

Decision

Isle of Skye - Final Needs Case decision

Publication date: 04 August 2023

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Following our 12 May 2023 Final Needs Case consultation, this document confirms our decision to approve the Final Needs Case for the Isle of Skye 132kV Reinforcement project under the Large Onshore Transmission Investment mechanism conditional on Scottish & Southern Electricity Networks (trading as Scottish Hydro Electric Transmission plc) (SHET) subsequently securing all material planning consents thereby demonstrating its readiness to proceed with the subsequent Project Assessment stage.

This document also includes an update on the regulatory delivery model for the Isle of Skye 132kV Reinforcement project and an update on the large project delivery arrangements.

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Executive summary

Isle of Skye 132kV reinforcement and what this document covers

In May 2023 we consulted¹ on our minded-to position to approve the Final Needs Case (FNC) submission from Scottish & Southern Electricity Networks (trading as Scottish Hydro Electric Transmission plc) (SHET) regarding the proposed 'Isle of Skye 132kV Reinforcement' (Skye) project. The project's Initial Needs Case (INC) was submitted for our assessment under the Large Onshore Transmission Investment (LOTI) mechanism in July 2021.

The project is mainly driven by the need to address the condition of current assets (non-load related intervention); however, the proposed designs include an upgrade to the overhead line (OHL) and new underground cabling to enable future additional renewable generation (load related intervention) in the Skye area to be connected. SHET estimates that the project will cost c.£488m.

In accordance with our RIIIO-2 price control arrangements, we have assessed the need for the project under our LOTI re-opener mechanism² and on the suitability of applying a late competition model to the project. This document summarises the outcome of that assessment, our decision on the FNC assessment, and the next steps for the project.

Final Needs Case assessment

We are satisfied that there is sufficient evidence of a clear needs case for the Skye project on the basis that there is the need for asset intervention and that new generation has shown enough progress to warrant adding additional capacity to the Skye circuit. Having considered the consultation responses, we do not consider that any of the information provided requires us to change the position we adopted in the FNC consultation³, and our decision is that SHET has made the case that its proposed intervention is required.

We consider that the cost benefit analysis (CBA) undertaken by SHET is robust and supports the need for the project. We are also satisfied that the CBA has considered the most relevant technical options and that option 4a is the optimal option.

¹ [Isle of Skye project - Final Needs Case consultation](#)

² [Special condition 3.13 of the Electricity Transmission licence](#) and the [LOTI Guidance](#)

³ [Isle of Skye project - Final Needs Case consultation](#), paragraphs 2.17-2.18

Delivery via a competition model

The Skye project is being considered under the LOTI mechanism as part of the RIIO-2 price control and in line with our Final Determinations for RIIO-2, we have also assessed the suitability of the Skye project for 'late model' competition⁴. We consider that the Skye project would meet the criteria for delivery via a late model competition⁵.

Notwithstanding that, however, we have decided not to apply a late competition model and to retain the Skye project within the LOTI mechanism as part of the RIIO-2 price control. Our reasoning is that we do not envisage being able to implement either the Competitively Appointed Transmission Owner (CATO) or the Special Purpose Vehicle (SPV) model for this project without causing significant delay to delivery. In addition, we do not have sufficient confidence in the benefits that would be delivered to consumers by applying the Competition Proxy Model (CPM).

Large project delivery

In our RIIO-2 Final Determinations⁶ we set out our approach to late delivery of large projects (>£100m) with the aim to ensure companies do not benefit from delay and to protect consumers from the impact of such a delay.

We are not deciding at this stage which large project delay mechanism should apply to the project but we will consult on which mechanism to apply at the Project Assessment (PA) stage.

Decision and next steps

This document confirms our decision to approve SHET's FNC for the Skye project under the LOTI mechanism. Our decision is conditional upon SHET securing all material planning consents required for the project to proceed⁷.

⁴ 'Late model' competition refers to the late models of competition (i.e. run for delivery once a project is sufficiently developed) identified for consideration for LOTI projects within the RIIO-2 Period (the Competitively Appointed Transmission Owner (CATO) model, the Special Purpose Vehicle (SPV) model, and the Competition Proxy Model (CPM)). For further information, see [RIIO-2 Final Determinations](#)

⁵ The criteria are new, separable, and high value (£100m or above)

⁶ [RIIO-2 Final Determinations](#), ET Annex (REVISED), page 32 onwards

⁷ In accordance with Special Condition 3.13.14, we issued a direction relieving NGET of the need to secure all material planning consents prior to seeking approval to submit its FNC. See [Isle of Skye project: Direction to allow Final Needs Case submission](#)

SHET has indicated that they will obtain all material planning consents by December 2023.

