

# Consultation

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## Argyll and Kintyre project - Final Needs Case consultation

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Response deadline: 15 September 2023

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We are consulting on our views on the Argyll and Kintyre 275kV Reinforcement Strategy (Argyll) project. We would like views from people with an interest in new transmission infrastructure, meeting the net zero challenge, and competition in onshore transmission networks. We particularly welcome responses from consumer groups, stakeholders impacted by the project, stakeholders with an interest in the costs of electricity transmission infrastructure, and transmission owners. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose, and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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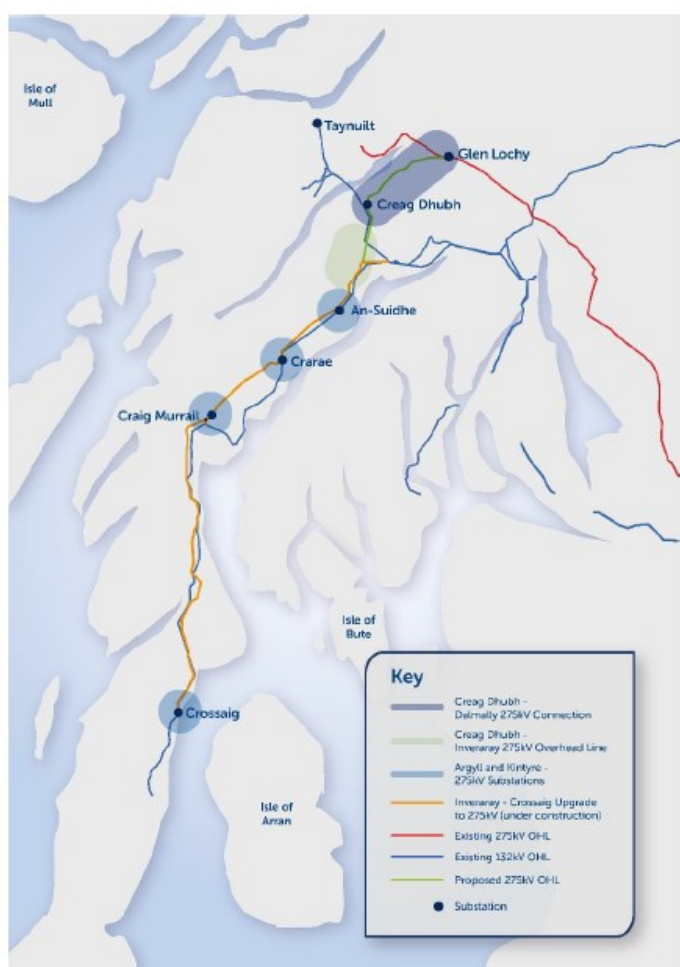
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## Executive summary

### Argyll and Kintyre project

In May 2023 we issued a direction<sup>1</sup> to allow Scottish & Southern Electricity Networks (trading as Scottish Hydro Electric Transmission plc) (SHET), who own and operate the transmission network in the north of Scotland, to submit a Final Needs Case (FNC) regarding the proposed 'Argyll and Kintyre 275kV Reinforcement Strategy' (Argyll) project which we subsequently received. The Argyll project is an electricity transmission infrastructure project that upgrades parts of the existing network from Crossaig to a connection point located east of Dalmally Village on the Scottish Power Transmission (SPT) Dalmally-Windyhill 275kV Overhead Line (OHL). With the appropriate network infrastructure, SHET intends to uprate the 132kV operation to 275kV.

Figure 1: SHET's preferred reinforcement option



<sup>1</sup> [Argyll and Kintyre 275kV Reinforcement project: Direction to allow Final Needs Case submission](#)

The Argyll project is driven by the need for the electricity transmission network to accommodate increased renewable energy generation expected to connect in the local area while ensuring security of supply is maintained across the network.

SHET estimates that the Argyll project will be completed by December 2027 at the earliest, and at a cost of £600m. This is an increase of £249m since the Initial Needs Case (INC) submission and is primarily due to SHET refining the project's scope and the challenging supply chain market conditions discussed in paragraph 2.11.

In accordance with our RIIO-2 price control arrangements, we have been assessing the project's need under our Large Onshore Transmission Investment (LOTI) re-opener mechanism<sup>2</sup> and on the suitability of applying a late competition model to the project.

This consultation seeks stakeholder views on our FNC assessment of the Argyll project. The FNC stage is intended to provide clarity for SHET and wider stakeholders on our view of the project's progress to-date and the viability of applying a late competition model.

## **Final Needs Case assessment**

We consider that there is sufficient evidence of a clear needs case for the Argyll project. SHET has made the case that generation continues to increase in the Argyll and Kintyre area and that the contracted and consented generation is increasing too.

We consider that the Cost Benefit Analysis (CBA) submission is robust and supports the project need. We are also satisfied that the CBA has considered the most relevant technical options and that the results show that option 05 is the optimal option.

