



T3 Load Reopener: Coire Mashie 400kV Substation

Eligibility Letter

Document Classification | **PUBLIC**



**Scottish & Southern
Electricity Networks**

TRANSMISSION

T3LR-EL-005	Coire Mashie 400kV Substation RIIO-T3 LR Eligibility Letter		Applies to
			Transmission
Revision: 1.0	Classification: Public	Issue Date: 10/2026	Project Number: [REDACTED]

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Executive Summary

This Eligibility Letter sets out our request for Ofgem approval of the needs case and preferred option for Coire Mashie 400kV Substation [REDACTED] and direct a Price Control Deliverable (PCD) covering Pre-Construction Funding (PCF). In support of the project, SSEN Transmission (SSEN-T) is requesting an additional PCF allowance of [REDACTED] under SpC 3.15. [REDACTED]

Without approval of the need and preferred option, and subsequent release of Pre-Construction Funding, we are unable to progress this project or deliver the connection works required to connect Earba Pumped Storage Hydro (PSH) to the transmission network.

[REDACTED] currently contracted for its 1,800 MW Pumped Storage Scheme located approximately 17.5km west of Dalwhinnie. [REDACTED]

the customer will connect [REDACTED] (600 MW Transmission Entry Capacity (TEC)), with [REDACTED] (1,800 MW TEC) and has been assessed by the National Energy System Operator (NESO) as needed for CP2030.

Following optioneering and technical assessment, our preferred solution satisfies the NETS SQSS and all relevant technical requirements, while ensuring the contracted generation can be connected and delivered [REDACTED]. The proposed solution comprises Shared enabling works.

The proposed solution comprises establishing a new 400kV substation on the Beaulay-Denny double circuit OHL (between Melgarve and Kinardochy Substations) in the geographical area between Laggan and Dalwhinnie. The substation will have provisions for bays to accommodate the planned Earba PSH scheme, connection to the existing Beaulay-Denny double circuit, connection of reactive compensation solutions and connection to future circuits delivered as part of [REDACTED]. The cost of this project reflects an investment in future proofing, [REDACTED]

[REDACTED] Although this increases the initial capital cost it reduces the risk of more costly and disruptive site expansion in the future.

The project is a Non-Pre-Approval of Solution by Engineering (non-PASE) solution, as the solution is a new indoor double busbar GIS 400kV substation. Robust and detailed justification has been provided within this letter as to why the preferred option has been selected.

The Need is clear and the Option is justified therefore the project should be placed in Track 2. We ask that Ofgem:

- Confirm eligibility for the Load Reopener (LR)
- Confirm Track 2 pathway for regulatory funding, progressing straight to Project Assessment
- Amend SpC 3.15 Pre-Construction Funding in line with the Final Determination decision of 8.2% PCF

[REDACTED]

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- Confirm that an Independent Technical Advisor (ITA) and Output Delivery Incentive (ODI) will not apply.

This submission is made in accordance with Special Licence Condition (SpC) 3.15 ("Pre-Construction Funding Re-opener and Price Control Deliverable") of SSEN-T's Licence. The content within this submission is aligned to the requirements in Ofgem's "Re-opener Guidance and Application Requirements Document Version 5" (dated 1st April 2026).

We are applying to Ofgem for a direction to amend the outputs and associated allowances in Appendix 2 of SpC 3.15 of our Licence. This is permissible in respect of new Load Re-opener Outputs. SSEN-T may apply to the Authority for a direction amending the outputs, delivery dates, or associated allowances by submitting an Eligibility Letter for the relevant Load Re-opener as set out in Part D of Special Condition 3.18 Load Re-opener and Price Control Deliverable (LRT).

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Reference Table

Project Title:	Coire Mashie 400kV Substation	Delivery Year	[REDACTED]
BPDT/Scheme Reference Number	[REDACTED]	Applicable Reporting Tables	6.1 Scheme C&V Load Actuals 9.4 CAI 11.10 Contractor Indirects
RRP References	[REDACTED]	Connections	[REDACTED] (1,800 MW)
Cost (23/24 prices):	[REDACTED]	Total MW of Clean Power Generation	1800 MW (TEC) [REDACTED]
Load Board Reference	N/A		
Investment Driver	Customer Connection		
PASE alignment	The project is a non-PASE solution, as the solution is a new indoor double busbar GIS 400kV substation.		
Outputs	Energisation of transmission infrastructure to create new 400kV Coire Mashie Substation. PCD to be set covering pre-construction activity up to 31 March 2031. Full Output to be set at Project Assessment.		
Extension Cost (applicable only to substations)	The new substation within this submission has already been designed to be future proofed to accommodate all known and unknown customers (space provision provided)		
Historic Funding Interactions	N/A		
Interactive Projects	[REDACTED] – Earba Pumped Storage Hydro [REDACTED] (Upgrade of Beaully-Denny second circuit from 275kV to 400kV) [REDACTED] [REDACTED] [REDACTED] is associated with the main connection driving this project. [REDACTED] [REDACTED] is planned for completion prior to the completion of Coire Mashie and is a prerequisite. [REDACTED] is a future planned reinforcement which will tie into the Coire Mashie substation and are currently Shared Use works for [REDACTED]		

