

Guidance

Load Re-opener Guidance and Submission Requirements Document

Publication date:	01 April 2026
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The Load Re-opener provides Electricity Transmission Owners (ETOs) with a mechanism to request funding for load driven reinforcements - whether arising from demand growth, new generation connections, or investments needed to maintain planning standard compliance and support the secure and efficient operation of the GB electricity transmission system.

This Load Re-opener Guidance and Submission Requirements Document sets out the process and requirements for ETOs seeking funding for load-related projects during the RIO-ET3 price control period (2026–2031). These projects are critical to delivering a secure, resilient, and low-cost energy transition, enabling the connection of new generation, reinforcing system boundaries, and supporting the UK’s net zero and Clean Power by 2030 targets.

When we set baseline allowances at RIO-3 Final Determinations, some projects could not be funded due to uncertainty around their economic need, optioneering, scope, or timing. The Load Re-opener provides a structured mechanism for ETOs to bring forward such projects once there is sufficient clarity on these factors, ensuring that consumers only pay for projects when they are justified and represent long-term value.

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1. Introduction

Scope of this Guidance Document

- 1.1 This document provides additional detail regarding the function and operation of the Load Re-opener. This includes the ETO submission requirements and the Ofgem assessment and decision process for this re-opener, and the following related licence conditions:
 - Pre-Construction Funding Re-opener, Price Control Deliverable (Special Condition 3.15)
 - Load Re-opener and Price Control Deliverable (Special Condition 3.18)
 - Major Projects Outputs Delivery Incentive (Special Condition 4.8)
 - Independent Technical Adviser (Special Condition 6.2)
- 1.2 Licensees must also have due regard to the following associated documents:
 - Re-opener Guidance and Application Requirements Document;
 - Price Control Deliverable Guidance and Submission Requirement Document;
 - Major Projects ODI-F Governance Document;
 - Independent Technical Adviser (ITA) Guidance Document; and
 - ET2/ET3 Crossover Guidance and Submission Requirements Document .
- 1.3 Figure 1 below provides an overview of the relevant licence conditions, their associated documents, that are common to both the Load Re-opener and Centralised Strategic Network Plan (CSNP) Re-opener and how they relate to the development of a project.

Figure 1: Load Re-opener/CSNP-F Framework Overview

Licence condition, policy decision and Associated Documents (ADs)	Key TO activities
<p>SpC 3.15: Pre-construction funding</p> <ul style="list-style-type: none"> Initial allowance set for load projects. Set on a project-by-project basis. PCD allows 100% of funding if achieve full consents, interim milestones also given. <p>Final Determinations ET Annex Chapter 4 No AD.</p>	<p>Submission of material planning consents</p>
<p>SpC 3.18: Load Re-opener and Price Control Deliverable (PCD)</p> <ul style="list-style-type: none"> Multiple tracks for TOs to submit projects for designation of PCD and LO, eligibility for PCF, and later for project allowances. Includes cost assessment for all projects, needs case assessment for some projects not approved at FDs. <p>Final Determinations ET Annex Chapter 4 AD: Load Re-opener Guidance and Submission Requirements Document</p>	<p>Finalise design. Tender contracts. Begin construction.</p>
<p>SpC 3.19: CSNP Re-opener and Price Control Deliverable (PCD). NESO's CSNP taken as needs case.</p> <ul style="list-style-type: none"> Designation of PCD and LO, and TO submission for project allowances at Project Assessment stage. <p>Final Determinations ET Annex Chapter 4 AD: CSNP Re-opener Guidance and Submissions Requirements Document</p>	
<p>SpC 4.8: Major Projects ODI-F</p> <ul style="list-style-type: none"> Set for all CSNP Re-opener Outputs at the time of designating under the CSNP Re-opener. Considered for Load Re-opener projects at or after Eligibility Assessment stage. Each projects will be assessed against its incentive annually. <p>Final Determinations ET Annex Chapter 3 AD: Major Projects ODI-F Governance Document</p>	<p>Project delivery</p>

Scope of the Load Re-opener

1.4 As set out in our RIIO-3 Final Determinations¹ and the electricity transmission (ET) licences, qualifying investment expenditure incurred can be recovered through the Load Re-opener for projects where:

- costs are expected to be more than £40m of capital expenditure;
- it is in whole or in part, either:

¹ [RIIO-3-Final-Determinations-ET.pdf](#)

- (i) load-related or related to a shared-use or sole-use generator connection project²; or
- (ii) excluded from the volume driver uncertainty mechanism, having been classified as relating to an atypical generation or demand connection project whose forecast costs fall outside the thresholds set for the volume driver mechanisms if applicable (Special Conditions 3.11 and 3.12) and is greater than £40m³;
- expenditure begins during the RIIO-ET3 Price Control Period; or
- expenditure began during the RIIO-ET2 Price Control Period and where construction of the project is expected to be completed within the RIIO-ET3 or a future Price Control Period.