We agree that SHET's preferred option, option 05, is reasonable and likely to provide the optimal solution given the background generation projections that underpin the CBA.

SHET explained that there is a Public Local Inquiry (PLI) regarding their proposed 275kV OHL between Creag Dhubh substation and Dalmally. Given this, SHET informed us that the decision on all material planning consents will not be completed until April 2024 which is after our planned publication date for our FNC decision. If we decide to approve the FNC, our **FNC decision will be made conditional on SHET securing all material planning consents required for the Argyll project to proceed to the Project Assessment (PA) stage in accordance with the LOTI Guidance<sup>3</sup>.**

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

<sup>3</sup> [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#)

## **Delivery via a competition model**

The Argyll project is being considered under the LOTI mechanism as part of the RIIO-2 price control; accordingly, and in line with our Final Determinations for RIIO-2, we have assessed the suitability of the Argyll project for 'late model' competition<sup>4</sup>. Our view is that the Argyll project would meet the criteria for delivery via a late model competition<sup>5</sup>.

However, from our assessment, 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). Given this, we propose to retain the Argyll project within the LOTI mechanism as part of the RIIO-2 price control.

## **Large project delivery**

In our RIIO-2 Final Determinations<sup>6</sup> we set out our approach to late delivery of large projects (>£100m) with the aim to ensure companies do not benefit from the delay and to protect consumers from the impact of such a delay.

We will set our minded-to decision on which large project delay mechanism(s) to apply to the Argyll project as part of the PA stage. We welcome early engagement with SHET on the matter.

## **Next steps**

We welcome responses to our consultation on the specific questions we have included in Chapters 2, 3, and 4. If you would like to respond to this document then please send your responses to: [RIIOElectricityTransmission@ofgem.gov.uk](mailto:RIIOElectricityTransmission@ofgem.gov.uk). The deadline for responses is 15 September 2023. We plan to publish our decision on the Argyll FNC in Autumn 2023.

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<sup>4</sup> '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](#)

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

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

## 1. Introduction

### What are we consulting on?

- 1.1 As set out in the LOTI Guidance, the purpose of the FNC stage is to review the progress and changes to the project since the INC stage and reach a final view on whether the project proposed by SHET is needed.

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#### Chapter 2: Argyll Final Needs Case assessment

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- 1.2 Chapter 2 summarises our findings on the FNC for this project, the conclusions of our assessment, and our proposed position. Our questions are:
- Q1: Do you agree with the need for investment on the transmission network?
  - Q2: Do you agree with our conclusions on the technical options considered?
  - Q3: Do you agree with our conclusions on the CBA?

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#### Chapter 3: Delivery via a competition model

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- 1.3 Chapter 3 summarises our proposed position on whether the project meets the criteria for late competition and whether it should be funded through a late competition model.
- Q4: Do you agree with our minded-to proposal to retain the Argyll project within the LOTI arrangements under RIIO-2?

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#### Chapter 4: Large project delivery

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- 1.4 Chapter 4 summarises the Large Project Delivery (LPD) funding mechanism and our proposed view of its applicability to the project.
- Q5: Do you agree with our proposed approach to LPD for the Argyll project?

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#### Chapter 5: Next steps

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- 1.5 Chapter 5 summarises our expectation for the next stages of assessment.

## Context

- 1.6 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.
- 1.7 The incumbent onshore TOs are currently regulated under the RIIO-2 price control which started on 01 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 and uncertain 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 will submit construction proposals and seek funding for them. As explained in chapter 9 of the RIIO-2 Final proposals – Core Document<sup>7</sup> (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.
- 1.8 Network investment is informed by the Future Energy Scenarios (FES)<sup>8</sup> and the Network Options Assessment (NOA)<sup>9</sup> which are developed and published annually by the Electricity System Operator (ESO). A key focus of the FES 2020 is the inclusion of the legally binding<sup>10</sup> 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.
- 1.9 Our assessment and proposed position set out in this document is subject to consultation and we invite stakeholders to respond using the contact details set

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<sup>7</sup> [RIIO-2 Final Determinations](#), Core Document (REVISED), chapter 9

<sup>8</sup> ESO [Future Energy Scenarios \(FES\)](#)

<sup>9</sup> ESO [Network Option Assessment \(NOA\)](#)

<sup>10</sup> [The Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)



out on the front of this document. We have indicated questions for stakeholders at the start of each chapter where relevant.

## **Overview of LOTI re-opener mechanism**

- 1.10 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.
- 1.11 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 related<sup>11</sup>.
- 1.12 We are satisfied that the Argyll project meets the criteria and is eligible<sup>12</sup> as a LOTI project. We are therefore assessing the Argyll project in accordance with the LOTI mechanism as detailed in the LOTI Guidance<sup>13</sup>.