Table 1: Reference table

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Project Summary Table

Name of Scheme	Coire Mashie 400kV Substation		
Investment Driver	Coire Mashie is required to connect Earba PSH to the transmission network. Earba PSH [REDACTED]		
Solution(s)	Shared Use [REDACTED] Establish a new 400kV substation on the Beaully-Denny double circuit OHL (between Melgarve and Kinardochy) in the geographical area between Laggan and Dalwhinnie. The substation will have provisions for bays to accommodate the planned Earba PSH scheme, connection to the existing Beaully-Denny double circuit, [REDACTED]		
PASE Compliance	No. This project is classified as Non-Pre-Approval of Solution by Engineering (PASE), as the solution is a new double busbar indoor GIS 400kV substation sited [REDACTED] above sea level.		
PASE Evidence Variant Option	[REDACTED]		
Spend Apportionment	ET2	ET3	ET4
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Table 2: Project Summary table

[REDACTED]

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1. Introduction

This Eligibility Letter sets out our request for Ofgem approval of the needs case and preferred option for the Coire Mashie 400kV Substation [REDACTED] and setting of a Price Control Deliverable (PCD) covering Pre-Construction Funding (PCF).

As part of its statutory and Transmission Licence obligations, SSEN-T has several duties including:

- The development and maintenance of an efficient, coordinated and economical system of electricity transmission,
- To facilitate competition in the supply and generation of electricity, and
- Plan the network in accordance with the NETS SQSS to ensure that the security of the network is maintained as the demand and/or generation connections change over time.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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2. Regulatory Treatment

This submission is made in accordance with SpC 3.15 (“Pre-Construction Funding Re-opener and Price Control Deliverable”) and SpC 3.18 (“Load Reopener and Price Control Deliverable”) of SSEN-T’s Licence. Part F of SpC 3.15 sets out the information requirements for amending condition to reflect PCF, and part D of SpC 3.18 covers the requirements for an Eligibility letter submission. The content within this submission is aligned to the requirements in Ofgem’s “Re-opener Guidance and Application Requirements Document Version 5” (dated 1st April 2026).

2.1. Pre-Construction Funding

We are applying to Ofgem for a direction to amend the outputs and associated allowances in Appendix 2 of SpC 3.15 of our Licence. This is permissible in line with SpC 3.15.21 where a request can be made when submitting an eligibility letter.

To support the Coire Mashie project, SSEN-T is requesting [REDACTED] of pre-construction allowances in order to fully fund the development of activities necessary to reach a constructable solution and secure all material planning consents and connection delivery date [REDACTED]

To date Pre-Construction Activities have included route and site selection assessments, public consultation events, LiDAR survey, and environmental surveys.

Expected Pre-Construction Activities include ground investigation and testing, Environmental Impact Assessment (EIA) surveys and reporting, substation design refinement, pre-application consultation (PAC) events, preparing and submitting Section 37 and Town and Country Planning applications.

In line with SpC 3.15.24 e), the activities are required to develop the project up to the point of construction, including delivering critical path items related to ground investigations, preparation of consenting application and submission, and discharge of consenting. The pre-construction work is essential to mitigate project and delivery risks including delay and cost overruns during construction. It is essential to develop the project to achieve planning approval.

In line with SpC 3.15.24 c), a full breakdown of our PCF is included within the cost estimate provided in Appendix F, which provides a detailed summary of the PCF spend to date and forecast broken down into Pre-Construction Works Categories. Table 3 proposes the amendments to be made to Appendix 2 of SpC 3.15 Pre-Construction Funding Price Control Deliverable Allowance. A delivery date of 31st March 2031 should be set for pre-construction activities.

In line with SpC 3.15.24 d), A PCD covering pre-construction activities should be set following approval of this Eligibility Letter. This should be done through modification to SpC 3.15 Pre-Construction Funding, our proposed amendments are listed in the table below.

EJP OSR	Output	PCD Date	2026/27 (£m 23/24 prices)	2027/28 (£m 23/24 prices)	2028/29 (£m 23/24 prices)	2029/30 (£m 23/24 prices)	2030/31 (£m 23/24 prices)	Total allowance (£m 23/24 prices)
[REDACTED]	Coire Mashie 400kV Substation	31 March 2031	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Table 3: Proposed PCD for Pre-construction activities

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We expect a PCD covering the energisation of transmission infrastructure to be added to SpC 3.18 Load Reopener as part of Project Assessments. The current delivery year [REDACTED]

Our pre-construction activities will continue for these projects to the point which any planning conditions can be discharged and derisk the design and construction programme such that delivery timelines can be met. We will use pre-construction funding to mitigate the following risks:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

2.2. Eligibility

The Coire Mashie 400kV Substation Project meets the LR criteria:

[REDACTED]

2.3. Preferred Project Track

The preferred project track for this scheme is Track 2.

[REDACTED] Therefore, there is no need for a detailed needs case assessment. Our view is that this project should progress through Track 2 in order to meet connection offer timelines.

We see limited benefit of further Ofgem detailed review through a Needs Case, given that the need is clear and solution is economic and efficient based on the connecting customer's requirements and

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existing transmission infrastructure in the area. There is a risk that continued uncertainty about regulatory status would delay the connection of the customer.

A Cost Benefit Analysis (CBA) has not been provided, a cost benefit comparison table (table 8) has been provided to present how the preferred option is justified in comparison to the other options given robust optioneering has been undertaken and the preferred option is clear. A CBA for this scheme would not provide any additional information and a CBA is not possible as it would not make sense to assess against options which are not deliverable.