1.5 The types of projects ETOs may bring forward include:

- Boundary reinforcements designed to provide greater transfer capability across system boundaries and/or maintain National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS) compliance.⁴
- Load related projects identified by the National Energy System Operator (NESO).
- Atypical generation or demand connection projects whose forecast costs fall outside the thresholds set for the volume driver mechanisms (Special Conditions 3.11 and 3.12).

1.6 In addition, projects that relate to one of the areas set out at paragraph 1.5 but also relate to the health of existing assets on the network, also referred to as ‘shared driver’ projects, which have not been funded within baseline allowances, can also be brought forward through the Load Re-opener.

Overview of the Load Re-opener process

1.7 The Load Re-opener has two key process elements: Assessment Tracks and Assessment Stages:

- Assessment Tracks - define the overall pathway an application follows, tailoring the level of regulatory scrutiny to the complexity and maturity of a project. There are three tracks, ranging from a single-stage review for projects with established engineering options (Track 1) to multi-stage assessments for more complex or high-value schemes (Tracks 2 and 3).

² Includes Shared Use Projects (TORI) and connection wider works.

³ Page 107 Generation and Demand Connections Volume Drivers of [RIIO-3-Final-Determinations-ET.pdf](#)

⁴[Security and Quality of Supply Standard \(SQSS\) | National Energy System Operator](#)

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- Assessment Stages - are the distinct steps within each Assessment Track that serve specific regulatory purposes—such as confirming eligibility, validating the needs case and optioneering, and determining efficient costs.
- 1.8 Together, tracks and stages provide an assessment framework that is proportionate, flexible and agile; that accelerates our assessment where certainty exists while ensuring robust consumer protection for projects with greater uncertainty.
- 1.9 The Load Re-opener windows for all Assessment Stages are:
- (a) The first five working days in April in the Regulatory Years 2027/28 to 2030/31;
 - (b) The first five working days in October in the Regulatory Years 2026/27 to 2030/31;
 - (c) 5-8 May 2026 in the Regulatory Year 2026/27 only; or
 - (d) as otherwise directed by Ofgem.