## **Stages of our LOTI assessment**

- 1.13 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 TOs justification for taking forward its preferred option for further development.
  2. Final Needs Case (FNC) – Following the securing of all material planning consents for the project, the TO will then need to submit a FNC (unless we specify alternative timing). The focus of our assessment at this stage is to confirm the

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<sup>11</sup> 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](#)

<sup>12</sup> [RIIO-2 Final Determinations](#), NGET Annex (REVISED), section 3.60

<sup>13</sup> [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#)

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 TOs 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

- 1.14 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)
- 1.15 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)

## Consultation stages

Stage 1	Stage 2	Stage 3	Stage 4
Consultation open	Consultation closes (awaiting decision). Deadline for responses	Responses reviewed and published	Consultation decision/policy statement
11/08/2023	15/09/2023	09/2023	10/2023

## How to respond

- 1.16 We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document’s front page.
- 1.17 We have asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.
- 1.18 We will publish non-confidential responses on our website at [www.ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations)

## **Your response, data and confidentiality**

- 1.19 You can ask us to keep your response, or parts of your response, confidential. We will respect this, subject to obligations to disclose information such as under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to do so. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.
- 1.20 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we will get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.
- 1.21 If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations contained within appendix 1.
- 1.22 If you wish to respond confidentially, we will keep your response confidential but we will publish the number (but not the names) of confidential responses we receive. We will not link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

### General feedback

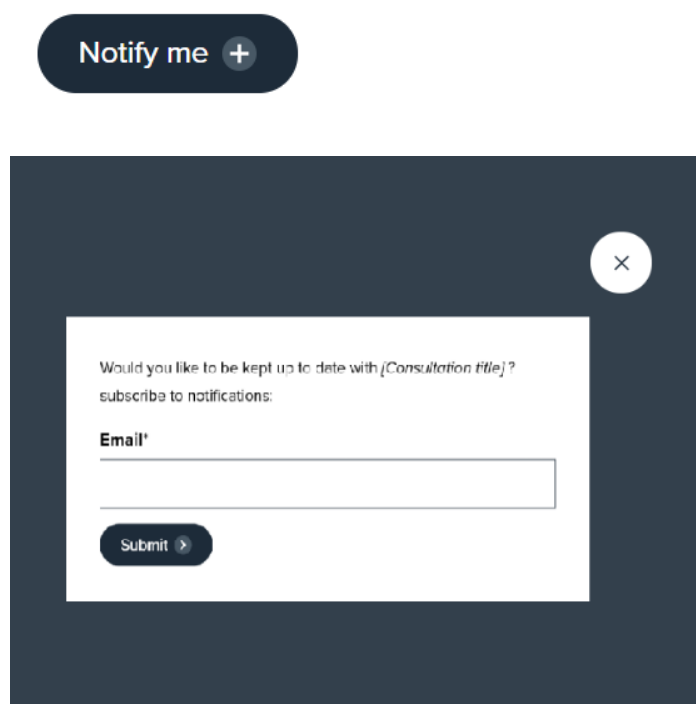
- 1.23 We believe that consultation is at the heart of good policy development. We welcome any comments about how we have run this consultation. We would also like to get your answers to these questions:
- 1) Do you have any comments about the overall process of this consultation?
  - 2) Do you have any comments about its tone and content?
  - 3) Was it easy to read and understand? Or could it have been written better?
  - 4) Were its conclusions balanced?

- 5) Did it make reasoned recommendations for improvement?
- 6) Any further comments?

1.24 Please send any general feedback comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk)

## How to track the progress of the consultation

1.25 You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website, [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations)



1.26 Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:

Upcoming > Open > Closed (awaiting decision) > Closed (with decision)

## 2. Argyll and Kintyre Final Needs Case assessment

### Section summary

This chapter sets out the key decisions SHET has made to date on the project. It then explains our findings on the technical need, options, and CBA.

### Questions

- Q1. Do you agree with the need for investment on the transmission network?
- Q2. Do you agree with our conclusions on the technical options considered?
- Q3. Do you agree with our conclusions on the CBA?

### Overview of SHET's proposal

- 2.1 In September 2022, we consulted<sup>14</sup> on SHET's INC regarding the Argyll project. Chapter 2 of that document laid out SHET's proposal, the options considered, and the CBA approach that SHET took. This chapter will focus on changes to the project proposed by SHET since that submission and our views on those changes.
- 2.2 SHET propose that the Argyll project will upgrade the existing network to 275kV operation from Crossaig in the south to a connection point located to the east of the village of Dalmally on the SPT Dalmally – Windyhill 275kV OHL. The 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.
- 2.3 The network upgrade consists of five key elements:
  - Establishing a new 275/132kV substation at Creag Dhubh to enable connection to SPT's Dalmally-Windyhill 275kV OHL circuits. These are to be connected by c.14km of new 275kV Double Circuit OHL.
  - c.10km of new 275kV Double Circuit OHL between Creag Dhubh and a tee point on the existing Inveraray-Crossaig circuits to enable 275kV operation of this section.

