

Argyll and Kintyre project: Initial Needs Case decision

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Following our 23 September 2022 Initial Needs Case consultation, this document confirms our decision to approve the Initial Needs Case for the Argyll and Kintyre (“Argyll”) 275kV Reinforcement Strategy project. This document also includes an update on the regulatory delivery model for the Argyll project and an update on the Large Project Delivery arrangements.

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Executive summary

Needs case

In September 2022 we consulted¹ on our minded-to position to approve the Initial Needs Case (INC) submission from Scottish & Southern Electricity Networks (trading as Scottish Hydro Electric Transmission plc) (SHET), who own and operate the transmission network in the north of Scotland, regarding the proposed 'Argyll and Kintyre 275kV Reinforcement Strategy' (Argyll) project. The Argyll project was submitted for our consideration under the Large Onshore Transmission Investment (LOTI) mechanism in March 2022.

The Argyll project is driven by the need for the transmission network to accommodate increased renewable energy generation expected to connect in the local area whilst ensuring security of supply is maintained across the network. SHET has estimated that the Argyll project will cost c.£352 million to deliver.

In accordance with the RII0-T2 price control arrangements, we have assessed the need for the Argyll project under the Large Onshore Transmission Investment (LOTI) mechanism² and its suitability for delivery through a competition model.

This document summarises our confirmed decisions from our INC assessment and next steps for the project.

LOTI INC assessment

We are satisfied that there is sufficient evidence of a clear needs case for the Argyll project to accommodate additional renewable generation and to increase the network rating to accommodate this generation and remove the need for the current derogation. This position is as per our proposed INC position³. Having taken into consideration the consultation responses received, we are content that SHET has made the case that its proposed intervention is required.

¹ [Argyll and Kintyre project – Initial Needs Case consultation](#)

² This is set out in Special Condition 3.13 of the Electricity Transmission Licence

³ [Argyll and Kintyre project – Initial Needs Case consultation](#), paragraphs 2.30-2.32

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

We agree that at this point the preferred option, option 05, put forward by SHET is reasonable and likely to provide the optimal solution given the background generation assumptions that underpin the CBA. However, given the recent development of a statutory consultee objecting to the section 37 planning application for the overhead line (OHL) from Creag Dhubh to Dalmally-Windyhill, we are engaged in ongoing dialogue with SHET to understand how this will affect SHET's preferred route and whether a route revision may be required. The section 37 objection will now trigger a public local inquiry which will take place in due course.

Delivery model

In line with our Final Determinations for the RIIO-T2 period, as the Argyll project is being considered under the LOTI mechanism, we have assessed the suitability of the project for 'late model' competition⁴. Our view remains that the Argyll project would meet the criteria for delivery via a 'late model' competition⁵.

Given the objection to the section 37 planning application as per paragraph 2.19, we will continue to engage with SHET to understand how this affects SHET's delivery timeline and whether a delivery delay warrants the application of a late competition model for consumers benefit. Considering this, our updated view is that we will reach a decision on the most applicable competition model by the FNC stage.

Large project delivery

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 CATO model, the SPV model and the CPM). For further information, see [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#), Core Document (REVISED), chapter 9

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

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

Our position remains as per our INC consultation position⁷. In aiming to ensure that SHET will not benefit from delay in the delivery of this project, we are satisfied that either reprofiling or a milestone approach should be applied. To protect the interests of existing and future consumers, we are also satisfied that a Project Delivery Charge (PDC) should be applied. We expect our decision on the level of PDC to be made at the Project Assessment (PA) stage.

We will continue to engage with SHET on both the approach to reprofiling/milestone and the application of a PDC.

Decision and next steps

This document confirms our approval of SHET’s INC for the Argyll project.

We expect to continue engaging with SHET as to the most appropriate FNC submission date given the section 37 planning application objection. We will also continue to engage with SHET to understand how this will affect SHET’s preferred route and its impact on SHET’s route design and programme delivery.