Load Re-opener tracks

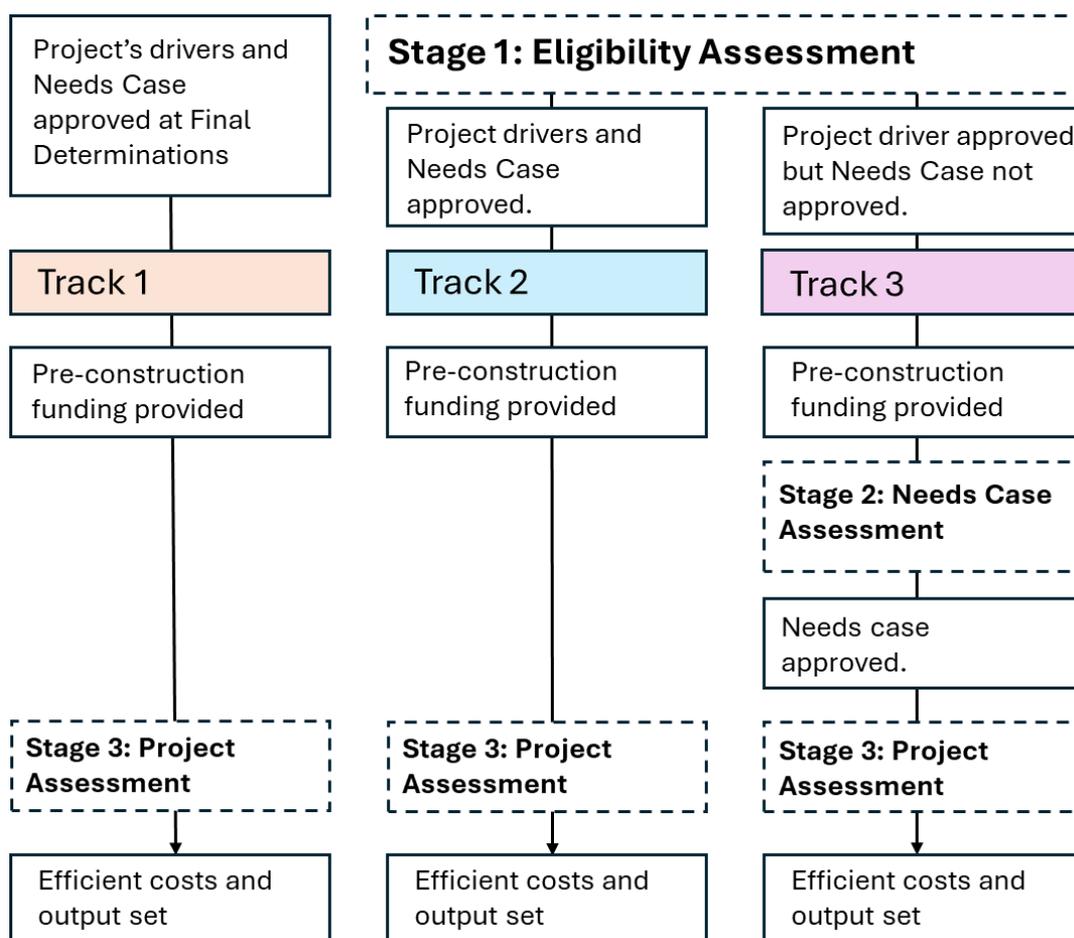
- 1.10 Figure 2 sets out how Ofgem will determine the appropriate Assessment Track for assessing a project under the Load Re-opener. The multi-track structure allows for a proportional approach where we apply more checks where uncertainties are greater.
- 1.11 As part of Ofgem’s assessment of ETOs’ business plans for the RIIO-3 Final Determinations, we determined that ETOs can apply directly to Ofgem to set efficient cost directly through the Project Assessment Stage (Track 1) for specific projects.⁵
- 1.12 Track 1 is also available for use by RIIO-ET2 projects where the needs case (eg Final Needs Case under the Large Onshore Transmission Investments (LOTI) Re-opener) was approved prior to or soon after 1st April 2026 under a RIIO-ET2 mechanism.
- 1.13 For all other RIIO-ET3 projects which are submitted to Ofgem during this Price Control Period, we will use the Eligibility Assessment to make our decision on the Assessment Track. Through the Eligibility Letter ETOs may apply to:
- determine whether the project is eligible for the Load Re-opener; or

⁵ These are set out in Appendix 1 of the unredacted versions of our RIIO-3 Final Determinations, company annexes.

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- determine whether the project is eligible for the Load Re-opener and get approval of early optioneering.
- 1.14 Optioneering is a core component of the Load Re-opener assessment process. Its purpose is to ensure each project is supported by clear, proportionate and transparent assessment of credible alternative solutions, balancing engineering feasibility, cost efficiency, deliverability, environmental and community impacts, system needs, and long-term optionality. No single metric or consideration is determinative. However, ETOs must demonstrate how qualitative and quantitative factors have been balanced on a project-specific basis.
- 1.15 To support the determination of Assessment Tracks, Ofgem uses the Pre-approval of Solutions by Engineering framework (PASE). Where solutions show strong alignment with PASE, this can give confidence that the project is sufficiently defined and offers long-term consumer benefits, to allow for a streamlined review (Track 2). However, ETOs must still present the relevant evidence set out in this guidance, with the level of scrutiny adjusted according to how closely the proposed solution aligns with PASE. Alternative approaches can still be taken forward where strong supporting evidence is provided.
- 1.16 PASE does not prejudice or prevent ETOs' final engineering design choice. Where there are deviations from PASE but strong justifications for the appropriateness and consumer benefits of the solution, we may determine that projects may progress and be assessed through Track 2.
- 1.17 Track 3 will be used when an ETO chooses a solution that materially deviates from PASE approved options and/or ETOs do not provide sufficient optioneering justification to Ofgem. In such cases, the ETO must submit a separate Needs Case when the project matures.
- 1.18 Projects with capital costs over £300m will default to Track 3, even if they retain PASE principles. Where projects are above £300m and align with PASE we will aim to expedite these reviews.
- 1.19 Pre-Construction Funding (PCF) at 8.2% of total forecast project costs, will be provided once the Eligibility Assessment is approved, regardless of whether we have decided the project follows Track 2 or 3.

Figure 2: Load Re-opener tracks and their applicable Assessment Stage



1.20 We will use templates for submissions to ensure that regulatory submissions are standardised to help expedite our assessment. These templates and their applicability to each stage are set out in Appendix 2.

Load Re-opener Assessment Stages

1.21 An Assessment Stage is a distinct step within the Load Re-opener. For each stage we have set defined criteria and evidence requirements to enable Ofgem's funding determination.