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<sup>14</sup> [Argyll and Kintyre project - Initial Needs Case consultation](#)

- Construction of replacement An Suidhe and Crarae substations to enable them to maintain connection to the new 275kV network – to be delivered for November 2028.
- Establishing a new 275kV substation at Craig Murrail and relocation of the Port Ann Grid Supply Point (GSP) to this site.
- Establishing a new 275/132kV substation in the vicinity of the existing Crossaig Substation.

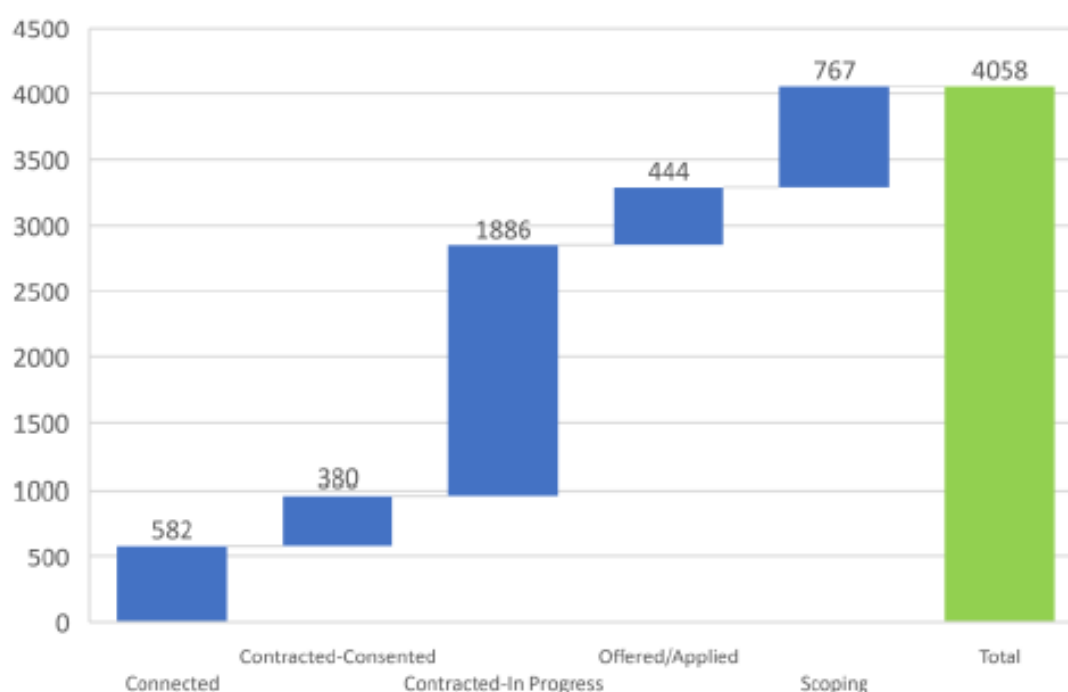
## Why the project has been brought forward

2.4 The two key drivers for the project remain as:

- Transmission capacity needs to be increased to accommodate additional renewable generation seeking connection; and
- Security of supply needs to be maintained at the GSP's in the area.

2.5 Since the INC, SHET has identified an additional c.23% of total generation potential which is an increase from 3309MW to 4058MW. This is broken down as per figure 2.

Figure 2: Generation (MW)



2.6 The main generation movements since the INC are as follows:

- 99MW increase in consented generation;

- 228MW increase in generation within the consent application stage;
- 1,595MW increase in contracted generation; and
- 529MW decrease in offered and applied generation as some of these projects have advanced onto the contracted-in-progress stage (i.e. contracted but not yet consented).

2.7 SHET also updated its generation scenarios<sup>15</sup> as per table 1. The scenarios S1-S4 broadly align to the four scenarios within the ESO's FES<sup>16</sup>, namely Leading the Way (LW) aligns to S4, Consumer Transformation (CT) to S3, System Transformation (ST) to S2, and Steady Progression (SP) to S1.

Table 1: New renewable generation capacity by 2050

	S4	S3	S2	S1
FNC	2884MW	1766MW	1250MW	567MW
INC: (paragraph 2.11 in INC)	1609MW	904MW	664MW	510MW

2.8 The existing network can only accommodate up to an additional 108MW of additional generation capacity. To enable additional generation beyond this level as identified in any of the four scenarios in table 1, reinforcement of the line will be required.

### Options considered

2.9 SHET's five shortlisted options have not changed since the INC submission. However, there have been two developments:

- Public Local Inquiry (PLI); and
- Capital expenditure costs increases.