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

⁷ [Argyll and Kintyre project – Initial Needs Case consultation](#), chapter 4

1. Introduction

Context

1.1. The 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 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. SHET is currently regulated under the RIIO-ET2 price control, which started on 1 April 2021 and will run for 5 years. Under SHET’s licence conditions, the LOTI mechanism allows for us to assess the need for, and efficient cost of, large and uncertain electricity transmission reinforcement projects. All projects that are submitted for assessment via LOTI during the RIIO-ET2 period are to be considered for their suitability for delivery through one of the late competition models.

1.3. Network investment decisions are informed by technical analysis from the Electricity System Operator (ESO) using the Great Britain (GB) Future Energy Scenarios (FES)⁸ which it develops and publishes annually. A key focus of the FES is the inclusion of the legally binding⁹ UK Government Net Zero targets, 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.

Overview of the LOTI reopener 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

⁸ The FES is the ESO’s representation of a range of different, credible ways to decarbonise the energy system to strive towards the 2050 target

⁹ [The Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)

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 related¹⁰.

Stages of our LOTI assessment

1.6. Following the approval of eligibility, our LOTI assessment process 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 requirement for the Argyll project, the technical options under consideration, and the TO's justification for taking forward its preferred option for further development.
2. **Final Needs Case (FNC)** – The focus of our assessment at this stage is to confirm the need for the Argyll project by checking that there have been no material changes in technical and/or economic drivers that were established at INC.
3. **Project Assessment (PA)** – If the FNC is approved, the TO will then need to apply for a Project Assessment 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 Argyll 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 Argyll project.

¹⁰ 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 RIIIO-2 Transmission, Gas Distribution and Electricity System Operator licence conditions](#)

1.7. SHET submitted the INC for the Argyll project in March 2022. We consulted on our assessment of the INC in September 2022.

1.8. All non-confidential responses to our consultation are published on our website alongside the decision.

Related publications

1.9. RIIO-2 Final Determinations: [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#)

1.10. LOTI Re-opener Guidance: [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance | Ofgem](#)

1.11. Argyll and Kintyre - Initial Needs Case consultation: [Argyll and Kintyre project - Initial Needs Case consultation | Ofgem](#)

2. Initial Needs Case and our views

Section summary

This chapter summarises the key design choices SHET has made to date on the Argyll project and the Cost Benefit Analysis (CBA) underpinning the need for, and design of, the project. It sets out on these as presented in our September 2022 consultation and summarises the key consultation responses. Finally, it sets out our decision to approve the INC and our reasons for that decision.

