The Scottish Parliament
Net Zero, Energy and Transport Committee
Scotland's electricity infrastructure: inhibitor or enabler of our energy ambitions?
Submission by David Garvie, 17 April 2023

1. The suitability of the different electricity technologies that the Scottish Government wants to play a role in future energy supply (onshore/offshore wind, marine, solar, hydro)

It seems to me that energy should be generated as close as possible to where it will be consumed, and that does not appear to be the case at the moment. There is strong evidence that moving energy long distances is inefficient, with significant losses in the transmission network. Moreover, why should people in one part of the country have to suffer from the industrialisation of their local countryside, simply to satisfy the demands of people elsewhere in the country?

SSEN's current proposal for their "Spittal – Loch Buidhe – Beauly 400kV Reinforcement" project and their related "Beauly – Blackhillock – New Deer – Peterhead 400kV" project will involve the construction of a new 400kV substation and HVDC converter station near Beauly. SSEN's preferred site for this is at Fanellan, adjacent to Ruttle Wood, near Beauly. The planned scale of construction at this site will be catastrophic for the local community and wildlife – the proposed size is over 60 acres (around 35 football pitches) and is in a greenfield area of farmland, adjacent to a historic woodland with local walks, an osprey nest, nesting birds of prey, etc. This will be the hub for 57m-high pylons stretching north to Caithness and east to Peterhead. The impact of this on the local environment cannot be underestimated, but we appear to be happy to sacrifice the local environment in order to transport energy elsewhere, without looking closely at alternative options. And the 'need' for this spaghetti junction infrastructure (as an SSEN employee described it) is not to provide electricity to the local community, but to transfer it several hundred miles further south, via pylons to Peterhead and then subsea cable to the South. Why should the local communities in the Highlands, an area renowned for its natural beauty, be sacrificed in order to export electricity inefficiently to elsewhere in the country?

I would suggest that if we could define a principle whereby energy is generated as close as possible to where it will be consumed, then this could be achieved by a mixture of suitable technologies, including offshore windfarms close to heavy areas of use, and small-scale nuclear plants. There will almost certainly be other technologies that could contribute to this principle. It is neither fair nor efficient to generate electricity in the Highlands in order to be transported large distances to elsewhere in the UK.

2. These technologies' compatibility with the current and planned electricity network

As I've described above, there is a question as to whether the expansion of onshore wind farms in the Scottish Highlands is compatible with the current and planned electricity network, given the long distances it needs to be transmitted. Experience from the Beauly – Denny overhead line suggests that moving electricity long distances is very inefficient and simply building more and bigger transmission networks seems the wrong way to solve the problem. The current (and planned)

electricity network will be more efficient if electricity is generated close to where it is consumed.

3. **Whether the current planning system is geared to support and enable development of the infrastructure we will need within the right timeframes to reach net zero**

The proposals that SSEN is currently progressing have been split into multiple small projects, even though they all depend on each other. Each individual project will go through the planning system separately. Consequently, it is very hard to get an overall picture of what the final result will look like – a small project on its own may look acceptable to planners who are not aware of the other related components, and it is only when all projects have been consented, and it's too late, that the overall destructive plan will become apparent. Surely national infrastructure projects such as this should be considered strategically, as a whole, and SSEN should not be allowed to break them down to small sub-projects in order to smooth their path through the planning system?

I am fully supportive of the need to move to Net Zero and I support the role of renewables as part of this drive. However, other countries seem to have been able to balance the requirement to introduce renewables and 'save the planet' without at the same time wrecking the landscape. For example, in Denmark lattice pylons are no longer accepted for any new power line construction and their aim (agreed by their parliament in 2008) is that all 400 kV-connections are established underground instead of overhead lines. Why can Scotland not follow the lead of Denmark? Unlike Denmark, Scotland doesn't appear to have any overall infrastructure policy and it appears to be left to SSEN to decide how to implement the Government's policy in the cheapest manner they can get away with. Denmark created a detailed infrastructure policy in 2009 – I would be delighted if your Committee could follow their lead and create a strategy that drives SSEN's projects, rather than letting SSEN get away with what they are able to.

I hope your Committee will find this comparison with a current 'live' project useful as you consider what electricity infrastructure will be needed to realise the ambitions set out in the Scottish Government's recently released Draft Energy Strategy and Just Transition Plan. I strongly believe that Scotland needs an overall energy infrastructure strategy which then informs the need and design for major infrastructure projects such as these. Unfortunately, in the absence of such a strategy, SSEN seem able to create these projects piecemeal and effectively smooth their path through the planning system. And as a result, we end up wrecking the local environment.

Best regards,
David