James Norman
Ofgem
South Colonnade
Canary Wharf
London

08 February 2019

Dear James

Orkney transmission project: Consultation on Final Needs Case and Delivery Model

Scottish Renewables is the voice of Scotland's renewable energy industry, working to grow the sector and sustain its position at the forefront of the global clean energy transition. We represent around 260 organisations across the full range of renewable energy technologies in Scotland and around the world, ranging from energy suppliers, operators and manufacturers to small developers, installers and community groups, as well as companies throughout the supply chain.

Fair and cost-reflective use of the electricity networks is fundamental to enabling our industry to deliver; to help meet both the UK and Scottish Government's objectives around clean growth and to meet our legally binding climate obligations.

Scottish Renewables supports the progression of a timely upgrade to the connection to Orkney to alleviate current and future constraints and allow more generators to connect to the network smoothly. We welcome Ofgem's minded to decision to approve the Final Needs Case for the Orkney transmission project. However, based on consultation with our membership, we have concerns with various elements of the conditionality criteria set out in Ofgem's consultation.

Our key concerns are outlined below, with further detail provided in the consultation questions. In our view

- Ofgem's **minimum generation threshold** does not fully consider the wider analysis of consumer benefits and costs provided by SSEN.
- The **misalignment of timelines** between Ofgem, SSEN and generators has not been addressed.
- The requirement for generators to demonstrate planning consent and finance (merchant or CfD) by December 2019 goes beyond what is required of mainland GB developers and will pose a significant risk to development.

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INVESTORS IN PEOPLE

- **Ofgem's proposed conditionality would inhibit the Orkney transmission project,** and with it, a wide range of benefits to GB and Orkney consumers.

We would be happy to discuss this response with you further if that is helpful.

Yours sincerely

Joe Mitchell
Policy Officer
Scottish Renewables

Question 1. Do you agree that the current network on Orkney needs reinforcing in order to connect additional generation?

We agree that the current network on Orkney needs reinforcing in order to connect additional generation.

Question 2. What are your views on the generation scenarios developed by SHE-T? we are particularly interested in views on the likelihood of wind generation progressing without subsidy support and the likelihood of tidal generation around Orkney developing to the levels predicted by SHE-T scenarios?

Tidal
SSEN has developed a range of generation scenarios, some of which assume a significant increase in the amount of tidal generation coming forward by 2032. Based on consultation with our membership and recent advances within the industry, we would consider these assumptions to be plausible.

Devices such as the Meygen 1A (1.5MW) and Orbital SR2000 (2MW) are already in the water and producing low carbon electricity. In its first year of testing at the European Marine Energy Centre (EMEC), the SR2000 turbine generated over 3GWh. In the same year, MeyGen's four turbines deployed in the Pentland Firth generated over 8GWh. These projects demonstrate tidal power's readiness to make a real contribution to the UKs renewable energy and climate change targets.

Advances made through the deployment of these devices are also driving significant cost reduction. Recent analysis by the Offshore Renewable Energy Catapult has estimated that the levelized cost of energy (LCOE) for tidal to reduce from £300 per MWh to £90 per MWh by 1GW of deployment[1].

[1] OREC cost reduction report

Recent developments:

- Orbital Marine, has recently secured funding for construction of their O2 2MW turbine to go into commercial production[2].
- EMEC will act as the pilot centre in a recently announced €12.8M European project to demonstrate scaling up marine devices from single to multi-device farms[3].

Wind

We believe that it may be possible for some specific projects under the right circumstances to come forward without subsidy in the UK, as demonstrated by Energiekontors onshore wind project commissioned last year which is funded solely through the projected revenues from a power Purchase Agreement[4].

Orkney has excellent wind resource which we would expect to contribute to the likelihood of subsidy free development taking place on the island. However, this will be highly dependent on-site specific characteristics and available finance terms. Ongoing network charging reform[5,6] adds further uncertainty to the business case for subsidy free projects, with costs for distribution connected generation assets likely to increase[7].

Question 3. What are your views on the technical design and costs of the proposed Orkney link?

No answer

Question 4. Do you agree with our concerns that a constraints-based CBA may not robustly demonstrate the true consumer cost/benefit of a radial extension to the transmission network?

Constraints avoided is an important consideration in the cost benefit analysis process. However, we understand the limitations of this methodology for a radial extension to the transmission network. SSEN has provided additional analysis which further supports the case for network reinforcement (see question 5).

Question 5. What are your views on the "additional CBA", outlined in this chapter, which has been used to sense check the results of the original constraints-based CBA?