Overview of SHET's proposal

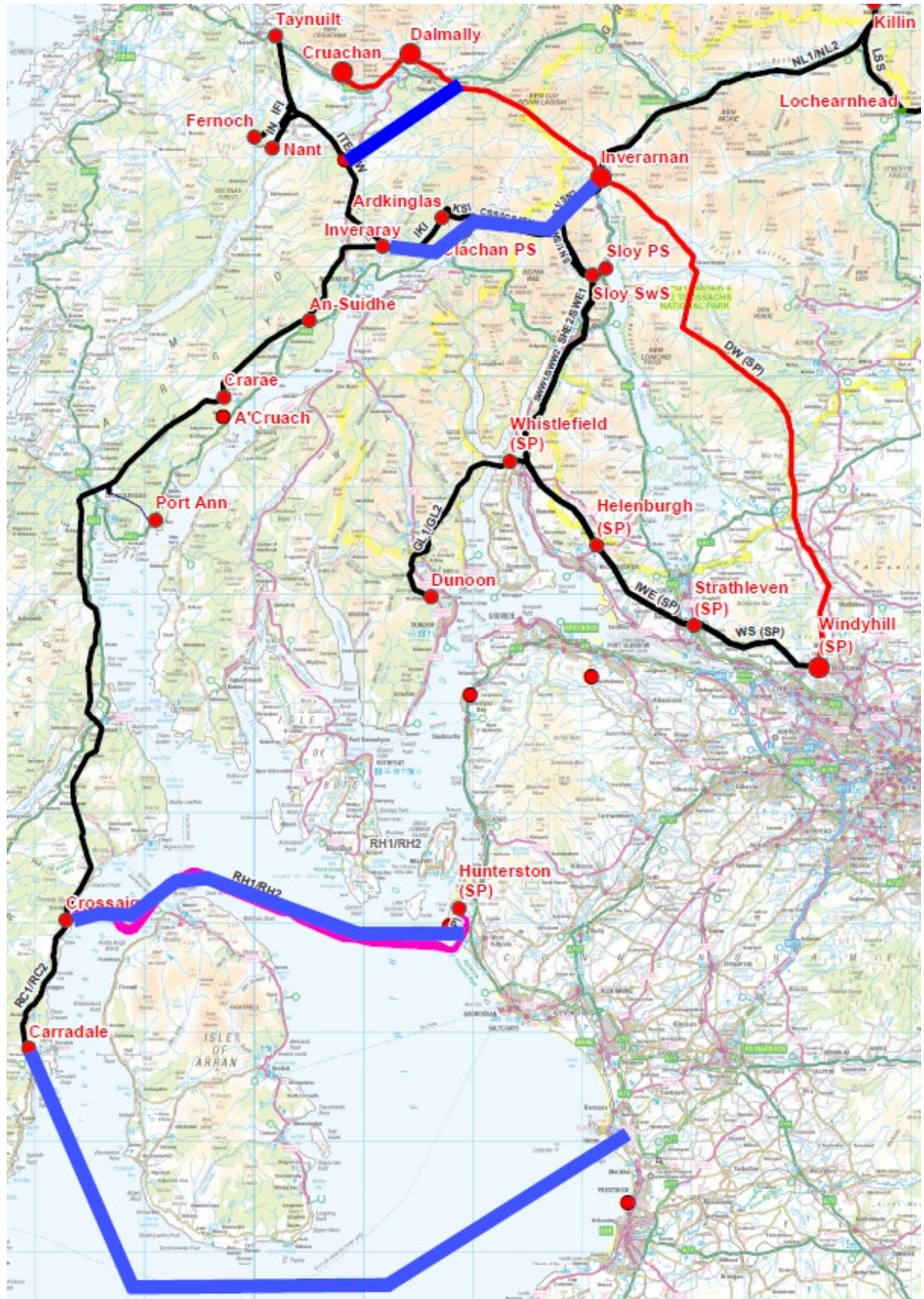
2.1. The 132kV transmission network in the Argyll and Kintyre area, situated in the southwest of Scotland, was originally developed in the late 1950s and early 1960s. The original steel lattice towers ran over 80km near coastal areas and included several loch crossings. The Argyll and Kintyre network supplied customer demand via Grid Supply Point (GSP)¹¹ situated near the settlements in the area.

2.2. The geography of the region comprises a varying landscape of craggy upland and mountains cut through by deep glens, freshwater, and sea lochs. This results in terrain in which SHET considers construction, operations, and maintenance can be challenging.

2.3. The current Argyll 132kV transmission network and surrounding area network is shown in figure 3. The map also shows four potential export routes marked in blue from Argyll to the wider GB network that could be built upon to increase local network capacity in order to address the increasing amount of generation in the area. Finally, Scottish Power Transmission's (SPT) existing 275kV Overhead Line (OHL) is also represented by the red line.

Figure 1: Current 132kV transmission network

¹¹ A Grid Supply Point (GSP) is a system connection point at which the Transmission system is connected to a Distribution system. The GSP is SSEN Transmission's interface point with Scottish Hydro Electric Power Distribution plc (SHEPD)



2.4. Our September 2022 INC consultation¹² explains why the Argyll project has been brought forward, how SHET arrived at its preferred option for reinforcement, and the options that were considered in the CBA. The CBA results along with justification for SHET’s preferred option are also explained.

Consultation position, responses, and updated view

2.5. Thirteen stakeholders responded to our Argyll INC consultation¹³. All responses were non-confidential¹⁴. The respondents included two TOs, an independent transmission company, the ESO, a local community council, and local residents.

2.6. 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

2.7. We agreed that the Argyll project is being driven by the need to accommodate additional renewable generation and to ensure that security of supply is maintained.