[REDACTED]

2.4. Major Projects Output Delivery Incentive

The project does not meet the criteria for the setting of a Major Projects ODI. The project is connection driven and should not be classed as a “major project”. We support a holistic, evidence-based approach to determining the projects to which the Major Projects ODI-F should apply, taking account of materiality, strategic designation and the nature of the network benefit being delivered. In our view, the mechanism should principally apply to large strategic investments, such as major boundary-transfer projects or projects specifically designated as strategic by Ofgem or NESO through CSNP outputs. The project contributes to the achievement of CP2030 but given it is specifically connecting one generator, we do not believe it would meet the criteria for the application of a Major Projects ODI.

The project's total estimated cost is [REDACTED]. The cost reflects the requirement for an indoor GIS substation solution, [REDACTED] is necessary given the site-specific constraints that render an outdoor AIS solution unsuitable.

In addition, the project requires a [REDACTED] substation to accommodate current connection requirements. The scheme also incorporates [REDACTED], together with the associated substation platform and housing, as anticipatory investment to support future network development. This future-proofing approach enables additional connections to be accommodated efficiently and avoids the need for more disruptive and potentially higher cost expansion works in the future. Collectively, these factors contribute to the project's total cost exceeding Ofgem's [REDACTED] materiality threshold.

We note in the RIIO-3 Final Determination ET annex section 3.22 states that the policy intent for the major projects ODI is that it “focuses on large boundary transfer projects and the Connections ODI will incentivise more localised upgrades”. It goes on to state that Ofgem expects that the Major Projects ODI will “relieve constraint costs”. Given that the project is a localised connection project and has no constraint costs and does not facilitate large boundary transfer, we do not believe that the project meets the criteria for a Major Projects ODI.

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As this project is not part of the CSNP (Centralised Strategic Network Plan) the NESO will not be developing an Optimal Delivery Date (ODD) as there are no constraint costs associated with the development of these schemes. Furthermore, we will be incentivised to deliver the connection in line with Ofgem policy associated with the Connections ODI. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

2.5. Independent Technical Advisor (ITA)

It is our view that the appointment of an ITA would not provide any benefit to the consumer.

[REDACTED] We see limited consumer benefit of introducing an ITA to small value works. All aspects of the project are in line with standard engineering and technical practises on the transmission network. [REDACTED]

There are no constraint benefits, and therefore not classed as strategically important. We acknowledge that there is strategic relevance when assessed against the wider network upgrades [REDACTED]

[REDACTED]

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3. Needs Case

3.1. Justification of Need

The need for this project is identified as the connection of Earba Pumped Storage Hydro (PSH), [REDACTED] which is located between the Melgarve and Kinardochy substations. Transmission works are required to connect Earba PSH's point of connection to the SSEN-T network.

[REDACTED]

Additionally, Earba PSH received a 'Minded-to' decision from Ofgem as part of their Long Duration Electricity Storage (LDES) cap and floor regime 4. Projects within this portfolio are described by Ofgem as likely to deliver system and consumer benefits, including improved security of supply, reduced emissions and lower system costs.

[REDACTED]

In line with our license obligations, we must deliver this connection in line with the Connections Network Design Methodology. [REDACTED]

[REDACTED]

3.2. Project Benefits

The new substation enables the connection of Earba PSH which supports the Government's clean power objective by connecting 1,800 MW of clean generation to the transmission network, whilst improving the security of supply and lowering system costs (from Ofgem's Long Duration Electricity Storage scheme). The proposed Shared Use solution enables delivery of the connection on time, reduces risk and is deliverable. And, crucially, the solution contributes to the decarbonisation of the grid.

Additionally, the Coire Mashie substation will allow opportunities for future connections through the provision of space [REDACTED] and future 132kV connections. While these are space provisions currently, appetite for future connections in the area is evident through previous applications, such as [REDACTED]. Coire Mashie substation will also contain appropriate levels of reactive compensation, [REDACTED] where the presence of pumped storage, hydro and onshore wind is expected to increase significantly.

[REDACTED]

[REDACTED]

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3.3. Economic Benefits

This project will stimulate economic activity in the Highland Local Authority area, where the project is located, as well as throughout the rest of Scotland and the UK through its supply chain interactions. Focusing first on the Highland local authority area which covers nearly 1/3 of Scotland's land mass and is rich in the natural resources crucial to renewable power generation, making it well placed to benefit from the Just Transition.

As part of our Pathway to 2030 programme SSEN-T is making significant investments in Highland to reinforce the grid and connect new renewable generation. Like most of the north of Scotland, the Highland area is suffering from a decline in its working age population due to a lack of attractive opportunities for young, skilled workers. It also faces a shortage of affordable housing and limited connectivity both within and out with the area. SSEN-T is helping to address these issues through a doubling of our Highland based workforce and our industry leading Housing Strategy which will deliver up to 500 homes in Highland.

About this analysis

This analysis uses input output modelling to calculate GVA and construction jobs with local content percentages applied based on desk-based research of historic data and published statistics. This analysis shows the economic impact of our investment and the average number of direct and indirect jobs that will be supported throughout the development and construction of the project.

