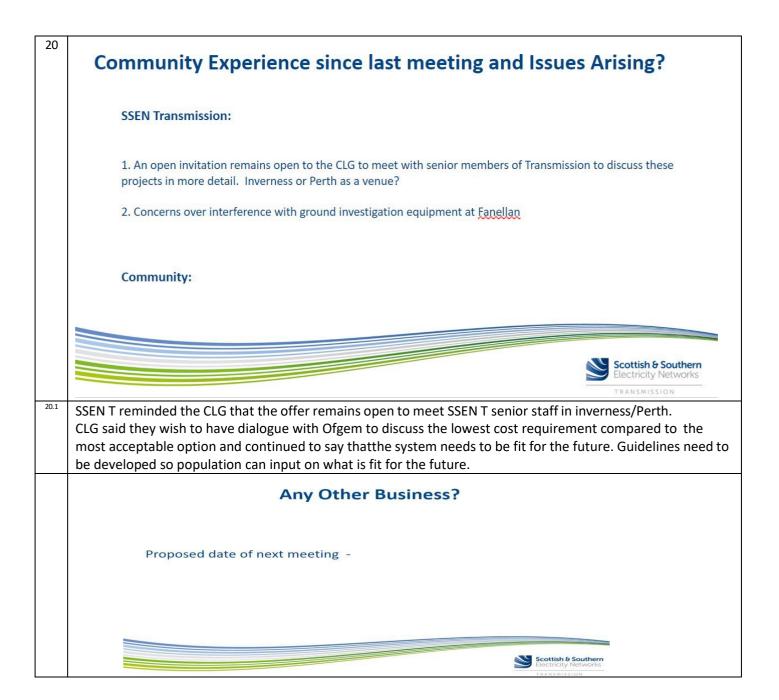




**Fasnakyle:** CLG provided feedback on visualisations and requested that they are taken from the site to the National Scenic area for all site locations to ensure continuity, which SSEN T agreed to and explained that 3DW will be at the consultation event to show images from different points, and at this early stage the substation can be shown at different levels in terms of landscaping it's too early in the process to show this in much detail in terms of screening etc as the environmental consultants have not developed the detail at this stage, this will be built in as the project design develops alongside feedback received. SSEN T will ask 3DW for a GIS model as well as AIS, also saying its policy not to use SF6 if it can be avoided.

The CLG requested that GIS infrastructure is strongly considered as their preferred option is to house the equipment indoors, particularly with site 9 being opposite Glen Affric NNR and adjacent to a main core path.

The Chair said the event hours should have run for a longer duration and SSEN T agreed that the next events will run until 8pm to allow those working time to attend.



#### **Outstanding Actions and Updates**

Number	Action/Update	Owner	Open/Closed
1.	Noise monitoring/graphs	RS	Open
2.	THC Working Group - Fire management	Cllr Fraser	Open
3.	Feedback on THC stance re removing PI trigger	Cllr Fraser	Open
4.	SSEN T to inform when requested maps will be available.	GC	Update provided. Maps to be available end of Oct
5.	How CLG envision the meetings to be more effective	CLG	Open
6.	How SSEN T envision more meaningful meetings for the CLG	SSEN T/SC	In process
7.	Request that THC Environmental Health team ensure Community involvement in the 2023 noise review.	Cllr Fraser	Open