Consultation responses and our views on them

2.8. Eight respondents agreed with our consultation position on the drivers for the Argyll project. One was uncertain. One disagreed. Three expressed no view.

2.9. One respondent disagreed with our consultation position, raising the point that it is not clear that the additional generation capacity will be implemented, noting that there is a risk that developments to other technologies (e.g. tidal) in other locations will leave the proposed Argyll transmission infrastructure underutilised. Another respondent who was uncertain highlighted that the generation figures presented in the INC consultation (Figure 5, p.18) appear high given planning constraints. They further noted that they would

¹² [Argyll and Kintyre project – Initial Needs Case consultation](#), chapter 2

¹³ Ibid.

¹⁴ [Responses](#) to our September 2022 Argyll and Kintyre INC consultation – see ‘Response documents’

strongly support the need for a more detailed update on actual generation in SHET's FNC submission.

2.10. We have taken stakeholder responses into consideration and as noted in our INC consultation, we recognise the challenge associated with generation uncertainty when assessing investment proposals and the risk of a significantly under or oversized asset. As such, we need to be satisfied with the assumptions that underpin LOTI investments as per our Argyll INC consultation paragraph 2.42. INC paragraphs 2.9 and 2.10 explained that SHET used a 'Scenario Assessment Tool' (SAT) to assess the probability of generation connecting to the Argyll network, and that we suggested changes to SHET to place higher emphasis on a project's planning status so that we could see evidence that generators are taking steps to deliver their proposed generation. Furthermore, the existing network can only accommodate an additional 108MW of generation and to enable generation beyond this, reinforcement of the line will be required. We therefore consider that the two main drivers for this project are in the best interest of consumers. That said, we still expect SHET to update its generation forecasts as part of its FNC submission as set out in paragraph 2.45 of our Argyll INC consultation.

Updated view

2.11. For the reasons set out above, we remain satisfied that the two main drivers as per paragraph 2.7 underpin the need for the Argyll reinforcement works project.

Optioneering

Consultation position

2.12. We explained that we are satisfied SHET considered a suitable range of technical options, noting that the location of generation on Argyll is important in managing the power flows and in maximising the power that can be exported from the network.

2.13. We agreed that options with reduced technical scope be discounted by SHET given that these solutions would not deliver a NETS SQSS¹⁵ compliant network.

¹⁵ National Electricity Transmission System (NETS) System Security and Quality of Supply Standards (SQSS)

2.14. We noted that the five selected options studied by SHET would all add power transfer capability, albeit to varying degrees, and would therefore increase the amount of renewable generation that can connect to the Argyll and Kintyre network. Furthermore, they all also remove the need for the current derogation.