Coire Mashie 400kV Substation economic impact

Category	Local	Scotland	UK
GVA (NPV)			
Direct GVA	£14m	£75m	£99m
Indirect GVA	£6m	£28m	£85m
Induced GVA	£4m	£22m	£84m
Total GVA	£24m	£125m	£268m

Table 4: GVA by region and total (£m)

This project will contribute over £268m of Gross Value Added over the development and construction phases of the project.

Jobs Supported

Average Jobs	Local	Scotland	UK
Direct Jobs	25	133	164
Indirect Jobs	11	48	131
Induced Jobs	5	26	127
Total average Jobs	41	207	422

Table 5: Average jobs per region (number)

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There will be an average of 41 direct, indirect and induced jobs supported by this project in the Highland area; 25 of these will be direct jobs related to the project. At the UK level, over 400 jobs will be supported by this project, with 164 jobs directly supported.

Highland Jobs Supported

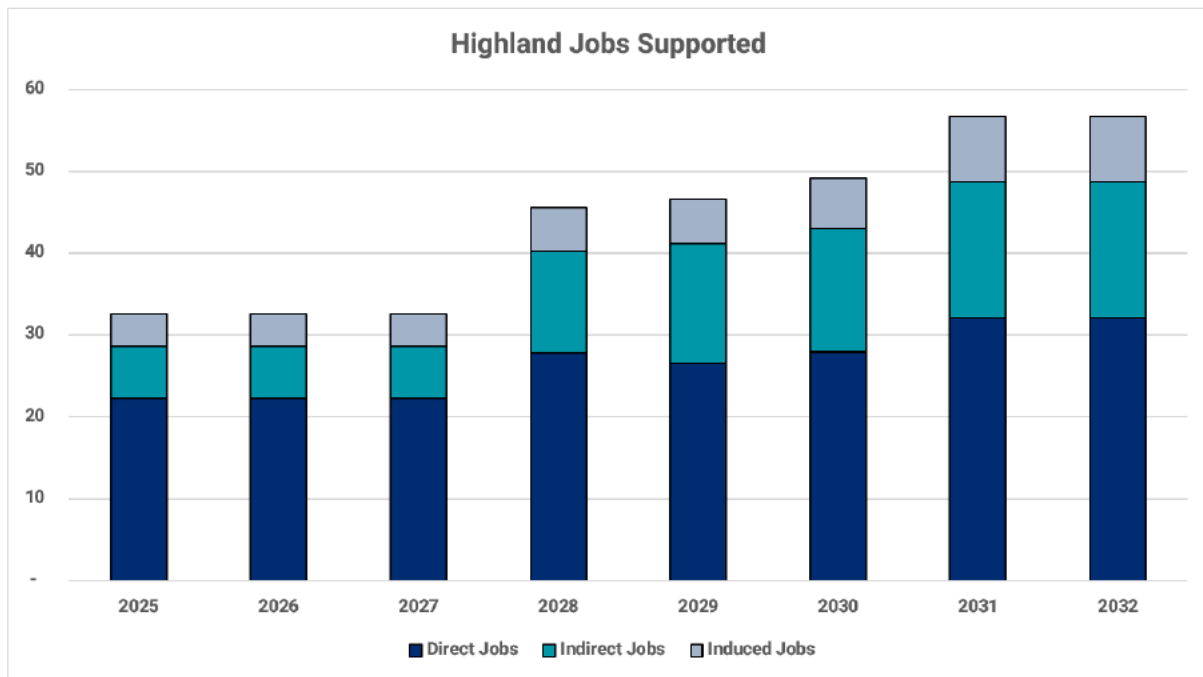


Figure 1: Highland Jobs Supported

The primary employment sector in the Highlands will be the construction sector for enabling works as well as some site construction activity. Construction salaries in the Highlands are [REDACTED] meaning the employment we support will be among the best paid in the Highland economy leading to higher productivity in the region.

In conclusion, our socio-economic analysis shows that there will be significant economic benefits to the region, but also wider to Scotland and the UK. This investment will support jobs in the region and contribute to the wider economy.

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4. Optioneering

The requirement for a new 400 kV substation at Coire Mashie arises from the assessment of connection options undertaken for the Earba PSH project. That assessment concluded that a new point of connection on the Beaully-Denny corridor is required to provide an efficient and deliverable connection for Earba PSH. Further detail on the connection-level optioneering is provided in the Optioneering section of the Earba PSH Eligibility Letter [REDACTED]. This section therefore focuses on the location and technical configuration of the new Coire Mashie substation.

4.1. Environmental Considerations and Stakeholder Engagement

Environmental Considerations and Stakeholder Engagement

All environmental considerations and stakeholder engagements will be assessed and undertaken prior to submitting the planning applications to the Highland Council. A Town and Country Planning application will be submitted for the proposed Coire Mashie Substation and associated access tracks. A Section 37 Application will be submitted for the Beaully Denny overhead line diversion into the proposed Coire Mashie Substation.

A consultation event, focussing on substation site selection, was held in May 2025 and the initial feedback period was extended to allow sufficient time for all interested parties to respond. A further community meeting was held in July 2025 to ensure community feedback was received. A Report on Consultation (RoC) was issued in October 2025, which documents the consultation process and summarises the feedback received from stakeholders. A Pre-application Consultation (PAC) event will be held in October 2026, with further consultation events taking place in [REDACTED] before the planning applications are submitted.