1.22 The applicability of an Assessment Stage for each Load Re-opener track is not uniform and varies between Load Re-opener tracks (eg projects assessed under Track 1 and 2 are not subject to the Needs Case Assessment), reflecting the differing complexity and nature of projects. Below we set out the purpose, scope and outcome of each Assessment Stage:

Stage 1: Eligibility Assessment (EA)

1.23 Applicable for load projects that were not approved in RIIO-3 Final Determinations, the EA is based upon the ETO's Eligibility Letter submission. ETOs may submit an Eligibility Letter for either:

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- Eligibility only, where optioneering remains at an early stage and multiple credible options are still under consideration. In such cases, Ofgem's assessment will focus on confirming the network need, the project's eligibility under the Load Re-opener, and the appropriate Assessment Track; or
- Eligibility and optioneering needs case - where an ETO has developed a sufficiently mature view of the preferred engineering solution. It may choose to submit an Eligibility Letter that seeks both eligibility and approval of the optioneering needs case. In these circumstances, additional evidence consistent with the expectations set out in this guidance must be provided to enable Ofgem to undertake an early review of the needs case and preferred option.

1.24 The output of this stage includes:

- Establishing project eligibility to apply for outputs and associated allowances under the Load Re-opener;
- Assigning the appropriate Assessment Track (Track 2 or Track 3);
- Setting the 8.2% PCF allowance, with PCD applied in line with RIIO-3 Final Determinations, where Eligibility Assessment is successful;
- Either:
 - (a) Determination of the Major Projects Output Delivery Incentive - Financial (ODI-F) – setting out the incentive design, Target Delivery Dates and potential rewards; or
 - (b) Minded-to position on whether the ODI-F will or will not apply for determination at either the Needs Case or Project Assessment stages; and
- Early determination of whether the project will be subject to Independent Technical Adviser (ITA) monitoring, with Ofgem setting out either a minded-to view on whether ITA monitoring should apply, or confirmation that it will apply.

Stage 2: Needs Case Assessment (NCA)

1.25 The purpose of this stage is to validate that the project remains justified and the proposed engineering solution delivers consumer value. This stage:

- Reviews the network need and investment drivers;
- Reviews detailed optioneering and rationale for the preferred option;
- Requires robust cost-benefit analysis and sensitivity testing;

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- Ensures alignment with NESO system planning documents (eg Networks Options Analysis (NOA), Future Energy Scenarios (FES), supporting the Centralised Strategic Network Plan (CSNP) and policy objectives); and
- Addresses any material changes since the Eligibility Assessment stage.

Stage 3: Project Assessment (PA)

1.26 The purpose of this stage is to determine the efficient cost allowance and readiness for delivery before setting outputs and allowances in the licence. This stage:

- Assesses detailed cost submissions, procurement outcomes and risk management;
- Benchmarks costs against industry standards and previous projects;
- Confirms delivery strategy and contractual readiness;
- Provides determination on whether project is subject to ITA monitoring;
- Provides determination of whether project is subject to Major Projects ODI-F – in accordance with the Major Projects ODI-F Governance Document; and
- Sets funding allowances, outputs, and delivery dates in the licence. (This includes determination of ODI-F related delivery dates, as well as delivery dates linked to PCDs or Licence Obligations.)

Treatment of RIIO-ET2 outputs

1.27 This section sets out how Ofgem intends to treat RIIO-2 legacy load-related outputs and should be read in conjunction with the ET2/ET3 Crossover Guidance and Submission Requirements Document.

1.28 The Load Re-opener is available for RIIO-ET2 load-related projects associated with the LOTI and Medium Sized Investment Projects (MSIP) re-openers that:

- have not had their outputs or funding determined by Ofgem within the RIIO-ET2 price control; or
- have a Costs and Outputs Adjustment Mechanism (COAE) application for a RIIO-ET2 load related output is made after the 31 March 2026; and/or
- have had their allowances and outputs determined within the RIIO-ET2 window and have had these moved to Special Condition 3.18 for the purposes of ensuring project continuity between price control periods.

1.29 For clarity, the ET2/ET3 Crossover mechanism will manage LOTI/MSIP outputs and allowances where:

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- ET2 LOTI or MSIP outputs are delayed into ET3, projects can have allowances reprofiled using the crossover mechanism.
 - For ET2 LOTI/MSIP outputs have delivery dates in ET3 and were not fully funded in ET2, ET3 allowances may be provided via the crossover mechanism.
 - COAE applications are made before 31 March 2026 but are decided in ET3.
- 1.30 This approach ensures a coherent transition between price controls, avoids unnecessary duplication of mechanisms across ET2 and ET3, and provides clarity to ETOs regarding how outputs will be funded during RIIO-ET3.
- 1.31 Although the MSIP and LOTI licence conditions will not be carried forward into RIIO-ET3, Ofgem will ensure that any enforcement gap arising from the expiry of RIIO-2 MSIP or LOTI licence conditions will be addressed by implementing new obligations (where needed) within the RIIO-ET3 licence. This ensures continuity of ETO accountability and protects consumers in cases where RIIO-2 delivery obligations extend into the RIIO-ET3 period.