2.10 PLI: In September 2022, the Argyll and Bute Council's Planning, Protective Services and Licensing Committee objected to SHET's section 37 (s37) planning application for the proposed new 275kV OHL between Creag Dhubh substation

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<sup>15</sup> SHET hired Gutteridge Haskins & Davey Limited (GHD) to conduct an evaluation using a 'probability of generation assessment tool' (PGAT) to determine how much generation would be likely to ultimately come forward in totality as well as within each generation scenario, S1 to S4  
<sup>16</sup> ESO's FES [scenario framework](#) showing how the four scenarios move towards decarbonation given differing levels of societal change

and the connection onto the existing SPT Dalmally – Windyhill 275kV OHL. This objection triggered a PLI. The application has been subsequently referred to the Department for Planning and Environmental Appeals (a division of the Scottish Government) who have appointed a Reporter to hear evidence from all parties and make a recommendation to Scottish Ministers as to whether the application should be granted.

- 2.11 Capital expenditure cost increases: Costs were anticipated to be £351.8m for SHET’s preferred option (option 05) at the INC stage whereas now costs are anticipated to be £600m. This means that there has been an increase of £249m. The two drivers of this increase are SHET undertaking extensive surveys and assessments which have refined the project’s scope, and global market conditions that have caused a materials shortage and constrained procurement periods resulting in above inflation cost increases.
- 2.12 SHET noted that the PLI impacted earliest in-service dates (EISD). These updated EISDs as well as the revised capital expenditure costs are presented in table 2.

Table 2: Five shortlisted options

<b>Option Code<sup>17</sup></b>	<b>Description</b>	<b>EISD</b>	<b>Cost<sup>18</sup></b>
<b>05</b>	DDNC1 Creag Dhubh substation & new 275kV line (N/O) <sup>19</sup>	2027	<b>£599.80m</b>
	DINC New 275kV line Creag Dhubh – Inveraray	2028	
	DCUP2 Uprate Creag Dhubh - Crossaig Line to 275kV (I) <sup>20</sup>	2028	
<b>06</b>	DDNC1 Creag Dhubh substation and new 275kV line (N/O)	2027	<b>£603.26m</b>
	DINC New 275kV line Creag Dhubh – Inveraray	2028	
	DCUP1 Uprate Creag Dhubh - Crossaig Line to 275kV (R) <sup>21</sup>	2028	
<b>07</b>	DDNC1 Creag Dhubh substation and new 275kV line (N/O)	2027	<b>£992.03m</b>
	CKNC Two subsea cables Carradale - Kilmarnock South	2029	
<b>08</b>	DDNC2 Creag Dhubh substation and new 275kV line	2027	<b>£992.03m</b>
	CKNC Two subsea cables Carradale - Kilmarnock South	2029	
<b>09</b>	DDNC1 Creag Dhubh substation and new 275kV line (N/O)	2027	<b>£1115.03m</b>
	DINC New 275kV line Creag Dhubh – Inveraray	2028	
	CKNC Two subsea cables Carradale - Kilmarnock South	2029	

<sup>17</sup> Represents the work required (i.e. components) that make up each option’s solution. A detailed description of what work these individual components are made up of can be found in appendix 2

<sup>18</sup> Capital expenditure (CAPEX) costs

<sup>19</sup> Normally open circuit

<sup>20</sup> Interconnected network

<sup>21</sup> Radial network



## CBA results

- 2.13 At the INC stage, we agreed with the proactive approach that SHET took to capture the transmission constraints in the Argyll region and to feed this into the ESO's GB wide CBA model. The CBA showed that the Least Worst Regret<sup>22</sup> (LWR) result was identical for options 05 and 06; however, option 05 was SHET's preferred solution given its system interconnectivity.
- 2.14 Since the INC, there have been two developments as discussed earlier in this chapter that SHET have indicated affect all options:
- Capital expenditure cost increases; and
  - Increases in generation projections.
- 2.15 The ESO carried out a CBA for the FNC using the updated capital expenditure costs and generation figures to re-evaluate the LWR option. An additional scenario, LW+, was developed as a sensitivity to test even higher levels of generation.
- 2.16 Table 3 shows the CBA results. The LWR option continues to be SHET's preferred option, option 05.

Table 3: CBA Least Worst Regret results<sup>23</sup>

Option	Code	Regrets (£m)					Worst regret	Rank
		SP	ST	CT	LW	LW+		
<b>05</b>	DDNC1, DINC, DCUP2	313.9	403.6	342.1	0.0	0.0	403.6	<b>1</b>
<b>06</b>	DDNC1, DINC, DCUP1	316.4	406.1	344.7	68.6	174.1	406.1	<b>2</b>
<b>07</b>	DDNC1, CKNC	690.0	779.7	718.8	390.0	416.2	779.7	<b>4</b>
<b>08</b>	DDNC2, CKNC	690.0	779.7	718.2	376.6	384.5	779.7	<b>3</b>
<b>09</b>	DDNC1, DINC, CKNC	816.5	906.2	844.8	513.2	601.4	906.2	<b>5</b>

- 2.17 The CBA also contained sensitivity analyses. The summary of these results is highlighted below in table 4.