The feedback we have received so far includes:

- **Environmental** – Potential landscape and visual impacts due to the substation being located within Cairngorms National Park and potentially being visible from Laggan Wolfrax. Wildlife was raised as a key issue with references to wildcats, beavers, deer, and protected bird species.
- **Construction** – Road and access, noise and disturbance, dust and pollution, and technical design were all key themes. Community concerns in relation to pressure and disruption placed on housing, medical services with increased road traffic and associated road safety concerns [REDACTED]
- **Community** – Proximity of dwellings, health, local business, community benefit options, particularly in relation to the potential upgrade to the A86 and that Laggan village is not connected to the Laggan Wolfrax, so the building of a new track could serve the community, communication, and temporary workforce.

We are committed to addressing stakeholder concerns as we develop and deliver the scheme and have amended our plans to reflect this feedback.

An Environmental Impact Assessment (EIA) will be included in our planning submissions. The key environmental factors considered are:

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

We are committed to achieving biodiversity net gain on the project in line with our policy that all projects are to achieve a 10% Biodiversity Net Gain (BNG).

4.2. List of Considered Options

To identify potential sites that could support the development of a substation site, an initial Area of Search was used. The initial Area of Search was established from a central point to the north of Loch Laggan, near to the Beauldy-Denny overhead line, and then expanded out to a 10km radius, to allow for a thorough consideration of potentially suitable locations. Although the Area of Search was extensive, numerous constraints including environmentally designated, sensitive habitats, waterbodies and terrain resulted in the only feasible site options being clustered [REDACTED]. Figure 2 shows the Area of Search considered.

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[REDACTED]

[REDACTED]

[REDACTED] 6 [REDACTED]

⁵ In response to community and stakeholder feedback (May to September 2025)

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Option Reference	Option Title	Option Detail	Rationale
1	Substation Option 1	[REDACTED]	[REDACTED]
2	Substation Option 2	[REDACTED]	[REDACTED]

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3	Substation Option 3	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
4	Substation Option 4	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
5	Substation Option 5	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
6	Substation Option 6	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
7	Substation Option 7	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

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		[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]

Table 6: Summary of options considered for Coire Mashie substation location

Substation Option 1 was progressed as the preferred option as it offers the most balanced solution from both environmental and technical criteria.

4.2.1. Substation Type Optioneering

Different options regarding the substation type for Coire Mashie were evaluated to determine the most efficient investment options for the network. A list of options considered and specific information to inform options appraisal are included in Table 7 below.

Option Reference	Option Title	Decision	Cost (23/24 Prices)	Rationale
1	Air Insulated Switchgear (AIS) Substation	[REDACTED]	[REDACTED]	[REDACTED]
2	Non-SF6 Gas Insulated Switchgear (GIS) Substation	[REDACTED]	[REDACTED]	[REDACTED]

Table 7: Summary of options considered for Coire Mashie substation type

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] This drove a requirement to house the substation equipment indoors to protect this from the prevailing climatic conditions

[REDACTED]

Furthermore, SEPA has highlighted Environmental constraints and specifically, the need to avoid impacts to watercourses in the area of the preferred site that can be achieved through a smaller substation platform

[REDACTED]

It was therefore determined that, on balance, that a GIS solution was required in this specific instance to address the climatic conditions and statutory stakeholder feedback

[REDACTED]

4.3. Optioneering Justification

4.3.1. Site Selection

Environmental

From an environmental perspective, Site Options 3, 4 and 5 are highly constrained against a number of environmental topic areas. The development of a substation at these locations would have the potential to be a prominent feature within the Cairngorm's National Park (CNP) with limited opportunities for screening, as well as having the potential to impact Annex 1 habitats and qualifying features of nature conservation sites of international importance.

Site options 6 and 7 also present considerable constraints across a number of environmental topic areas. Whilst site option 6 offers some potential for mitigation and carries fewer constraints than site option 7 overall, the option intersects areas of ancient and native woodland, would affect Annex 1 habitats including blanket bog and wet heath, and would likely be visible from a number of recreational routes.

The proximity of site option 7 to the River Spey SAC / SSSI increases the potential for this site to both directly and indirectly adversely affect the qualifying / notified features of these designated sites. Furthermore, site option 7 is constrained by existing infrastructure and further substation development of the scale proposed would likely result such infrastructure becoming a dominating feature in the local landscape, with visual effects difficult to mitigate.

The additional electrical infrastructure connection requirements (deviation of the existing Beaully-Denny 400kV OHL in relation to site option 6 and up to 21km of UGC through a sensitive environment for site option 7) would also lead to potential for increased constraints across a number of environmental topic areas.

In contrast, Site Option 1 and Site Option 2 are less constrained across environmental topic areas. Both sites offer opportunities to minimise landscape and visual effects in the local area through the use of screening. Due to its more central location within the commercial forestry plantation, Site Option 2 would likely require more extensive tree felling to accommodate the proposed works. However, Site Option 1 would likely require more substantial earth works in order to establish a level site, which could increase on local landscape character. Site Option 2 also intersects with, and is sited close to, the non-

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[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