Major Projects ODI-F

- 1.32 This section should be read alongside the Major Projects ODI-F Governance Document.
- 1.33 Ofgem will determine through the Load Re-opener whether there is sufficient justification for applying an incentive to reward on-time delivery and penalise late delivery for a project. This will be based on the following three factors, considered holistically and without specific thresholds:
- Consumer benefit – whether timely or accelerated delivery would provide a clear benefit to consumers, or conversely whether late delivery would result in consumer detriment.
 - Strategic importance – whether the project is strategically important, eg because it enables delivery of government targets, supports system operability, or is critical for regional generation/demand developments.
 - Practicality and data availability – whether the inputs needed to apply the ODI-F can be obtained (eg whether a robust P50 or expected Delivery Date can be produced).
- 1.34 The Major Projects ODI-F can be set at any Assessment Stage of the Load Re-opener and is dependent upon the quality of information provided by the ETO.
- 1.35 For Load Re-opener projects, Ofgem will apply the following process, which mirrors the approach for CSNP projects set out in the Major Projects ODI-F Governance Document:

Step 1 – ODI-F

Ofgem decide whether the project should be subject to the Major Projects ODI-F by applying the criteria specified in paragraph 1.33.

Step 2 – Determination of Target Delivery Date

Where Ofgem decides that the project should be considered for the ODI-F, we will make a determination of the appropriate incentive design and parameters, including the Target Delivery Date (TDD), potential reward/penalty structures, and relevant incentive inputs.

Step 3 – Consultation

Alongside the consultation for setting Load Re-opener outputs and delivery date, we will consult on our proposal to:

- designate the Load Re-opener project as a Major Project;
- apply the Major Projects ODI-F;
- set the proposed Major Projects ODI-F TDD; and
- specify the proposed incentive parameters.

Any confidential information will be shared only with relevant parties.

Step 4 – Decision

Ofgem will review consultation responses and publish a decision confirming whether the project will be designated as a Major Project subject to the ODI-F.

Step 5 – Licence Modification

Where a project is designated as a Major Project, Ofgem will consult on the necessary licence modifications to Special Condition 4.8, at the same time as the consultation on Ofgem’s Project Assessment.

Step 6 – Licence Implementation

Ofgem will implement the licence modifications required to apply the Major Projects ODI-F to the project.

Role of the Independent Technical Adviser (ITA)

- 1.36 Ofgem may designate an ITA to assure Load Re-opener projects under Special Condition 6.2. The decision to designate the ITA will follow the decision-making process and considerations set out in the ITA Guidance Document. Such a decision may occur at any stage of the Load Re-opener process.
- 1.37 The ITA will act as an impartial body providing assurance to Ofgem on the design, procurement, cost, and delivery of selected load-related projects during RIIO-ET3. While the ITA holds no decision-making authority, the ITA’s insights will inform Ofgem’s regulatory decisions and help ensure timely, efficient delivery of strategically important investments. The ITA’s scope includes supporting the monitoring of project delivery and making observations on change control, such

as COAE or Delay Events, with activities tailored to project complexity and maturity.

Submission of data

- 1.38 Commercial or otherwise sensitive information should be submitted to Ofgem via Huddle or as otherwise directed by the Authority.

Pre-approval of Solutions by Engineering (PASE)

What is PASE?

- 1.39 PASE is 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 in capacity for future network expansion.
- 1.40 PASE will be used by Ofgem to quickly and consistently assess transmission reinforcement proposals in the Eligibility Assessment stage of the Load Re-opener process by relying on pre-approved engineering designs to reduce regulatory burden while still allowing ETOs to justify deviations from these designs and technology types.
- 1.41 Appendix 1 sets out the engineering preferences and configurations under PASE. Within PASE there are two categories of PASE-aligned solutions:
- **Primary Options:** Engineering solutions that fully align with PASE principles and represent the idealised approach.
 - **Variant Options:** Alternative designs that still adhere to PASE principles but are adapted to specific system or locational circumstances. If an ETO selects a Variant Option, it must provide justification for its use in its Eligibility Letter submission.
- 1.42 ETOs are expected to provide proportionate, high-level but robust evidence – through the Eligibility Letter submission - explaining why a Variant Option represents the most appropriate solution. The explanation should highlight system need, planning, environmental and geographical constraints, deliverability and whole-life consumer value. This includes demonstrating how the option aligns with the principles detailed in paragraph 1.44, ETOs may provide clear optioneering analysis that compares credible alternatives, setting out any site-specific factors that necessitate deviation from Primary Options, and showing how the proposed designs continue to deliver long-term benefits for consumers.
- 1.43 Where relevant and possible, submissions should include supporting technical evidence, cost-benefit and whole-life cost analysis, environmental or consenting