<sup>22</sup> LWR is a decision-making tool that makes recommendations based on which options/strategy produce the least 'regret' across all analysed scenarios. We are aware of some limitations of the LWR analysis in practice. LWR results are determined by the balance between the least and most onerous case for development which could lead to spurious investment recommendations if scenarios are not 'credible'. To minimise this risk, the ESO's NOA results are reviewed by the NOA committee who use the latest market intelligence to test the plausibility of the results, and sensitivity analysis is undertaken to look at how robust recommendations are to scenario changes

<sup>23</sup> 'Regrets' and 'Worst regret' are colour coded for reading ease: green is favourable, red is not

Table 4: CBA sensitivity analysis summary

<b>Sensitivity</b>	<b>Result</b>
Capital expenditure: Variance of -20% to +30%	LWR operable solution remains as option 05.
Constraint costs: Variance of -20% to +60%	LWR operable solution remains as option 05.
(the larger upwards range was tested due to the trends in energy prices).	

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2.18 SHET, as part of their FNC submission to us, also produced two bespoke reports examining the wider benefits to society, namely the socioeconomic and carbon benefits associated with pursuing option 05. SHET's own analysis outlined that their investment would create an estimated £618m to £851m and £2.16bn to £4.36bn amount of socioeconomic value to the local and UK economies respectively over the lifetime of the asset. The whole life carbon profile analysis outlined £570m of economic benefit to society by way of contributing to the decarbonisation of the UK electricity supply.

## **Our views on the Argyll project**

### **Accommodating additional renewable generation and Security of supply**

2.19 Our position remains as per our INC decision<sup>24</sup>; namely that we agree SHET has demonstrated that additional capacity is likely to be needed to allow new generation to connect to the Argyll and Kintyre network, and that to enable this the network rating will need to be increased.

### **Options considered**

2.20 As per our INC decision, we deem that an appropriate range of options were considered and that the five options taken forward are appropriate.

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<sup>24</sup> [Argyll and Kintyre project: Initial Needs Case decision](#)

- 2.21 SHET's costs have increased by £249m. We acknowledge the reasoning behind these increases; however, with respect to the increase in costs due to material shortages and procurement activities, we will scrutinise these at the PA stage.
- 2.22 We support options 05 and 06 over options 07 to 09 given that they would allow the circuit to be operated at 275kV and given the disparity in costs, as per table 2. We also acknowledge that option 05 is SHET's preferred solution as it has the benefit of system interconnectivity and operational flexibility over option 06.

### **CBA results**

- 2.23 We consider that the CBA supports the need for investment and also supports SHET's preferred reinforcement option, option 05.
- 2.24 Overall, we are comfortable with the methodology used for the CBA.

### **Overall view**

- 2.25 We consider that SHET's preferred option 05 is both reasonable and likely to provide the optimal solution given the project's drivers and background generation projections.
- 2.26 We are aware that a PLI is currently progressing with respect to planning consent for the proposed OHL between Creag Dhubh substation and Dalmally. Therefore, if we decide to approve the FNC our **FNC decision will be conditional on SHET securing all material planning consents.**

### 3. Delivery via a competition model

#### Section summary

This chapter sets out whether the project meets the criteria for competition. It also explains our minded-to decision on whether to apply a late competition model.

#### Questions

Q4. Do you agree with our minded-to proposal to retain the Argyll project within the LOTI arrangements under RIIO-2?

#### Background

3.1 Competition in the design and delivery of energy networks is a central aspect of the RIIO-2 price control. 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. We set out in our Final Determinations<sup>25</sup> for RIIO-2 that during the RIIO-2 period, all projects that meet the criteria for competition and are brought forward under an uncertainty mechanism<sup>26</sup> will be considered for potential delivery through a late competition model.

#### Does the Argyll project meet the criteria for competition?

3.2 The criteria<sup>27</sup> for a project to qualify for late model competition is as follows:

- i. New
- ii. Separable
- iii. High value – projects of £100m or greater expected capital expenditure

3.3 We consider that the Argyll project meets all the criteria above.

#### Delivery model considerations

3.4 Since we consider that the Argyll project meets the criteria for late model competition, we have considered whether it is in the interest of consumers for the

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<sup>25</sup> [RIIO-2 Final Determinations](#), Core Document (REVISED), chapter 9

<sup>26</sup> [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#), pages 9-11

<sup>27</sup> [Guidance on the criteria for competition](#)

project to be delivered through a late model of competition rather than via the prevailing LOTI mechanism under the RIIO-2 arrangements.

### Relevant consideration of models

3.5 The late competition models that are available for consideration are:

- i. Competitively Appointed Transmission Owner (CATO) Model
- ii. Special Purpose Vehicle (SPV) Model
- iii. Competition Proxy Model (CPM)

3.6 Below we set out details of each of these models and our initial views on how suitable it would be to apply the model to the Argyll project.

#### *CATO*

3.7 Under the CATO model, a competitive tender would be run for the financing, construction, and operation of the proposed assets that make up the project, with a transmission licence provided to the winning bidder setting out the outputs, obligations, and incentives associated with delivering the project.