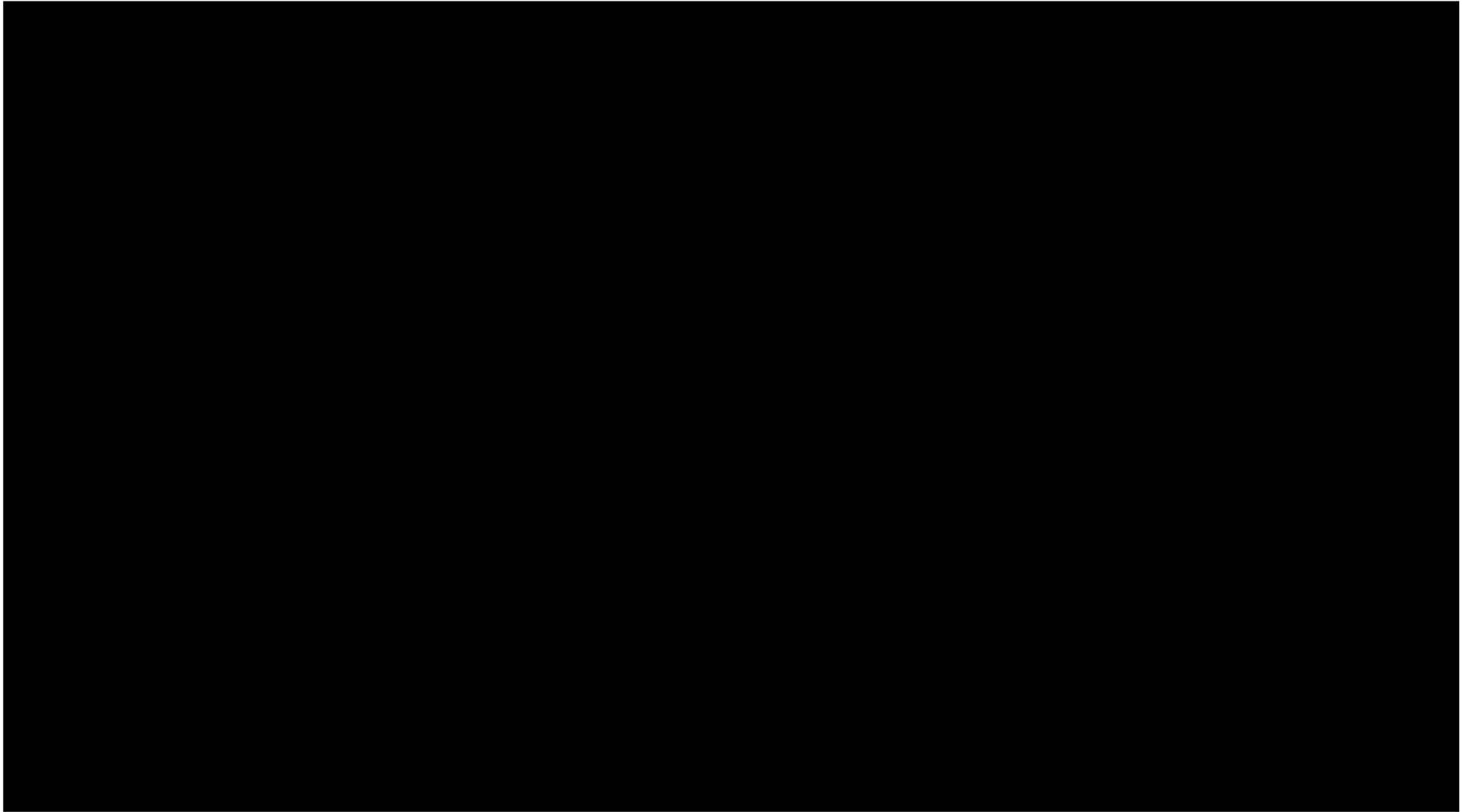
A high-level proportionate option appraisal has been carried out. This is based on the maturity of the project and information available. It outlines analysis conducted and highlights the key drivers in the optioneering decision making.

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[REDACTED]

[REDACTED]

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An indoor GIS solution emerges as the technically robust and lower risk solution for the Coire Mashie 400kV Substation.

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Indoor GIS has been selected as the preferred technology for the Coire Mashie 400kV substation because it provides the most compliant, deliverable and lower-risk solution when assessed against the site-specific constraints [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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			Transmission
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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Overall, taking account of compliance, deliverability, cost efficiency, consenting risk, environmental impact and operational resilience, indoor [REDACTED] GIS represents the most justified and efficient solution for Coire Mashie and is therefore the preferred option for the Load Re-opener submission.

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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6. Early Cost Views and Estimates

[REDACTED] The costs have been prepared on the criteria and accuracy correlated to the stage of the project in our LCP process.

This Eligibility Letter is seeking approval for need and preferred solution only, costs provided are for illustrative purposes only. [REDACTED]

[REDACTED] Final costs will be submitted at Project Assessment. We would expect these costs to mature with the design and as we engage with the supply chain and complete our PCF activities. We have provided a breakdown of the early cost estimate for the project in the cost sheet in the separately attached Appendix F and a breakdown of the main cost drivers in Table 9.



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	Output	Gate Status	Total Cost (23/24)
Shared Use	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
	[REDACTED]		
[REDACTED]			

[REDACTED]

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7.3. Planning Requirements

Formal planning consent is required to enable the project, as summarised in Table 13 below. Consent is at early planning stages, with initial public and stakeholder consultations complete to inform site selection and routeing activities.

In February 2026, the Court of Session's Raeshaw Farms Ltd vs Scottish Ministers decision quashed planning permission for Wull Muir Wind Farm because the decision-maker had not properly considered whether the wind farm and its grid connection should be treated as a single project for Environmental Impact Assessment (EIA) purposes. The judgment reinforced the need to consider the relationship between connected infrastructure and its environmental effects when defining the scope of an EIA.