We expect SHET to inform us once the material planning consents are secured. Once SHET have confirmed this, we will proceed to the next stage of the LOTI assessment which is the PA stage.

1. Introduction

Context

- 1.1 Great Britain's (GB) onshore electricity transmission network is currently planned, constructed, owned, and operated by three Transmission Owners (TOs): National Grid Electricity Transmission (NGET) in England and Wales, Scottish Power Transmission (SPT) in the south of Scotland, and Scottish Hydro Electric Transmission (SHET) in the north of Scotland. We regulate these TOs through the RIIO (Revenue = Incentives + Innovation + Outputs) price control framework. For offshore transmission, we appoint Offshore Transmission Owners (OFTOs) using competitive tenders.
- 1.2 The incumbent onshore TOs are currently regulated under the RIIO-2 price control which started on 1 April 2021 and will run for 5 years. Under this price control we developed a mechanism for assessing the need for, and efficient cost of, large electricity transmission reinforcement projects. This mechanism is called 'Large Onshore Transmission Investment' (LOTI). Once the need for and the costs of projects have become more certain, the TOs submit construction proposals and seek funding for them. As explained in chapter 9 of the RIIO-2 Final proposals – Core Document⁸ (REVISED), all projects that come forward for assessment via the LOTI re-opener mechanism during the RIIO-2 period will be considered for their suitability for delivery through one of the late competition models.
- 1.3 Network investment is informed by the Future Energy Scenarios (FES)⁹ and the Network Options Assessment (NOA)¹⁰ which are developed and published annually by the Electricity System Operator (ESO). A key focus of the FES 2020 is the inclusion of the Government's ambition¹¹ to deliver up to 50GW by 2030 and the legally binding¹² UK Government Net Zero targets which are to be achieved by 2050. The transition to a Net Zero economy will see increased demand on transmission boundary capability which will need to be facilitated by critical network reinforcements.

⁸ [RIIO-2 Final Determinations](#), Core Document (REVISED), chapter 9

⁹ ESO [Future Energy Scenarios \(FES\)](#)

¹⁰ ESO [Network Option Assessment \(NOA\)](#)

¹¹ Government's [British energy security strategy](#)

¹² [The Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)

Overview of LOTI re-opener mechanism

- 1.4 The LOTI re-opener mechanism provides TOs with a route to apply for funding for large investment projects that can be shown to deliver benefits to consumers, but that were uncertain or not sufficiently developed at the time we set costs and outputs for the RIIO-2 price control period. The LOTI mechanism provides a robust assessment process through which we can ensure that TO proposals represent value for money for existing and future consumers.
- 1.5 To qualify for the LOTI mechanism, TO proposals must meet the following criteria:
- a) be expected to cost £100m or more of capital expenditure; and
 - b) be, in whole or in part, load related¹³.
- 1.6 We are satisfied that the Skye project meets the criteria and is eligible¹⁴ as a LOTI project. We are therefore assessing the Skye project in accordance with the LOTI mechanism as detailed in the LOTI Guidance¹⁵.

Stages of our LOTI assessment

- 1.7 Following the approval of eligibility, our LOTI mechanism is made up of three main stages:
1. **Initial Needs Case (INC)** – The usual focus of our assessment at this stage is to review the technical and/or economic need for the project, the technical options under consideration, and the TO's justification for taking forward its preferred option for further development.

¹³ Part (b) of this criterion used to be either "wholly or partly load related" or "shared-use or sole-use generator connection project related". As a result of a licence modification, which came into effect on 24 July 2021, the "shared-use or sole-use generator connection project" criterion no longer applies. However, this does not impact the project as this is in part a load related project. For further information on the licence modification, see the [Decision on the proposed modifications to the RIIO-2 Transmission, Gas Distribution and Electricity System Operator licence conditions](#)

¹⁴ [RIIO-2 Final Determinations](#), NGET Annex (REVISED), section 3.60

¹⁵ [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#)

2. **Final Needs Case (FNC)** – Following all material planning consents being secured for the project, the TO is then required to submit a FNC¹⁶. The focus of our assessment at this stage is to confirm the need for the project by checking that there have been no material changes in technical and/or economic drivers that were established in the INC.

3. **Project Assessment (PA)** – If the FNC is approved, the TO will then need to apply for a PA direction. The focus of our assessment at this stage is the assessment of the proposed costs and delivery plan that the TO has in place for the project, with a view to potentially specifying in the TO’s licence a new LOTI Output, a LOTI delivery date, and setting the efficient cost allowances that can be recovered from consumers for delivery of the project.