considerations, and stakeholder engagement outcomes to substantiate why the Variant Option is justified.

Purpose and Principles

1.44 PASE approved solutions will follow these common principles:

- **Whole-life cost efficiency:** PASE recognises that some solutions may involve higher upfront costs but offer the lowest lifetime cost, typically over asset lives of 40+ years. Based on engineering expertise and experience with historical projects, listed solutions provide benefits such as improved network performance and reduced long-term costs, justifying initial investment.
- **Adaptability and future-proofing:** PASE prioritises solutions that are flexible, well-established, and capable of adapting to future technological or policy changes. This means designs that provide optionality for system growth, reducing the risk of asset stranding and enabling capacity expansion without major redesign. This combination of proven design and forward-looking capability gives confidence in long-term value and reliability.
- **Standardisation and proven design:** Solutions align with standard engineering configurations that have demonstrated reliability and cost efficiency. This reduces design risk and accelerates delivery.
- **Alignment with net zero and system growth:** Solutions help support decarbonisation targets, facilitate renewable integration, and maintain system stability under evolving generation and demand patterns.
- **Risk reduction:** By using pre-approved solutions, ETOs reduce regulatory uncertainty and avoid extensive optioneering reviews, provided compliance is demonstrated.

How PASE is used in the Load Re-opener?

1.45 The determination of the Assessment Tracks at the Eligibility Assessment stage will be informed by PASE. A project being PASE compliant will minimise our need for detailed optioneering and engineering reviews. ETOs are encouraged to adopt PASE aligned solutions during optioneering, where this is appropriate. PASE aligned projects which also have a clearly established consumer benefit for being constructed will follow Track 2 without the need for separate Needs Case Assessment.⁶ If a project deviates from PASE and the ETO cannot provide robust justification for the alternative solution, we will require the ETO to submit an Engineering Justification Paper (EJP) at the Needs Case Assessment (in Track 3) to explain why the solution was chosen.

⁶ Unless the project cost is >£300m, in which case it will be Track 3.

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- 1.46 Ofgem will apply a proportionate level of regulatory scrutiny that reflects both the maturity of the project and the degree of alignment with PASE. Where a project is fully PASE-aligned, Ofgem’s review will typically be lighter-touch, focusing on confirming eligibility, checking that key assumptions are reasonable. This means ETOs are still expected to provide context of the project, so that Ofgem has a full picture of how the proposed solution fits in with its surrounding environment.
- 1.47 For projects using PASE Variant Options, Ofgem will expect proportionate additional justification and supporting evidence targeted at the specific areas of deviation from the Primary Option. For non-PASE-compliant projects, or where project maturity is low, Ofgem’s assessment will necessarily involve more detailed review of optioneering, economic justification, deliverability, environmental constraints, and long-term consumer value.
- 1.48 Across all cases, evidence requirements should be proportionate to the information reasonably available at the time: early-stage submissions may rely on high-level data, indicative analysis, and clear articulation of uncertainties, whereas more developed projects should provide progressively firmer technical, economic, delivery and cost information to support robust regulatory scrutiny.
- 1.49 We recognise that PASE variant or non-PASE aligned designs may sometimes allow for the unlocking of additional benefits that PASE compliant designs cannot. Such design choices may better support time critical delivery, reduce outage requirements, and/ or unlock local environmental benefits. In these cases, we expect ETOs to be explicit in explaining the trade-offs that have informed their design choices relative to the PASE-aligned equivalent design.
- 1.50 Where a PASE Variant Option or non-PASE aligned solution is proposed, it will be considered for Track 2 where the ETO can demonstrate through optioneering assessment that the alternative delivers clear measurable long-term consumer benefits. Any justification based on factors such as delivery acceleration or programme risk may be supported by strong evidence and may be presented alongside any early whole life cost/ cost benefit analysis, ensuring that short-term gains do not compromise efficiency, resilience, or future-proofing in line with PASE principles.