3.8 The CATO model requires legislative changes to allow for new parties to be able to be awarded a transmission licence following a competitive tender. The government has recently introduced a Bill<sup>28</sup> to enable competitive tendering but it is currently uncertain when it will be passed into law. The required delivery date proposed for the project is December 2027 and it is not clear at present whether the legislative changes required to implement the CATO model will be enacted in time to allow it to deliver benefit to consumers without causing significant delay to the project. For that reason we do not think it would be appropriate to apply the CATO model to the project.

#### *SPV*

3.9 Under the SPV model, SHET would run a tender to appoint a SPV to finance, deliver, and operate a new, separable, and high value project on the licensee's behalf through a contract for a specified revenue period. The allowed revenue for delivering the project would be set over the period of its construction and a long-term operational period (currently expected to be 25 years). The SPV model was

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<sup>28</sup> [Energy Security Bill - GOV.UK](#)

originally developed for consideration for projects where the CATO model had been discounted due to a clear expectation that underpinning legislation would not be in place in time to allow the delivery of specific projects.

- 3.10 Given the additional work needed to finalise the SPV model and that SHET's tender process has already commenced, we do not consider that the SPV model can be applied to this project without leading to significant delays. For this reason, we consider that the SPV model is not an appropriate model for this project.

*CPM*

- 3.11 The CPM involves setting a largely project specific set of regulatory arrangements to cover the construction period and a 25-year operational period for an asset (in contrast with setting arrangements for a portfolio of assets under a price control settlement). It is intended to replicate the efficient project finance structure that tends to be used in competitive tender bids for the delivery and operation of infrastructure projects.
- 3.12 Importantly, the licensee would retain delivery of the project under CPM. This means that there is not the requirement to allow for the running of a full tender for delivery of the project in the same way as the CATO or SPV models, and the CPM assessment stages follow the same process as the LOTI mechanism.
- 3.13 In the RIIO-2 Final Determinations<sup>29</sup>, we explained that due to recent market conditions and our allowed financing arrangements for RIIO-2, we may not have sufficient confidence that the application of the CPM to projects that need to start construction at the start of the RIIO-2 period would deliver benefits to consumers. This position was informed by our decision on the Hinkley-Seabank project in May 2020<sup>30</sup>.
- 3.14 Since our decision on Hinkley-Seabank, and our RIIO-2 Final Determinations in 2020, we have seen some variability in the cost of debt benchmarks used to set the financing arrangements under CPM. There is some scope for potential market movements between now and the point at which the financing arrangements

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<sup>29</sup> [RIIO-2 Final Determinations](#), Core Document (REVISED), Chapter 9, section 9.8

<sup>30</sup> [Hinkley - Seabank: Updated decision on delivery model](#)

would be finalised for CPM, in parallel to the final setting of the cost allowances for the project.

- 3.15 At this stage, we have not seen movements that give us confidence that CPM is likely to deliver a benefit to consumers relative to the financing arrangements under the counterfactual LOTI arrangements under RIIO.

### **Our view**

- 3.16 We do not consider that implementing either the CATO or SPV models for the Argyll project is possible without causing significant delay to project delivery, and we do not have sufficient confidence in the benefits to consumers that could be delivered by applying the CPM. Given this, we propose to retain the Argyll project within the LOTI mechanism as part of the RIIO-2 price control.

## 4. Large project delivery

### Section summary

This chapter sets out the large project delivery options and our minded-to decision.

### Questions

Q5. Do you agree with our proposed approach to LPD for the Argyll project?

### Background

- 4.1 In the RIIO-2 Final Determinations<sup>31</sup> we set out our approach to late delivery of large projects (i.e. >£100m). The aim of this approach is to ensure that a licensee does not benefit financially from a delay to project delivery.
- 4.2 We also aim to ensure that consumers are protected from any delay in delivery. To this end, we consider setting a Project Delivery Charge (PDC) for each day a project is delivered late.

### Our view

- 4.3 We will consider the appropriate project delivery mechanism and PDC level for the Argyll project at the PA stage. In setting the PDC level we will look to understand the impact of any delay in terms of costs to consumers.

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<sup>31</sup> [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 under the LOTI mechanism.

- 5.1 Our consultation on the positions set out within this document will close on 15 September 2023. We currently anticipate publishing our FNC decision in Autumn 2023.
- 5.2 If our FNC decision is to approve the project and SHET is successful in securing all material planning consents, we will then proceed to the PA stage of the LOTI mechanism<sup>32</sup>.

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<sup>32</sup> [Large Onshore Transmission Investments \(LOTI\) Re-opener Guidance](#), chapter 6

## **Appendices**

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## Appendix 1 - Privacy notice on consultations

### Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally). It does not refer to the content of your response to the consultation.

### 1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller ("Ofgem" for ease of reference). The Data Protection Officer can be contacted at [dpo@ofgem.gov.uk](mailto:dpo@ofgem.gov.uk)

### 2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

### 3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest, i.e. a consultation.

### 4. With whom we will be sharing your personal data

N/A.

