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25 August 2021

Dear Patrick,

**SSEN Transmission response to Access and Forward-looking Charges Significant Code Review Consultation on Minded to Positions**

This response is prepared on behalf of Scottish Hydro Electric Transmission Plc (SSEN Transmission), part of the SSE Group, responsible for the electricity transmission network in the north of Scotland.

We welcome the opportunity to provide our view on the minded-to positions on the Access and Forward-Looking Charges Significant Code Review (SCR). We would caution however that there is still a great deal of uncertainty as to the full impact of the complete package of reforms under consideration in this SCR. Ambiguity over future network charging arrangements will create a challenging environment for all – demand, generation and network owners and operators – delaying our transition to a flexible energy system and ultimately putting net zero targets at risk. Stakeholder engagement tells us that our customers need cost certainty and clear, forecastable network charges to plan and deliver vital renewable electricity projects. Distributed Generation (DG) plays an important role within our network area, currently representing around 40% of connected generation, and therefore any barriers to deployment could have a knock-on impact on our own operations. As a Transmission Owner (TO) we need a level of certainty as to when and how generation will connect in order to play our critical role in delivering the infrastructure that will underpin GB's decarbonisation efforts.

Ofgem's recognition within the consultation of the need to undertake a wider review of TNUoS is welcome but given the history of how long Significant Code Reviews can take, action is needed now to ensure the charging regime does not continue to act as a barrier to renewable generation. Alongside this, we would urge Ofgem to ensure these proposals are reassessed alongside any future DUoS reforms which are still under consideration before a final decision is made.

We welcome further engagement in this area, and should you wish to discuss any aspect of this response please do not hesitate to get in touch.

Yours sincerely,

Cara Dalziel  
Senior Regulation Analyst

## Annex 1

### TNUoS charging for Small Distributed Generation (SDG)

#### TNUoS issues being emulated by SDG

As a facilitator in the connection of renewable energy we have consistently heard strong calls from our generation customers of the critical importance to create a level cost playing field for Scottish projects. These calls consist of particular concerns of **wider TNUoS charging adversely affecting the investment case of new and existing projects due to high, volatile and unpredictable costs**. Although we agree that all users of the transmission network should contribute to the costs through TNUoS, if the minded-to decision that DG >1MW will pay wider (locational) TNUoS is progressed, we foresee these concerns being emulated by DG for these reasons:

- The current wider TNUoS methodology **results in more expensive charges** for renewable, intermittent generation in the north of Scotland where natural renewable resources are abundant, resulting in a barrier for development. For example, an onshore wind farm in the north of Scotland currently pays £5.54/MWh as part of the locational TNUoS charges compared to a similar site in Wales that will be paid £2.81/MWh.<sup>1</sup> Exposing DG to wider TNUoS will further increase this divide with renewable generation in the north of Scotland facing the worst of the impacts, as recognised within the consultation's impact assessment. This will have serious implications on the viability of small renewable generation projects that will play an essential role in meeting net zero targets.
- **Forecasting wider TNUoS is extremely unpredictable and volatile**. For example, the final tariffs for 2021/22 charges and the forecast that was published by the ESO show material differences each year and in the most extreme case was as much as a 305% difference. Generators also see swings in their TNUoS charges typically over 50% up or down each year and in some instance's year-on-year changes have been between up 774% and down 2090%.<sup>1</sup> Investors need cost certainty and clear, forecastable TNUoS when planning and delivering long-term investments at lowest cost of the UK consumer. This unpredictability results in project finances being inflated to cover risk margins and future variability. Analysis from NERA Economics estimated that the cost of that risk by 2030 could be between £122 to £391 million per year.<sup>2</sup> These increased margins will be passed through to either energy market prices or into support mechanisms such as the Contracts for Difference (CfD). Ultimately these costs are then borne by consumers.