Track 2 Optioneering Assessment

- 1.51 Projects where the ETO has undertaken high-level optioneering, and the evidence demonstrates a PASE-aligned solution, will be eligible for Track 2 Assessment.
- 1.52 We expect robust justifications for Variant Options or non-PASE aligned solutions following our guidance in Appendix 3.

Track 3 Optioneering Assessment (Explain and Justify)

- 1.53 Where projects are too immature for ETOs to have undertaken high-level optioneering, or where for the preferred solution the rationale for either PASE alignment or non-PASE alignment is poorly justified, Track 3 must be followed.
- 1.54 In this track an optioneering assessment is undertaken as part of the Needs Case Assessment. This ensures that alternative solutions are fully justified and are in the consumers' interests.
- 1.55 For projects assessed under Track 3, the optioneering review through the Needs Case Assessment will determine whether the proposed solution is adequately justified. Outcomes are defined as follows:
- **Justified** – No material concerns raised; the project may proceed to Project Assessment to have efficient costs determined.
 - **Partially Justified** – Issues must be addressed through an Ofgem-directed process before or during Project Assessment. Ofgem must be satisfied in making any direction that, on the balance of probabilities, the proposed solution is correct and only limited uncertainties remain. The Authority may either:
 - (a) permit progression once resolved; or
 - (b) allow progression with unresolved issues that may be subject to disallowance.
 - **Not Justified** – Optioneering solution is not justified and there are significant concerns that must be resolved. In such cases the ETO must either re-submit its Needs Case or, if it is a project which cannot be delayed, progress to Project Assessment on the understanding that it may be subject to cost disallowances which reflect the consumer value lost by its sub-optimal optioneering choices.
- 1.56 Where licensees can provide additional cost driver information this should be included in the Project Assessment submission. Project Assessment submission compliance is dependent on the use of the prevailing Regulatory Reporting Pack (RRP) template, though licensees can submit additional information if required to support their cost driver justification.

PASE and Electricity Transmission Design Principles (ETDP)

- 1.57 The ETDP sets the strategic and design principles for transmission infrastructure across Great Britain, guiding decisions on technology choices and design standards, whilst PASE translates these principles into practical, pre-approved engineering solutions, which act as a guide for assigning the Load Re-opener Assessment Tracks.

1.58 The PASE framework (developed by Ofgem) and the ETDP (developed by the NESO) share common principles: to deliver efficient, future-proof transmission infrastructure that meets system needs while protecting consumers and the environment. Whilst PASE provides a structured mechanism to triage regulatory submissions, it may not, in all circumstances, capture the full range of considerations set out in the ETDP.

1.59 PASE and the ETDP have shared objectives:

- **Economic benefits:** Both frameworks prioritise lowest whole-life cost solutions, consistent with Ofgem’s statutory duties and ETDP’s principle of promoting economy and efficiency.
- **Future-proofing:** PASE-approved solutions anticipate future network needs, aligning with ETDP’s focus on flexibility and resilience within recognised planning horizons.
- **Environmental and community considerations:** ETDP principles require sensitivity to landscape and community impacts. The PASE framework evaluates solutions that incorporate prevailing network and site constraints considerations through standardised designs and targeted justification.
- **Regulatory clarity:** ETDP provides overarching design principles, while PASE operationalises these principles into specific engineering configurations, reducing ambiguity in project optioneering.

Engagement with Ofgem

1.60 Ofgem expects ongoing engagement throughout the development of projects to ensure transparency on optioneering and design decisions. Early dialogue helps identify and resolve issues before they impact timelines or costs.

Load Board

1.61 The Ofgem ET Load Board is a senior-level forum established to provide coordinated Ofgem guidance on scope and design decisions for RIIO-ET load-related projects (including connections and enabling works, Accelerated Strategic Transmission Investment (ASTI), Centralised Strategic Network Plan (CSNP), the Transitional Centralised Strategic Network Plan (tCSNP2), and Clean Power 2030 (CP2030) projects). The finalised Load Board Terms of Reference was shared with ETOs via email in early 2026.

1.62 The Load Board’s purpose is to ensure ETOs receive clear, consistent strategic steer across Ofgem teams. The Load Board will monitor projects that will progress through the Load Re-opener via ETO status reports. This will help identify and escalate regulatory blockers where necessary. Through the Load Board, Ofgem can offer targeted guidance on potential approval challenges for projects progressing through the Load Re-opener pipeline.