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[2] Orbital Marine press release

[3] EMEC press release

[4] Energiekontor press release

[5] Ofgem: Targeted Charging Review - Minded to decision and draft impact assessment

[6] Ofgem: Electricity Network Access and Forward-Looking Charging Review - Significant Code Review launch and wider decision

[7] SR consultation response: Targeted charging review: minded to decision and draft impact assessment

In addition to their research on constraints-based CBA, Ofgem requested further information on potential benefits and costs to GB energy consumers. SSEN's consultant, GHD, provided supporting evidence which we do not believe has been fully considered by Ofgem.

- CO_2 reduction arising from fossil fuel generation displaced
- TNUoS charges paid by generators on Orkney[8]
- Avoided network development costs
- Local socio-economic benefits to Orkney (£46M - £417M)

This analysis supports the constraints-based approach to build a robust CBA which demonstrates a net benefit to GB consumers at a minimum generation threshold of 70MW.

Question 6

i) What are your views on our proposed conditions of approval? Do you agree with our view that the information available does not demonstrate that building a 220MW connection to Orkney would be beneficial for GB consumers if only 70MW of generation came forward to use the link? Do you agree with our proposal to set a minimum-generation threshold of 135MW?

We would support a lower minimum generation threshold. As discussed in question 5, we consider the 135MW minimum generation threshold proposed has not fully considered supplementary analysis provided by SSEN.

ii) Do you agree that the fact of a generator signing up to SHE-T's 'Alternative Approach' does not provide an adequate level of certainty that the generator will progress to full commissioning?

The 'ready to connect' element of SSENs alternative approach was developed in consultation with developers on Orkney to address the uncertainty of generators progressing to full commissioning. We believe the alternative approach provides certainty over and above the industry standard of connection agreements. We consider SSEN's alternative approach as a comprehensive way to mitigate the risk of incurring inefficient expenditure.

iii) Do you agree that the award of a CfD to a generator would provide an adequate level of certainty that the generator will progress to full commissioning?

We agree that the award of a CfD to a generator would provide an adequate level of certainty that the generator will progress to full commissioning. However, we disagree that this should be used as a condition to progress the project. The energy market is changing rapidly and as discussed above, there are various methods by which generators could agree purchase agreements for power produced and commit to full commissioning. Furthermore, the misalignment of regulator and developer timelines mean it would not be possible for developers to get CfDs or reach financial close before Ofgem makes its final decision.

[8] Ofgem: Open letter about ongoing reviews of charging arrangements

iv) Do you agree that, in the absence of a CfD, a generator securing planning consent and finance to construct a project is a good indicator of a project's likelihood of progressing to commissioning?

While securing planning consent and project finance are fundamental aspects of project development, Scottish Renewables disagrees with this proposed additional conditionality. Combined with a backstop date of 2019, these conditions could prove unachievable for developers, risking the project and the significant benefits that the transmission project would bring.

We have significant concerns that this condition would place an additional burden on remote island renewable energy projects. Mainland GB connections only require a signed connection offer and payment of securities and liabilities. Under the proposed conditionality, developers on Orkney would be expected to secure planning and financial close without visibility of a grid connection. Furthermore, these are to be achieved ahead of a proposed backstop date of December 2019, which we do not believe is feasible.

The alternative connection process was developed to overcome the misalignment of regulator and developer timelines. The requirement to demonstrate secured finance and planning permission this early in the development process would be a significant barrier, likely delaying or preventing project development.

v) If you answered no to questions (iii) and (iv) above, can you propose any alternative ways to assess, to an adequate level of certainty, whether a generation project will progress to commissioning?

Ofgem is minded to reject part two of SSENs alternative approach, which would involve adjusting securities for one year to align with the level of securities experienced by projects on GB mainland.

Under the standard industry approach to securities and liabilities, developers on Orkney will be paying 4.5 times more than customers in the North of Scotland. However, if Orkney developers are able and willing to progress under these conditions, this should be considered a strong signal that they can progress their projects to commissioning.

SSEN has consulted with developers on Orkney to develop an alternative conditionality to the Needs Case response. We support this proposal which includes:

- A circa 70MW minimum generation threshold, based on SSENs analysis of consumer welfare, CO_2 mitigation and TNUoS charges payed by generators
- Conditionality that requires generators to be signed up to the "Ready to Connect" process under the AA only
- Business as usual securities and liabilities arrangements, if Ofgem in their final decision reject the AA to securities and liabilities.

- We would support additional discussion between Ofgem, SSEN and stakeholders regarding an appropriate backstop date. For a backstop to be effective, a date needs to be in place which considers both the time required for projects to progress through the consenting process and the significant planning and securities expenditure of developers on Orkney.