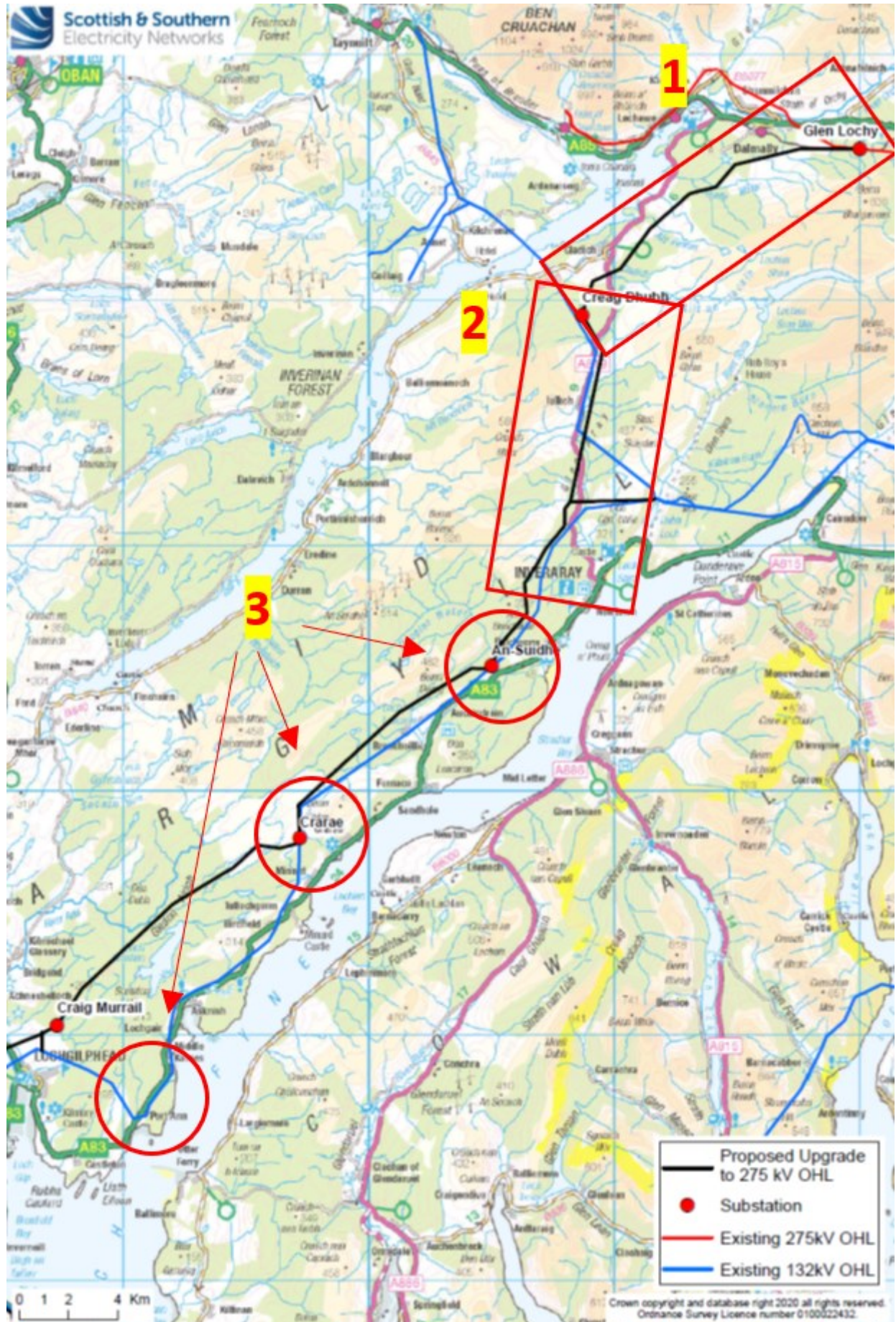
2.15. Finally, we mentioned that we support option 05 on the basis that it would allow the circuit to be operated at 275kV, provide system interconnectivity and operational flexibility, and given its capital cost.

Consultation responses and our views on them

2.16. Three respondents agreed with our consultation position on optioneering. Seven disagreed. Three expressed no view.

2.17. The seven respondents who disagreed with our consultation position are opposed to the development of the Creag Dhubh to Dalmally 275kV new OHL section. This section is indicated by box **1** in Figure 2 below. The objections mainly relate to the OHL causing adverse visual and landscape impacts. Concerns focused on the visual impact to the listed Duncan Ban monument and to the local residents in terms of the effect on house prices, the local tourism industry, and the general welfare of the local community. There was also strong support for an alternative underground option that could alleviate the visual and landscape issues highlighted above.

Figure 2: Map showing SHET’s proposed transmission works



2.18. We have considered stakeholder responses, however in terms of optioneering we do not decide what project designs, plans, or routes SHET should pursue¹⁶. SHET's stakeholder engagements, such as their online seminars and public consultations, are the appropriate forums to make such challenges. SHET held a specific public consultation regarding the Creag Dhubh – Dalmally 275kV OHL connection, and objections to SHET's routing would have been raised through these engagements.