Over 80% of our engaged stakeholders told us that TNUoS acts as a barrier to the delivery of their renewable projects in Scotland. Our North of Scotland Future Energy Scenarios<sup>3</sup> tell us that we need 20-23GW by 2030 and 33-37GW by 2050 of renewable electricity from the north of Scotland alone to put us on the correct pathway to net zero. We currently have just over 6GW connected in our network area and there is a clear need to have regulatory policy in place that enables the required development. The current TNUoS charging regime already does not send the appropriate signal to enable the capacity required, in fact it does the contrary. We expect that by 2050 around 25% of connected capacity within our network area will come from DG. Exposing these generators to the current TNUoS charging regime will simply act as another blocker to the timely development of new and repowered renewable generation required to deliver net zero

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<sup>1</sup> [Transmission Charges: An overview of charges for use of the GB transmission system, SSEN Transmission, February 2021](#)

<sup>2</sup> Quantifying the Risk of TNUoS Charge Volatility for Wind Developers, NERA Economic Consulting, March 2021

<sup>3</sup> [North of Scotland Future Energy Scenarios, SSEN Transmission, February 2021](#)

### Recommendation: transitional arrangements

Given these impacts, we strongly believe that transitional arrangements should be considered and we are supportive that implementation is delayed until a wider review of TNUoS is complete. Given that Ofgem has recognised the need to consider the longer-term role of transmission charging, introducing a charge to DG that would likely change again following a wider review would create additional volatility and uncertainty for generators. Grandfathering for existing sites could also be considered given that TNUoS is intended to act as a forward-looking signal and existing sites which have been built and financed at a specific point in time based on the best view of network charges will be unable to respond. However, we would note the practicalities of having different tariff arrangements for new and existing sites could be difficult to manage.

### Impact assessment review

We would also take this opportunity to highlight issues we have identified with the accompanying impact assessment. Both generation and demand TNUoS will ultimately be passed through to end consumers and therefore any analysis from Ofgem must follow that cost through to the end point to provide an accurate view of any consumer benefits. While we welcome reform that will result in a benefit to consumers, we do have serious concerns over whether the stated benefit of £544m can realistically be delivered:

- The modelling has assumed that generation will choose where to locate based on revenues, leading to greater volumes of generation choosing to locate in southern zones. This is not consistent with how siting decisions for renewables projects are made, where the location of the best renewable resources, availability of land and planning regimes are some of the main considerations. For example, it is not possible for onshore wind projects to gain planning consent in England and therefore a locational signal alone is not going to see these projects locate further south. Given that the impact assessment has identified losses of up to £369/kW for onshore wind producers in Scotland where most sites will be based given the more favourable planning environment, there will be a significant risk to connecting the renewable generation needed to meet net zero if this proposal is introduced without any changes to the current charging regime.
- The biggest revenue losses identified in the impact assessment relate to renewable generation in the north, while conventional carbon generation will be incentivised to connect in the south. This goes against government policy objectives and again will act as a blocker to decarbonisation efforts.
- The impact assessment states that transmission connected generation in Scotland is expected to see a slight increase in revenues, however we have concerns that this will not be the case. The high costs in the north of Scotland are exacerbated by the Year Round Not Shared tariff within the current wider TNUoS methodology. This considers the diversity of the generation technologies connected within each generation zone. It also considers the generators ability to share capacity of the network. This results in the more renewable, intermittent generation capacity that is connected within an area, the more expensive this tariff of wider TNUoS becomes for all generators connected within the vicinity. Given that the majority of SDG is renewable intermittent generation, this will in turn, not only increase the cost of TNUoS for SDG but also for transmission connected generation. This is sending a price signal that current transmission connected generators cannot respond to and is contrary to achieving the policy objectives of increasing the renewable generation required to reach net zero.
- While the consultation recognises that there is a risk of stranded network assets if existing sites choose not to repower, the impact assessment does not fully consider the wider impact of repowering decisions not

proceeding. Anecdotally our stakeholders have told us that DG exposure to wider TNUoS will make repowering sites that are reaching the end of their operational life unviable. This raises serious concerns given that repowering opportunities will steadily increase over the coming decade and will play an important role in maintaining the required levels of renewable capacity to meet net zero.

