

Sai Wing Lo  
Office of Gas and Electricity Markets  
10 South Colonnade  
Canary Wharf  
London, E14 4PU  
[reopenerconsultations@ofgem.gov.uk](mailto:reopenerconsultations@ofgem.gov.uk)

SSEN Distribution  
Inveralmond House  
200 Dunkeld House  
Perth  
PH1 3AQ  
[landel.c.johnston@sse.com](mailto:landel.c.johnston@sse.com)

13<sup>th</sup> February 2025

Dear Sai Wing,

**Scottish Hydro Electric Power Distribution plc response to the statutory consultation on Ofgem's Draft Determinations on SHEPD's Skye - South Uist project (Hebrides and Orkney Whole System Re-Opener)<sup>1</sup>**

This response is made on behalf of Scottish Hydro Electric Power Distribution plc ('SHEPD', referred to in our licence as 'SSEH'<sup>2</sup>) to address Ofgem's draft determinations on our Skye – South Uist project, submitted under the Hebrides and Orkney Whole System Re-opener in January and July 2024<sup>3</sup>. **This response is confidential.**

In our July 2024 application we asked for £68.4m (2020/21 prices) to develop a replacement solution for the existing Ardmore (Skye) – Loch Carnan (South Uist) submarine cable. Our recommended option is the implementation of an overhead line (OHL) section from Dunvegan (Skye) to Loch Pooltiel (Skye), a submarine cable from Loch Pooltiel (Skye) to Loch Carnan, and an additional submarine cable "optimisation loop" from Ardmore to Loch Pooltiel. The optimisation loop would mitigate potential delays on any overland section, in addition to providing other projected longer term operational and resilience benefits.

We welcome Ofgem's confirmation that there is a need for a replacement solution, that it is satisfied we have considered all viable options, and that the construction of a new submarine cable from Loch Pooltiel to Loch Carnan is the correct solution. We are pleased with Ofgem's assessment that the costs we have submitted for assessed options are efficient and the project risks are appropriate.

However, we do not agree with Ofgem's conclusion that our recommended Ardmore – Loch Pooltiel optimisation loop component is not the most optimal option, which has driven Ofgem's draft decision to reduce funding to £53.81m. The existing Skye – South Uist cable is life-expired, and our recommended option offers the fastest solution to resolve the risk of failure. If Ofgem maintains its view that the alternative Option 19 is the most efficient solution, the funding provided must reflect the higher risk associated with undergrounding a key section of the route.

In addition, we do not agree with Ofgem's position that excessive cost risk [REDACTED], should be managed through the [REDACTED]

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<sup>1</sup> [RIIO-2 Re-opener: Scottish and Southern Electricity Network's 2024 Skye-Uist Project | Ofgem](#)

<sup>2</sup> Ofgem refers to SHEPD and SSEH in its response as SSEN, which is the joint trading name of SHEPD and Southern Electric Power Distribution plc (SSES).

<sup>3</sup> [Whole system energy solutions for the Scottish Islands - SSEN](#)

Totex Incentive Mechanism. In response to Ofgem's draft position to not introduce a cost adjustment mechanism within RIIO-ED2, we seek additional risk funding. Our response focuses on these key aspects in the following section.

In summary we request that Ofgem:

- Reconsiders its draft determination to approve Option 30 in the context of the evidence in our HOWSUM applications, subsequent SQ responses, and this response, which is our preferred outcome, or
- Provides additional risk allowance to adequately fund SHEPD to deliver Option 19, which is Ofgem's preferred solution, taking account of both delivery and security of supply risks; and
- Approves the provision of an additional extraordinary risk allowance, [REDACTED].

Based on the urgent requirement to replace the existing Skye – South Uist submarine cable and our procurement process being underway, we would welcome early confirmation of Ofgem's Final Determinations for the project.

We would be happy to discuss any of the points we have raised in our response.

Yours sincerely,



**Landel Johnston**

Head of Special Projects, Regulation – SSEN Distribution

## Ofgem consultation questions

### ED.Q1. Do you agree with our assessment of the needs case for the Skye-Uist project under Hebrides and Orkney Re-opener submission?

Yes.

### ED.Q2. Do you agree with our assessment of the optimal solution for the Skye-Uist project under the Hebrides and Orkney Re-opener submission?

We do not agree with Ofgem's assessment - please see section 'Determining the optimal solution' below.