Related publications

- 1.8 RIIO-2 Final Determinations – Core Document and NGET Annex – both REVISED: [Ofgem.gov.uk/publications-and-updates/riio-2-final-determinations-transmission-and-gas-distribution-network-companies-and-electricity-system-operator](https://www.ofgem.gov.uk/publications-and-updates/riio-2-final-determinations-transmission-and-gas-distribution-network-companies-and-electricity-system-operator)
- 1.9 LOTI Re-opener Guidance document: [Ofgem.gov.uk/publications-and-updates/large-onshore-transmission-investments-loti-re-opener-guidance](https://www.ofgem.gov.uk/publications-and-updates/large-onshore-transmission-investments-loti-re-opener-guidance)
- 1.10 Isle of Skye – Final Needs Case consultation: [Ofgem.gov.uk/publications/isle-skye-project-final-needs-case-consultation](https://www.ofgem.gov.uk/publications/isle-skye-project-final-needs-case-consultation)

¹⁶ In accordance with Special Condition 3.13.14, we may issue a direction relieving the TO from the requirement to obtain all material planning consents prior to submitting the FNC. We [issued a direction](#) for SHET in accordance with Special Condition 3.13.14 relieving them from that requirement. We also said in our FNC consultation that any decision to approve the FNC would be conditional on SHET obtaining all material planning consents: [Isle of Skye project - Final Needs Case consultation](#), Executive summary - Final Needs Case assessment

2. Isle of Skye Final Needs Case assessment

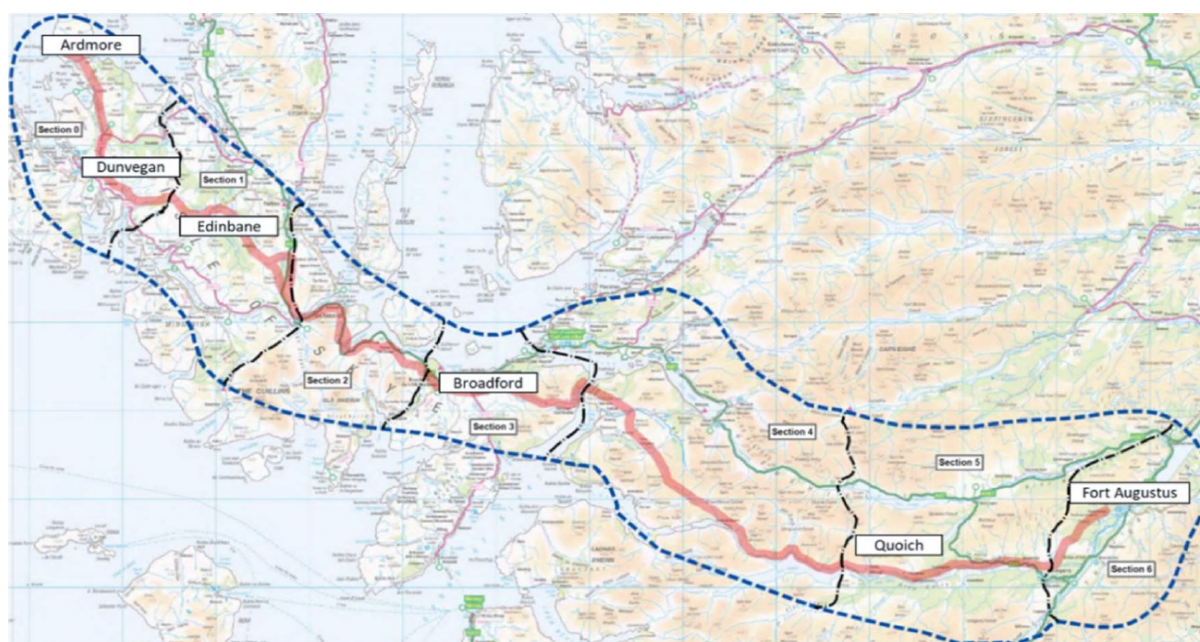
Section summary

This chapter summarises our May 2023 consultation position regarding the design choices SHET has made to date and the CBA underpinning the need and design of the project, as well as the consultation responses and our decision following consideration of those responses.