2.19. The planning process is the appropriate channel to address route specific objections, and SHET has brought to our attention that a statutory consultee objected to the section 37 planning application for the OHL from Creag Dhubh to Dalmally-Windyhill (i.e. the section indicated by box 1 in Figure 2). This objection will now trigger a public local inquiry which will take place in due course. Although we do not decide what route SHET should pursue, we will continue to engage with SHET to understand how the section 37 planning application objection will affect SHET's preferred route and the impact this will have on consumers.

Updated view

2.20. For the reasons set out above, we remain satisfied that the optioneering phase considered a suitable range of technical options; however, given the section 37 objection, we will continue to engage with SHET to understand what effect this will have on SHET's proposed solution.

Cost Benefit Analysis

Consultation position

2.21. We agreed that the CBA supports the need for investment on this part of the network. We also considered that SHET's preferred option, option 05, is both reasonable and likely to provide the optimal solution given the project's drivers and the background generation assumptions that underpin the CBA.

Consultation responses and our views on them

¹⁶ [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#), "The role of Ofgem, TOs and the ESO", paragraph 2.13

2.22. Three respondents agreed with our consultation position on the CBA and the appropriateness of the options taken forward. Five disagreed. Five expressed no view.

2.23. The five respondents who disagreed with our consultation position mainly objected to the CBA focusing solely on the monetary costs and benefits associated with SHET implementing the Argyll project as opposed to looking at broader costs and benefits such as those relevant to the local community. The consensus among these respondents is that the CBA is too narrow in scope and thus flawed.

2.24. We have considered stakeholder responses in forming our updated view. In terms of the CBA, we introduced¹⁷ licence modifications in 2015 requiring the ESO to carry out a CBA of network reinforcement options that the TO identifies. The CBA is focused solely on the capital expenditure costs of the proposed network reinforcement and the constraint costs that these works help relieve. The LOTI investment case submitted by SHET is comprised of multiple documents, one of which is the ESO's CBA. In conducting our analysis and reaching a decision, we looked at all aspects of SHET's submission to reach our conclusion and focused on what is in the best interest of consumers.

Updated view

2.25. For the reasons set out above, we remain satisfied that an appropriate range of viable options were tested in the CBA; however, as per our view in the optioneering section, given the section 37 objection we will continue to engage with SHET to understand what effect this will have on SHET's proposed solution.

¹⁷ [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#), "The role of Ofgem, TOs and the ESO", paragraph 2.15

3. Delivery model

Section summary

This chapter summarises our views as presented in our September 2022 consultation on whether the Argyll project meets the criteria for competition, whether to apply a late competition model, and summarises the key responses to that consultation. Finally, it sets out our updated view which is to reach a decision on the most applicable competition model for the Argyll project at the FNC stage.

Background

3.1. Competition in the design and delivery of energy networks is a central aspect of our RII0-T2 price controls. Competition has 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. All projects that meet the criteria for competition and are brought forward under an uncertainty mechanism will be considered for potential delivery through a late competition model.

Does the Argyll and Kintyre project meet the criteria for competition?

3.2. The criteria for a project to qualify for late model competition¹⁸ is that the project is:

- New
- Separable
- High value: projects of £100m or greater expected capital expenditure.

3.3. Following consideration of consultation responses, we remain satisfied that, as per paragraph 3.3 of our INC consultation, the Argyll project still meets all the above criteria.

Consultation position, responses, and updated view

¹⁸ [Guidance on the criteria for competition](#)

Consultation position

3.4. We did not consider that implementing either the Competitively Appointed Transmission Owner (CATO) or Special Purpose Vehicle (SPV) model for the Argyll project would be possible without causing delay to its delivery, and we did not have sufficient confidence in the benefits to consumers that would be delivered by applying the Competition Proxy Model (CPM). Considering this, our minded-to decision was to retain the Argyll project within the LOTI mechanism of the RIIO-2 framework.

Consultation responses and our views on them

3.5. Five respondents agreed with our consultation position to retain the Argyll project within the LOTI mechanism as part of the RIIO-2 framework. One disagreed. Seven expressed no view.