### ED.Q3. Do you agree with our assessment of the efficient option to mitigate consenting risk related to the onshore section of the proposed project?

We do not agree with Ofgem's assessment. Please see sections 'Determining the optimal solution' and 'Potential for earlier mitigation of consenting risk' below.

### ED.Q4. Do you agree with our assessment of the efficient costs of the Skye-Uist project under the Hebrides and Orkney Re-opener submission?

We are comfortable with Ofgem's assessment of option costs as efficient, but we do not agree that Ofgem's assessment of the risk allowance comprehensively funds the risk of its preferred option – please see sections 'Standard risk allowance' and 'Diesel generation risk' below.

### ED.Q5. Do you agree with our proposal to not introduce an additional mechanism to adjust allowances to cover costs under the Payment Adjustment Mechanism?

We do not agree with this proposal, but if Ofgem does not change its position we must have alternative provision for risk – please see section 'Extraordinary risk allowance' below.

## Detail of response

### Determining the optimal solution

1. Ofgem notes in its view that in the absence of any consenting risk, Option 18 is the optimal solution. Ofgem also agrees that the consenting process for the OHL section requires additional mitigation or an alternative approach to the onshore section.
2. In assessing the benefits of the optimisation loop, which is represented in our application as Option 30 (Option 18 plus the optimisation loop), Ofgem sets out that it has not seen adequate evidence that the optimisation loop is a cost-effective solution to mitigate these risks. In its view, this is because the benefits are short lived; the results of the CBA are uncertain and only marginally indicate that the proposed option delivers the highest net benefits; and the additional cost of the optimisation loop is expensive when compared to the original cost of the preferred Option 18, and the substantially lower extra cost of the alternative mitigating options.
3. Ofgem has concluded that Option 19 (Option 18, but installing an underground cable instead of an OHL for the Dunvegan – Loch Pooltiel onshore section) is the efficient solution to replace the existing Skye to South Uist submarine cable, as it delivers the same benefits and consenting risk mitigation but at much lower cost than the other viable options.
4. We do not agree with Ofgem's conclusions on the optimum solution. The latest CBA analysis we shared with Ofgem demonstrated that Option 30 has the best NPV of shortlisted options which sought to mitigate delivery risk, when taking account of the benefits of using the optimisation loop instead of diesel generation in the event of potential outages on the transmission system. In addition to these benefits quantified in that specific CBA we believe there are a number of other material factors that need to be taken into account.

**i. Undergrounding a 33kV cable across Skye will be problematic to deliver.**

This is for several reasons:

- Significant proportions of the route will be through hard rock such as granite, requiring specialist techniques which is likely to add additional time and cost to deliver.
- The proposed route follows a minor access road, [REDACTED] while the project is delivered.
- Whilst undergrounding cable may reduce consenting risk, it will not eliminate this risk. SHEPD has held community events focusing on this project, most recently in Glendale and Dunvegan on Skye in November 2024. The suggestion of undergrounding the cable as an alternative to the overhead line proposal has received a mixed response. Members of the “club property”, [REDACTED] have raised objections to the undergrounding option, albeit ownership remains difficult to confirm through ongoing legal investigations and assessments. Much of the existing roadway for the proposed route is narrow. [REDACTED] where ground conditions or other factors force us onto the surrounding land, navigating verge ownership will quickly translate into similar consenting requirements to an overhead line.

This highlights that consenting an underground cable is not a significantly easier or less complex challenge. [REDACTED]

[REDACTED] The optimisation loop is the only recommended solution which is expected to mitigate a delay on replacement of the existing life-expired Skye – South Uist submarine cable. We therefore request that Ofgem reviews and amends its draft position to include costs for the optimisation loop.

**ii. The impact of failure of the existing Skye - South Uist cable ahead of replacement is significant for communities on the Uists.**

While we have quantified the impact of failure to a certain extent within our CBA, the CBA exercise does not fully reflect the risks imposed on these communities in not implementing Option 30. Our Islands Resilience Policy will greatly help these communities in the longer term, and initiatives such as the optimisation loop will help manage supply risk in the near term. Delivery of the Ardmere – Loch Pooltiel optimisation loop and Loch Pooltiel – Loch Carnan submarine cable by the expected date of 2026/27 would remove the security of supply risk for the Uists associated with the existing Skye – South Uist cable. The expected delivery date of Option 19 is 2027/28 at the earliest, if everything goes as planned with no consenting or construction delays. [REDACTED]. The information shared at point i. gives a sense of the uncertainties associated with undergrounding the cable.