- The impact assessment also recognises that CfD payments will likely increase to reflect the higher costs faced by renewable SDG being exposed to TNUoS costs. It is important to note that this will only apply to new renewable generation, as existing sites will not be able to recover costs from the CfD in this way. We have concerns that this minded-to position is simply pushing costs to other parts of the system that will still ultimately be paid for by consumers. Considering the NERA Economics analysis referenced above, the current regime will also result in additional CfD costs being passed onto consumers through higher risk margins caused by unpredictable and volatile charges. This additional cost has not been considered within the consultation's impact assessment.

We would also welcome further clarity on the final administrative arrangements for charging DG TNUoS. In any case, whoever ultimately takes on the administrative duties must have appropriate data sharing practices in place to ensure TOs have visibility of DG on the network.

#### [Next steps for a wider review of TNUoS](#)

We strongly welcome the recognition from Ofgem that a wider review of TNUoS charges is needed. This mirrors the calls SSEN Transmission has been making on behalf of our customers. Our stakeholder engagement has shown that 93% of our stakeholders believe that TNUoS reform is required and 84% have told us that TNUoS currently presents a barrier to the delivery of future projects.<sup>4</sup>

Given the urgent need for reform and the length of time such a review could take (e.g. the current SCR has been ongoing for nearly 3 years and is still incomplete), action is needed now to ensure that 2030 targets and beyond can be met. We would strongly advocate that any reform must consider where the availability of the best renewable resources are located in order to enable the net zero world we are moving towards, as well as taking into account the concerns from SSEN Transmission and our stakeholders that we have highlighted earlier in our response and throughout our own published research. Following this consultation we would urge Ofgem to come forward with a clear plan for a wider review of TNUoS, particularly to provide clarity on a timeline, what will be included in the scope of the review, and which parties will be involved. We would very much welcome further engagement with Ofgem on this topic.

#### [Connection boundary and access rights](#)

We are supportive of the proposals for both the distribution connection boundary and access rights.

In terms of proceeding with time-profiled and non-firm access rights, we believe that these will give more choice to customers and could be an effective way for a generator to align their costs with efficient use of the network.

We would note that the move to a shallower boundary, rather than adopting a similar connection boundary to transmission, will not fully address the distortion between distribution and transmission. However, from our own experience we are aware our stakeholders have faced barriers relating to securities and liabilities and therefore believe

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<sup>4</sup> [Transmission Charging: Stakeholder Feedback Report, SSEN Transmission, May 2021](#)

this is a suitable approach on balance. Requiring security provisions from connected parties would likely make it more difficult for smaller generators to connect and ultimately act as a blocker to renewable generation.

While we do consider these reforms to be positive, it is difficult to fully assess the impact of such changes without further details on the options for DUoS reform. We would urge that any final decision on the proposals within this consultation must be considered alongside any changes to DUoS. We hear consistently from customers that uncertainty over future network charges acts as a barrier and can delay vital renewable generation projects from connecting until the regulatory landscape is clearer. We would welcome further clarity on the arrangements so that industry can fully understand the impacts and so that we can better understand how our own operations under our RIIO-T2 Business Plan may be impacted by changes in generator behaviour. Examples of the impacts we foresee on SSEN Transmission due to this increasing uncertainty include:

- Generators may choose not to proceed or move connection dates until charging arrangements are more certain. This could have a knock-on impact in the certainty we need to build investment cases and ultimately slow progress towards net zero.
- Increased complexity when outage planning for distribution could have a knock-on impact at transmission.
- Potential to create a resource constraint due to increasing complexity and flux in customer offers. For example, more probabilistic assessments could be required, some customers may try to connect quickly in advance of any 'grandfathering' arrangements being introduced, while others may delay until there is more certainty.
- There is the potential for duplicate offers for transmission and distribution if customers request parallel options via NGENSO and DNOs. This not only adds an administrative burden and seems counterintuitive to whole system thinking but will also see customers pay twice.
- New tools may be required to help customers understand both transmission and distribution options prior to making an application.
- Potential to significantly impact GSP transformer replacements we have planned throughout RIIO-T2 and T3.