Overview of NGET's proposal

- 2.1 SHET proposes to replace the existing single 132kV OHL which spans across 160km between Fort Augustus on the mainland to Ardmore on the Isle of Skye, as per figure 1. The project is mainly driven by the need to address the condition of current assets (non-load related intervention); however, the proposed designs include an upgrade to the OHL and new underground cabling (load related intervention) to enable future renewable generation in the Skye area to connect.
- 2.2 The scope of work for the Skye project consists of:
- 110km of new build 132kV double circuit OHL between Fort Augustus and Edinbane substations;
 - 24km of new build 132kV double circuit underground cables between Fort Augustus and Edinbane substations, and associated sealing end compounds at the cable remote ends;
 - 24km of new build 132kV single circuit OHL between Edinbane and Ardmore substations;
 - Establishing a new 132kV Gas Insulated Switchgear (GIS) switching station at the existing Broadford substation to connect to the current and planned additional 132kV Grid Supply Points (GSPs) and required reactive equipment as part of underground cable works; and
 - A 132kV GIS switching station at the existing Edinbane substation to connect to the current and planned additional 132kV infrastructure and required reactive compensation equipment.

Figure 1: Map of the Skye 132kV transmission line



2.3 Our May 2023 FNC consultation¹⁷ explains why the project has been brought forward, how SHET arrived at its preferred option, and the options that were considered in the CBA. The CBA results along with justification for SHET’s preferred option were also explained.

Consultation position, responses, and decision

2.4 Five stakeholders responded to our FNC consultation. All responses were non-confidential, and we have published the full text of the consultation responses online¹⁸.

2.5 The remainder of this chapter sets out our consultation position, stakeholder responses, and our decision on the project’s drivers, optioneering and CBA.

Project drivers

Consultation position

¹⁷ [Isle of Skye project - Final Needs Case consultation](#), chapter 2

¹⁸ [Isle of Skye project - Final Needs Case consultation](#), ‘Response documents’ – Isle of Skye FNC consultation responses

- 2.6 We agreed that SHET has clearly demonstrated the need for asset intervention and that security of supply from a transmission access perspective requires reinforcement of the Skye network.
- 2.7 We also agreed with SHET that the level of generation wanting to connect to the transmission network has progressed since the INC stage and that this supports SHET's stance that additional capacity is required to allow new generation to connect to the Skye network.

Consultation responses and our views on them

- 2.8 All five consultation responses agreed with our consultation position.
- 2.9 One stakeholder queried why, if we decide to approve the FNC for the project, our FNC decision would be made conditional on SHET securing all material planning consents. The stakeholder stated that the need should not be planning dependent. For clarification, the planning consents are required for SHET to commence construction of its proposed option design; the consents are not required for confirmation of the need for the Skye project.

Decision following consultation

- 2.10 Having considered the consultation responses, our decision is that the project drivers evidence a clear need for the project.

Options considered

Consultation position

- 2.11 Our consultation position was that SHET had considered an appropriate range of options.
- 2.12 We agreed with SHET that options 0 and 5a are not likely to deliver the best outcomes for consumers.
- 2.13 We noted that option 1b was ultimately ruled out since SHET demonstrated to our satisfaction that sufficient generation movements between the INC and FNC stages meant that pursuing option 1b would result in an oversubscribed asset that would not be able to accommodate half of the current contracted generation nor any future generation.

- 2.14 Options 4a and 4a01 were both similar in design and power transfer capability, albeit option 4a01 was costlier. SHET however explained that since the INC, the design of option 4a01 changed due stakeholder feedback and this resulted in a solution that was non-compliant with the National Electricity Transmission System (NETS) Security and Quality of Supply Standard (SQSS)¹⁹. As a result, we agreed that a non-compliant SQSS design solution should be discounted from consideration.
- 2.15 SHET flagged and confirmed at the INC stage and FNC stage respectively that 24km of underground cabling will be required. We agreed that the proposed underground cabling is necessary to address the visual amenity impact of the project. We also accepted that mitigating the visual amenity impact by using underground cabling will be a relevant consideration when securing planning consents.

Consultation responses and our views on them

- 2.16 Four of the consultation responses agreed with our consultation position. The fifth response noted that the stakeholder was not qualified to comment.
- 2.17 Of the four responses that agreed with our consultation position, one queried why there was no mention of the risk of landslides in the area. The stakeholder also asked why there was no mention of ameliorating the visual impact of the project. SHET did note the landslide issue and took this into account when conducting its options analysis. SHET also considered stakeholder feedback with respect to ameliorating the visual impacts of the project, an example of which was SHET adjusting its proposed design to add new underground cabling to address stakeholder visual amenity concerns where possible. We are satisfied that SHET has considered both the issues raised by the stakeholder and taken appropriate action to address them.