Following the Raeshaw Farm decision, SSEN-T undertook a review of the consenting approach for the project, including consideration [REDACTED] and engagement with the Energy

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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8. Conclusion & Next Steps

This eligibility letter sets out the need, optioneering and preferred solution for Coire Mashie 400kV Substation.

The need is justified by the Pumped Storage Hydro Scheme [REDACTED]

We have undertaken a detailed optioneering assessment and our preferred solution is the most economic and efficient option and presents significant value for money to the end consumer. Our preferred solution satisfies the NETS SQSS and all relevant technical requirements while remaining deliverable by the connection date [REDACTED]

Our pre-construction activities will develop these projects to the point which they can be consented and derisk the design and construction programme such that delivery timelines can be met.

The need is clear and the option is justified therefore the project should be placed in Track 2.

We ask that Ofgem:

- Confirm eligibility for the LR
- Confirm Track 2 pathway for regulatory funding, progressing straight to Project Assessment
- Amend SpC 3.15 Pre-Construction Funding in line with the Final Determination decision of 8.2% PCF of [REDACTED]
- Confirm that an ITA and ODI will not apply

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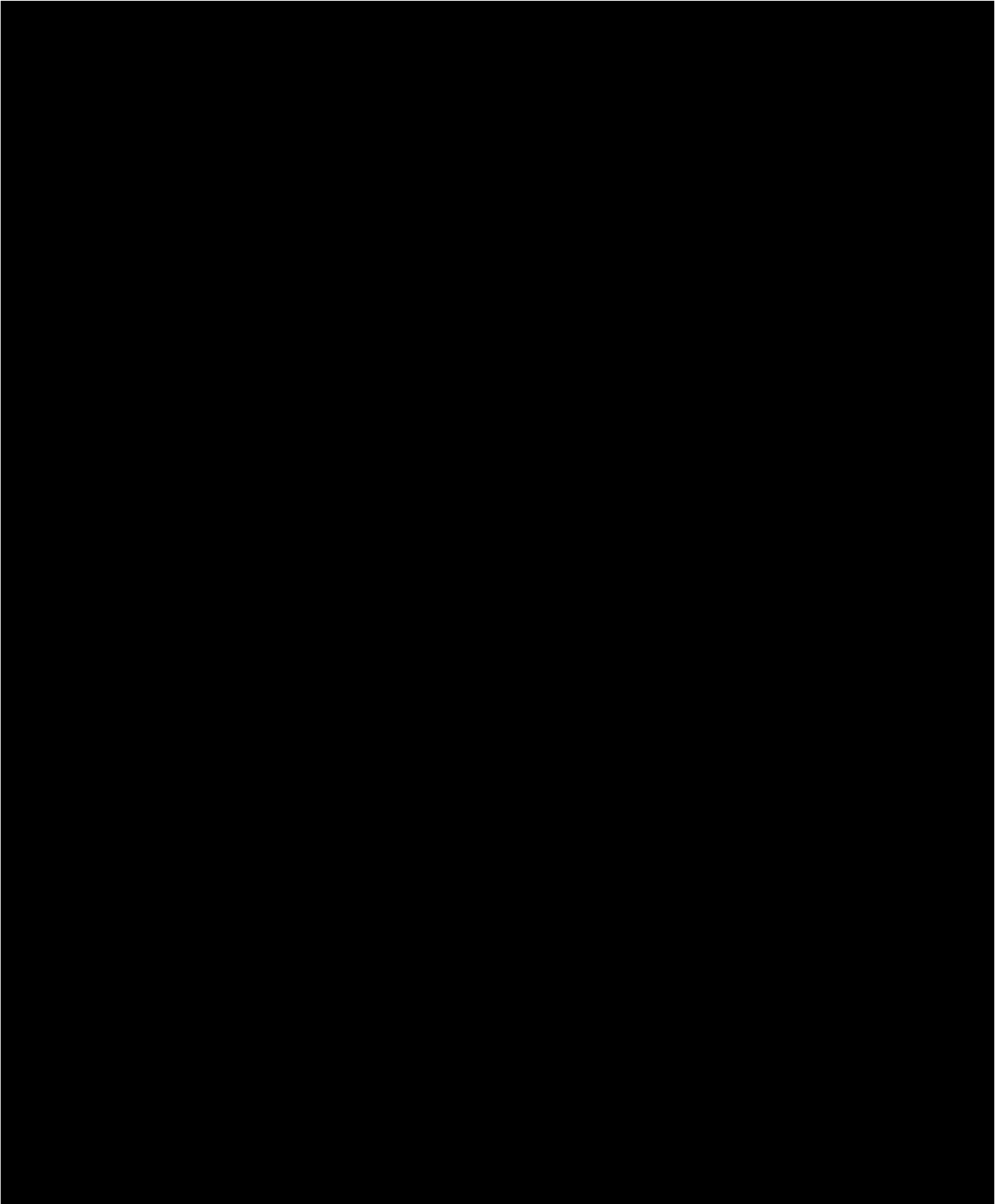
Appendix A System Design Table



⁹ No inertia constant available in DRC

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Appendix B Single Line Diagrams (SLDs)



[REDACTED]