As discussed with Ofgem during the Supplemental Query process, we have spent more time assessing and quantifying specific procurement and delivery plans and risks for Option 18 / 30, our recommended option for Skye – South Uist, than lower ranked options. However, if Ofgem has determined to fund us for Option 19, the funding must match the specific risk profile of that project. We discuss this further below.

We maintain the position, expressed in our January 2025 HOWSUM core narrative document, that we will consider the Ardmere – Loch Pooltiel optimisation loop as a core part of our long-term plan for the networks on Skye and the Outer Hebrides. We expect to confirm further benefits of the loop which reinforce its current position as the optimum solution.

### Standard risk allowance

5. We note Ofgem has reduced the proposed amount of standard risk allowance proportionate to its overall reduction of funding for the project. While we disagree with Ofgem's draft position to fund Option 19, should Ofgem maintain this position then the standard risk allowance requires to be revisited with a more specific assessment.
6. The original risk ask relates to the delivery of a submarine and OHL solution, but now needs to consider the different risks associated with undergrounding the cable. There are specific additional risks such as additional road reinstatement / re-surfacing, ground conditions, peat management and presence of rock. Specifically in relation to road reinstatement, the existing B884 is in a fragile state with multiple locations showing significant wear. The edge of the road surface is crumbling in a number of locations and there are various significantly sized potholes. This is further supported by local resident concern over the road condition, raised at stakeholder meetings in November 2024. [REDACTED]  
[REDACTED].
7. [REDACTED] Furthermore, due to the single-track nature of the road, it is highly likely that we will require significant traffic management and to undertake significant amounts of nightshift working to reduce closure impacts, which could also result in increased costs.
8. A detailed risk analysis was not submitted at an earlier stage for Option 19 as this was not our recommended option. We require a suitable risk allowance to protect and support us in managing this risk associated with the delivery of Option 19. Based on analysis to date we have currently estimated an additional maximum risk cost of [REDACTED] (2020/21 price base) relating to underground cable installation could be realised.

### Diesel generation risk

9. Ofgem sets out its view that "Although we recognise there is potential delay of the OHL section due to the consenting process, we consider that SSEN should assume most of the responsibility for any extra cost for managing the risk." However, as currently written, Ofgem's draft determination would mean that SHEPD carries all the risk should the existing cable fail in service prior to the land cable works being completed, with the associated supply shortfall likely to be met by running island diesel stations. This is not an acceptable position. We have set out that delivery of Option 30 is estimated for 2026/27, and for Option 19 is estimated as 2027/28 in the best case. If Ofgem maintains its position to not fund the optimisation loop, which would limit this exposure, we ask that Ofgem provides an appropriate additional element of funding to cover this risk. We estimated that the costs of running Loch Carnan Power Station for an additional 12-month period would be in the region of [REDACTED] as detailed in Appendix 3B – Outer Hebrides 2050 Whole System Proposals (Skye - Uist - Harris) CBA provided as part of our July 2024 submission and subsequent SQ responses.

### Extraordinary risk allowance

10. Our preference for the management of specific highly uncertain costs [REDACTED] remains a cost adjustment mechanism, which would allow us to submit costs after they are incurred, as we believe this represents a more fair and efficient way for these risks to be carried by SHEPD and customers. Ofgem has recently approved this mechanism for the same types of costs for other licensees.<sup>4</sup>

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<sup>4</sup> [Yorkshire GREEN - Project Assessment Decision | Ofgem](#), [Eastern Green Link 1 Project Assessment | Ofgem](#), [Eastern Green Link 2 \(EGL2\) project assessment decision | Ofgem](#)