3.6. One respondent who agreed with our consultation position noted that CATO seems to be ruled out due to legislative delays but pointed out that if CATO is the preferred competition model, then a delay seems acceptable to get it implemented. Another respondent who disagreed with our consultation position highlighted the need for Ofgem to finalise the SPV model, noting that consumers are missing out on significant benefits from competition. The same respondent also stated that they support our position of maintaining the option of competition for as long as possible.

3.7. We have taken stakeholder responses into consideration and want to clarify that all late competition models have their benefits so there is not one preferred model. In our INC consultation¹⁹, we stated that given the uncertainty surrounding CATO legislation coming into effect and the additional work required to finalise the SPV model, we did not consider that either model could be applied in a manner that would benefit consumers without causing project delay and thus would not be in the best interest of consumers. However, given the objection to the section 37 planning application as per paragraph 2.19, we will continue to engage with SHET to understand how this will affect SHET's delivery timeline.

Updated view

¹⁹ [Argyll and Kintyre project - Initial Needs Case consultation](#), paragraphs 3.8 (CATO model) and 3.10 (SPV model)

3.8. For the reasons set out above, our updated view is that taking into consideration the recent planning application objection to the Argyll project, we will reach a decision on the most applicable competition model by the FNC stage.

4. Large project delivery

Section summary

This chapter summarises our views as presented in our September 2022 consultation regarding large project delivery options and summarises the consultation responses. Our updated view remains the same as per our consultation, setting out that we will continue to engage with SHET on large project delivery and finalise arrangements at the PA stage.

Background

4.1. In our RIIO-2 Final Determinations²⁰, we set out our approach to late delivery of large projects (>£100m) by TOs. We said that we will ensure TOs will not benefit from delay to delivery of those projects by using one of the following options:

- i. If a project is delivered late, we will re-profile the allowances to reflect actual expenditure to avoid the network company benefitting from the time value of money; or
- ii. Milestone-based approach – we will set project allowances based on the delivery of specific, pre-agreed, milestones. The allowances would only be granted following confirmation that a milestone had been delivered.

4.2. We stated that we will ensure consumers are protected from delay in delivery. We said that we may therefore set a pre-agreed Project Delivery Charge (PDC) for each day a project is delivered late.

Consultation position, responses, and updated view

Consultation position

²⁰ [RIIO-2 Final Determinations](#), ET Annex (REVISED), page 32 onwards

4.3. We proposed that we will consider which mechanism is best suited for the Argyll project as well as the level of any PDC at the FNC stage. We noted that in setting the level of the PDC we will look to understand what the impact of any delay would be in terms of costs to consumers. We also proposed that the final decision on the mechanism and the PDC level will be consulted on as part of the PA stage.

Consultation responses and our views on them

4.4. One respondent agreed with our consultation position regarding our approach to LPD. Twelve expressed no view.

4.5. The respondent who agreed with our consultation position reiterated the point that SHET should not benefit financially from late project delivery. They also stated the importance of deciding on the LPD mechanism at the earliest opportunity to provide transmission owners with certainty about what penalty mechanism will be implemented.

Updated view

4.6. Our position remains unchanged as per our consultation position set out above in paragraph 4.3.

5. Next steps

Section summary

This chapter sets out the next steps in our assessment of the Argyll project under the LOTI mechanism.

5.1. The next stage of our assessment will be the FNC which SHET are proposing to submit in Q1 2023. We shall continue to engage with SHET as to the most appropriate FNC submission date given the objection to the section 37 planning application.

5.2. We expect SHET's FNC submission to include clear evidence demonstrating what mitigations are in place to address the objection to the planning application. We also expect to see continued generation progression coupled with an updated CBA to reflect up-to-date information. Our FNC assessment is expected to focus on ensuring a robust delivery plan is in place. We will also seek to ensure that any material changes in technical scope, design, or cost relative to the INC stage are fully understood and justified. As part of the FNC assessment we will also carry out a more detailed assessment of the cost assumptions associated with SHET's proposed option.

5.3. As set out in chapter 4, we will continue to engage with SHET to agree an appropriate timeline to set the LPD mechanism as well as the PDC level. In line with the LOTI guidance²¹, we will set the LPD no later than the PA stage.

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