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Appendix C Risks

[REDACTED]

[REDACTED]

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Appendix D Programme



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Appendix E Glossary of Terms

Acronym	Definition	Description
ANM	Active Network Management	A control system used in distribution and transmission networks to manage generation and load in real-time. Maintains system parameters such as voltage, power, phase balance, reactive power and frequency within safe limits while allowing additional generation capacity to connect without overloading the network
CAI	Closely Associated Indirect	Costs which are more directly tied to construction and operation of network assets such as project management and network design as defined within the Regulatory Instructions and Guidance (RIGs).
CAPEX	Capital Expenditure	The funds allocated to acquire, upgrade and maintain the electricity network.
CBA	Cost Benefit Analysis	A systematic approach used to evaluate benefits and disadvantages of a project.
CP2030	Clean Power 2030	The UK Governments Clean Power by 2030 Plan
EJP	Engineering Justification Paper	Submission made to Ofgem by ETOs setting out the scope, costs and benefits for projects or aggregated investment programmes.
G2TWQ	Gate 2 to Whole Queue	NESO developed process as part of connection reform, ensuring only projects meeting specific readiness and Strategic alignment criteria progress through the reform queue.
GW	Gigawatt	A unit for measuring electrical power
GIS	Gas Insulated Substation	A compact, high voltage substation where key components are enclosed in SF ₆ gas for insulation and arc-quenching. Suitable for space constrained areas or harsh environments.
GSP	Grid Supply Point	Interface between the transmission network and the distribution network facilitating the supply of electricity at the distribution level.
GVA	Gross Value Added	A key economic indicator that measures the value of goods and services produced in an area, industry or sector.
HVDC	High Voltage Direct Current	Technology used for transmitting electricity over long distances using direct current.
ITA	Independent Technical Advisor	Responsible for providing assurance to Ofgem on design decisions, procurement processes, cost and overall project delivery of selected load projects across all Transmission Owners.
kV	Kilovolt	Unit of electric potential or voltage.

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Load UIOLI	Load Use-it-or-lose-It	An uncertainty mechanism in RIIO-ET3 which accelerates funding for lower-materiality load project via an allowance that can be recovered.
LR	The RIIO-T3 Load Re-opener Framework	The Load Re-opener provides Electricity Transmission Owners (ETOs) with a mechanism to request funding for load driven reinforcements.
MW	Megawatt	A unit for measuring electrical power
MVA	Mega Volt-Amperes	A unit of apparent power in electrical systems
NESO	National Energy System Operator	The independent body responsible for the planning and operation of the electricity system in Great Britain
NPF4	National Planning Framework 4	The Scottish Governments national spatial strategy for Scotland. Sets out spatial principles, regional priorities, national developments and national planning policy.
NPV	Net Present Value	The difference between the present value of cash inflows and the present value of cash outflows over a period of time.
ODD	Optimal Delivery Date	Reflects an assessment of the date on which delivery of a project would bring the most benefits for the consumers.
ODI	Output Delivery Incentive	ETO's are eligible for financial rewards if projects are delivered on or before the set date. ETO's are liable for penalties if those projects are delivered late.
OHL	Overhead Line	Typically, steel lattice towers, steel or wood poles used to carry high voltage conductors over distance.
OPEX	Operational Expenditure	Costs incurred for operational activities.
PASE	Pre-approval of solution by Engineering	A framework set by Ofgem. A set of pre-approved optioneering designs, preferred technology types and configurations that are typically efficient, deliver the lowest whole-life cost to consumers and, where applicable, build capacity for future network expansion.
PCD	Price Control Deliverable	Set by Ofgem, PCDs are used to set expectations for the outcomes of projects and to manage the timing and delivery of these outcomes.
PCF	Pre-Construction Funding	Provides Transmission Owners with funding at early stages of project development to continue to design and seek consent for large ET investments.
SF⁶	Sulphur Hexafluoride	A synthetic gas that insulates and switches electrical current in switchgear.
SHET	Scottish Hydro Electricity Transmission	Responsible for the electricity transmission network in the north of Scotland.
OSR	Ofgem Scheme Reference Number	The Ofgem provides a unique value for all non-load and load related schemes.
Sole Use Works	Sole Use Enabling Works	Transmission Assets that are exclusively for a specific customers use.

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SPA	Special Protected Areas	Areas part of the UK's European site network of protected areas and are designated under the Habitats Regulations.
SSEN-T	Scottish and Southern Electricity Networks Transmission	Responsible for the electricity transmission network in the north of Scotland.
SSSI	Sites of Special Scientific Interest	A formal conservation designation.
TCA	Transmission Connection Assets	Assets used to connect a customer to the grid. These are paid for by the customer.
TDD	Target Delivery Date	A determined date utilising the P50 delivery date and Optimal Delivery Date (ODD). Part of the Major Projects ODI-F framework.
TOCA	Transmission Owner Connection Agreement	The formal agreement between Transmission Owners, the NESO and the Customer. Outlining the terms and conditions for connecting to the electricity transmission network.
UGC	Underground Cable	Insulated conductors used to transfer high voltage electricity below ground. Offers reduced visual impact and utilised when OHL solution is not possible.
Volume Driver	Generation and Demand Connections Volume Drivers	Provide flexible funding for ETOs to invest in the transmission network in response to the uncertain need for new generation or demand customers to connect.

Table 16: Glossary of Terms