Decision following consultation

¹⁹ The National Electricity Transmission System (NETS) Security and Quality of Supply Standards (SQSS) sets out the criteria and methodology for planning and operating the GB transmission system in a compliant manner

2.18 Having considered the consultation responses, our decision is that the optioneering phase considered a suitable range of technical options and that option 4a is the optimal solution.

CBA results

Consultation position

2.19 We agreed with SHET that the CBA supports the need for investment on this part of the network and that it justifies SHET's progression of option 4a as the preferred option.

2.20 We were also satisfied that option 4a remained the most appropriate option under a reasonable range of tested sensitivities.

Consultation responses and our views on them

2.21 Four of the consultation responses agreed with our consultation position. The fifth response noted that the stakeholder was not qualified to comment.

Decision following consultation

2.22 Having considered the consultation responses, our decision is that an appropriate range of viable options and sensitivities were tested in the CBA.

3. Delivery via a competition model

Section summary

This chapter summarises our May 2023 consultation position, consultation responses regarding whether to apply a late competition model, and our decision following consideration of those responses.

Background

3.1 Competition in the design and delivery of energy networks is a central aspect of the RIIO-2 price control. Competition can have a key role to play in driving innovative solutions and efficient delivery that can help meet the decarbonisation targets at the lowest cost to consumers. We set out in our Final Determinations²⁰ for RIIO-2 that during the RIIO-2 period, all projects that meet the criteria for competition and are brought forward under an uncertainty mechanism²¹ will be considered for potential delivery through a late competition model.

Consultation position, responses, and decision

Consultation position

- 3.2 Our consultation position was that we considered the Skye project to meet the criteria²² to qualify for late model competition.
- 3.3 We noted, however, that both the Competitively Appointed Transmission Owner (CATO) and Special Purpose Vehicle (SPV) competition models would lead to significant project delays. As a result, our view was that it would not be appropriate to apply either model.
- 3.4 We also stated that we did not have sufficient confidence in the benefits to consumers that could be delivered by applying the Competition Proxy Model (CPM).

²⁰ [RIIO-2 Final Determinations](#), Core Document (REVISED), chapter 9

²¹ [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#), pages 9-11

²² [Guidance on the criteria for competition](#)

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- 3.5 For those reasons we proposed to retain the Skye project within the LOTI mechanism so that the TO delivers the project as part of the RIIO-2 price control.

Consultation responses and our views on them

- 3.6 All five consultations responses agreed with our consultation position.

Decision following consultation

- 3.7 Having considered the consultation responses, our decision is that the Skye project should be retained within the LOTI mechanism and be delivered by SHET as part of the RIIO-2 price control.

4. Large project delivery

Section summary

This chapter summarises our May 2023 consultation position, consultation responses regarding large project delivery options, and our decision following consideration of those responses.

Background

4.1 In the RIIO-2 Final Determinations²³, we set out our approach to late delivery of large projects (i.e. >£100m). The aim of the approach is to ensure that a network company does not benefit financially from a delay to project delivery and that consumers are protected from any delay in delivery. To this end, we have considered setting a Project Delivery Charge (PDC) which will apply for each day a project is delivered late.

Consultation position, responses, and decision

Consultation position

4.2 We stated that we would consider the appropriate project delivery mechanism and PDC level at the PA stage. We also noted that in setting the PDC level we will look to understand the impact of any delay in terms of costs to consumers.

Consultation responses and our views on them

4.3 Four of the consultation responses agreed with our consultation position. The fifth response noted that the PDC should be substantial.

Decision following consultation

4.4 Having considered the consultation responses, our decision is that it remains appropriate to consult and decide on the appropriate project delivery mechanism and PDC level at the PA stage.

²³ [RIIO-2 Final Determinations](#), ET Annex (REVISED), page 32 onwards

5. Next steps

Section summary

This chapter sets out the next steps in our assessment of the Skye project.

- 5.1 We issued a direction on 15 December 2022 in accordance with Special Condition 3.13.14 relieving SHET of the requirement to obtain all material planning consents prior to submitting their FNC. We said in our FNC consultation that any decision to approve the FNC would be conditional upon SHET obtaining all material planning consents²⁴.
- 5.2 SHET have yet to obtain all material planning consents and thus our decision to approve SHET's FNC for the Skye project under the LOTI mechanism is conditional upon SHET securing all material planning consents. SHET has indicated that they will obtain these consents by December 2023.
- 5.3 The next stage of the LOTI assessment process is the PA stage. We will not proceed to this stage until SHET present us with confirmation that all material planning consents have been successfully obtained.

²⁴ [Isle of Skye project - Final Needs Case consultation](#), Executive summary - Final Needs Case assessment