11. We note Ofgem's view that "the circumstances of EGL2 or other transmission projects are not comparable to the Skye – Uist project due to the difference in project cost and [REDACTED] exposure [REDACTED]". This is not a fair or logical justification for rejecting the mechanism. SHEPD's project costs and [REDACTED] exposure are relative to its own activities and size, and the principles of the [REDACTED] cost risks are the same for these [REDACTED].
- Ofgem's approval of cost adjustment mechanisms for [REDACTED] EGL1, EGL2 and Yorkshire GREEN confirms Ofgem accepts these risks and their impact on associated costs and agrees that project funding should be adjusted accordingly. Our own cost risk [REDACTED] is material in proportion to our overall project estimate and should be treated the same as these comparable projects for other licensees. We request that Ofgem reconsiders its position on the introduction of a cost adjustment mechanism to manage this risk.
12. In the absence of a cost adjustment mechanism, we seek additional funding [REDACTED], in line with the principle set out in our January 2025 HOWSUM application. [REDACTED]
- [REDACTED]
- However, in light of Ofgem rejecting the cost adjustment mechanism, we must have an alternative arrangement to ensure SHEPD is not exposed to these [REDACTED] costs. For Option 19 this would be approximately [REDACTED], and for our preferred Option 30 this would be approximately [REDACTED].

#### Potential for earlier mitigation of consenting risk

13. Ofgem sets out that SHEPD should assume most of the responsibility for any extra cost for managing the risk associated with the consenting process, saying that we could have better mitigated the potential for delay if we had taken effective action earlier.
14. We have conducted development activities for this project in the same way we would for any other project. We initially assessed landowners across the proposed routes using the Registers of Scotland, highlighting parties with whom we required to engage. Further detailed feasibility assessment, which has progressed at the appropriate later stage of project development, has brought more information to light on details of potentially complex and unusual ownership arrangements. We consider it unreasonable to suggest there is more that SHEPD could have done to mitigate the potential delays. To have done so would have required investigation, commencement of process and investment disproportionate to the stage of the project and would not have resulted in mitigation of delays for the route. We have shared a number SQ responses to Ofgem on these aspects.
15. Land ownership arrangements are so complex in this context [REDACTED]. It appears increasingly likely that any route through this section of Skye is at high risk of consenting delay [REDACTED].
16. Most recently we have asked our legal consultants to confirm [REDACTED].
17. [REDACTED]
- [REDACTED] There is difficulty in corroborating this due to the lack of available maps of the Townships, several of which appear to have been lost over time. Both we and

local stakeholders are engaging with the Registers of Scotland and other sources in attempts to secure maps – to date these efforts are ongoing.

18. Earlier confirmation of this complexity would likely have resulted in the identification of our recommended solution including the optimisation route, which removes the overland delivery from Dunvegan to Loch Pooltiel from the critical path of solution delivery, but still requires the ongoing consenting process and associated delivery timeframe.

### Option sizing

19. Ofgem notes that for whole system solutions for the longer-term beyond RII0-ED2, options with larger submarine cables or higher voltage solutions should be evaluated. Our proposals for the Outer Hebrides in July 2024 included a larger 132kV option which was not recommended by the CBA. Reflecting on Ofgem's feedback, our January 2025 HOWSUM application includes a wider range of larger options, and we look forward to discussing these in more detail with Ofgem over the coming months.
20. We highlight that the physical size / cross section of a given cable is not the prime consideration in our optioneering – rather, we focus on specifying a minimum rating to meet the design requirements of the project. The physical cable size which can deliver this capacity may vary depending on manufacturer. The manufacturer may propose a cable of any cross section which meets this requirement and our cable specification documentation. We ensure that the minimum specified capacity meets all network loading requirements based upon detailed system analysis. This includes assessment of needs through to 2050, in line with our strategic development process.
21. We also note that capacity is not the only consideration in our approach to network sizing to Scottish islands. We also need to consider the appropriate level of resilience to island groups and note that this frequently means that a greater number of smaller sized cables is a more efficient solution to meet the needs of island communities.

### Timing of Final Determinations

22. We shared with Ofgem the need to confirm our commitment to the market [REDACTED] in order to meet planned delivery in 2026/27. Delays to the regulatory funding decision impacts our confidence in recovering our costs efficiently, our ability to place contracts, and jeopardises our ability to deliver a working solution within this period. [REDACTED]

It is on this basis that the delivery of the optimisation loop provides certainty to our timescales, mitigates the risk of any extended period to run our island diesel power stations in the event of cable failure, and helps to ensure the resilience of supply to the Uists and associated archipelago of islands.

23. We therefore invite a decision from Ofgem at the earliest opportunity, taking account of the additional time, cost, and security of supply risks, we have highlighted in our response, to support the progression of the Skye – South Uist replacement.