### 5. For how long we will keep your personal data or the criteria used to determine the retention period.

Your personal data will be held for six months after the project is closed.

### 6. Your rights

The data we are collecting is your personal data and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data,
- access your personal data,
- have your personal data corrected if it is inaccurate or incomplete,
- ask us to delete your personal data when we no longer need it,
- ask us to restrict how we process your personal data,
- get your personal data from us and re-use it across other services,
- object to certain ways we use your personal data,
- be safeguarded against risks where decisions based on your personal data are taken entirely automatically,
- tell us if we can share your personal information with 3rd parties,
- tell us your preferred frequency, content and format of our communications with you,
- lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your personal data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/> or telephone 0303 123 1113.

**7. Your personal data will not be sent overseas.**

**8. Your personal data will not be used for any automated decision making.**

**9. Your personal data will be stored in a secure government IT system.**

**10. More information**

For more information on how Ofgem processes your data, click on "[Ofgem privacy promise](#)".

## Appendix 2 - Detailed list of option components

Code	Description	Detailed description
<b>CKNC</b>	Twin Subsea Cable (Carradale – Kilmarnock South)	<ul style="list-style-type: none"> <li>▪ Two 220kV 240 Mega Volt Amperes (MVA) subsea cables from Carradale substation to Kilmarnock South substation (SPT).</li> <li>▪ New 132kV Carradale substation, tying in the existing Carradale GSP and the 132kV OHL circuits to Crossaig.</li> <li>▪ Ownership boundary will be the landing point on SPT network. Cable into Kilmarnock South substation and connection to 275kV busbar will be SPT works.</li> </ul>
<b>DCUP1</b>	275kV Reinforcement	<ul style="list-style-type: none"> <li>▪ Operate the Creag Dhubh - Crossaig double circuit at 275kV.</li> <li>▪ Construct new 275kV substations at Crarae and An Suidhe to maintain transmission connected generator connections.</li> <li>▪ Construct a new 275kV substation at Craig Murrail and install new 275/33kV GTs to maintain connection to Port Ann GSP.</li> <li>▪ Construct a new 132kV Crossaig double busbar and connect OHL from Craig Murrail and OHL from Carradale onto new busbar. Install a normally open point between the two Crossaig busbars, and radialise the subsea cables from Hunterston.</li> </ul>
<b>DCUP2</b>	275kV Reinforcement (Interconnected Network)	<ul style="list-style-type: none"> <li>▪ Operate the Creag Dhubh - Crossaig double circuit at 275kV.</li> <li>▪ Construct new 275kV substations at Crarae and An Suidhe to maintain transmission connected generator connections.</li> <li>▪ Construct a new 275kV substation at Craig Murrail and install new 275/33kV GTs to maintain connection to Port Ann GSP.</li> <li>▪ Construct a new 132kV Crossaig double busbar and connect OHL from Craig Murrail onto new busbar. Install two cable circuits between the two Crossaig busbars to maintain connectivity with the existing Crossaig double busbar.</li> </ul>
<b>DDNC1</b>	Creag Dhubh Substation	<ul style="list-style-type: none"> <li>▪ New 275/132kV substation at Creag Dhubh in North Argyll. Turn in the existing Inveraray - Taynuilt 132kV OHL.</li> <li>▪ Open the circuit between Creag Dhubh and Inveraray.</li> <li>▪ A new 275kV double circuit OHL from Creag Dhubh substation to Dalmally - Windyhill circuit (SPT), looped into one side.</li> <li>▪ Ownership boundary will be prior to circuit loop in.</li> <li>▪ Tower works and reprofile of Dalmally - Windyhill 275kV OHL will be SPT works.</li> </ul>
<b>DDNC2</b>	Creag Dhubh Substation	<ul style="list-style-type: none"> <li>▪ New 275/132kV substation at Creag Dhubh in North Argyll. Turn in the existing Inveraray - Taynuilt 132kV OHL.</li> </ul>

		<ul style="list-style-type: none"><li>▪ 132kV circuit between Creag Dhubh and Inveraray operated closed.</li><li>▪ A new 275kV double circuit OHL from Creag Dhubh substation to Dalmally - Windyhill circuit (SPT), looped into one side.</li><li>▪ Ownership boundary will be prior to circuit loop in.</li><li>▪ Tower works and reprofile of Dalmally - Windyhill 275kV OHL will be SPT works.</li></ul>
<b>DINC</b>	OHL to Inveraray	<ul style="list-style-type: none"><li>▪ A new 275kV double circuit OHL from Creag Dhubh to Inveraray - Crossaig OHL (bypassing Inveraray Substation). Circuit will be operated at 132kV initially. Existing OHL between Creag Dhubh substation and Inveraray switching station to be removed. Inveraray switching station now radialised from Sloy.</li></ul>

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