Project cancellation

- 1.63 ETOs must complete and submit the ‘Cancelled Projects’ template (see Appendix 2) to Ofgem as soon as reasonably practicable after the decision to cancel a Load Re-opener project has been confirmed.
- 1.64 Ofgem will review the submission to determine:
- Whether allowances need to be recovered.
 - Whether any costs incurred were inefficient.
- 1.65 Where a Load Re-opener project is in-flight and a Price Control Deliverable (PCD) has been set, any project cancellation will automatically trigger a Non-Delivery Assessment – as set out in the Price Control Deliverable Guidance and Submission Requirement Document. Ofgem may apply associated reductions or adjustments to allowances in line with established Non-Delivery Assessment processes.
- 1.66 If the project has only received PCF, Ofgem will seek to recover any unused PCF and any inefficient spend via direction under Special Condition 3.15, applying principles set out in the Price Control Deliverable Reporting Requirements and Methodology Document.
- 1.67 Where applicable, we will publish a statutory consultation on licence modifications to:
- Special Condition 3.18 (Load Re-opener and Price Control Deliverable).
 - Special Condition 4.8 (Major Projects Output Delivery Incentive).
- 1.68 ETOs must notify Ofgem promptly to avoid delays in allowance recovery and licence updates. Supporting evidence must be proportionate and auditable.

Material Project Change

- 1.69 Where projects have significantly changed since our Final Determinations (where a project was assigned Track 1), or between our Eligibility Assessment, Needs Case Assessment and Project Assessment (where a project was assigned Track 2 or 3), ETOs must notify Ofgem as soon as possible. Material changes may include:
- a) Significant changes to the preferred technical solution (eg deviation from PASE alignment or major design alterations – even if PASE alignment remains).
 - b) Material changes in estimated costs (increase exceeds the greater of 50% of the project’s forecast cost or more than £50m - eg for a £1bn project, the threshold would be a £500m increase, not £50m).
 - c) Significant changes in delivery timing (eg delay or acceleration of ≥ 12 months in key milestones).

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- d) Changes in project drivers (eg withdrawal of generation developers that drive system need reduction).
- e) Other material factors – such as new planning or consenting risks that materially affect deliverability.

1.70 ETOs should reach out to Ofgem if they are unsure if a project change is classified as a Material Project Change.

1.71 ETOs must complete and submit, at any time, the 'Material Project Changes' template (see Appendix 2) to Ofgem. The template will include:

- Project identification details (name, reference, original track);
- Summary of changes and reasons for change;
- Updated project drivers and justification for continued need;
- Revised optioneering analysis and rationale for preferred option;
- Updated Cost Benefit Analysis (CBA), Whole Life Cost Analysis (WLCA) and sensitivity analysis - Ofgem will direct whether the updates should be included as part of the Material Project Changes submission or as part of supporting evidence at the Needs Case or Project Assessment stage;
- Delivery and risk impacts, including mitigation strategies; and
- Supporting evidence (eg, technical drawings, cost reports, stakeholder correspondence).

1.72 Ofgem will review the submission to determine:

- Whether the project remains in scope of the original project need.
- Whether additional reporting is required at the Needs Case or Project Assessment stage.
- Whether the project should revert to Eligibility Assessment or move to Track 3 for further scrutiny.

1.73 Ofgem will notify to the ETO in writing whether the project is:

- **Still in Scope:** Project continues under Track 1 or 2 with additional reporting requirements at the Project Assessment Stage.
- **Re-assigned:** Project moves to Track 3 for Needs Case Assessment, if the project was originally assigned either Track 1 or Track 2, and a Needs Case Submission is required to justify optioneering.
- **Re-submission required:** Ofgem may request a new Eligibility Letter if changes identified by ETOs are significant enough to warrant a re-review of the project.

1.74 If the load driver falls away, Ofgem may direct the ETO to apply under the Non-Load Re opener (Special Condition 3.10). In this instance the materiality threshold may not apply. Ofgem may issue a direction to update Special Condition 3.15 to adjust PCF allowances where appropriate.

Overview of regulatory process

- 1.75 This section sets out the regulatory steps for each of the three Load Re-opener tracks.
- 1.76 Eligibility for a project to be funded through the Load Re-opener occurs at the RIIO3-Final Determinations (for Track 1 projects) or through the Eligibility Assessment (for Track 2 and 3 projects).
- 1.77 For projects that are approved for PCF as part of the Eligibility Assessment, allowances and outputs will be updated in Special Condition 3.15.
- 1.78 Where we approve outputs and efficient funding under the Load Re-opener, under Special Condition 3.18 Load Re-opener and Price Control Deliverable, we will consult on the license modification to include the PCD outputs and delivery dates, and licence obligations.

Track 1: Projects approved at RIIO-3 Final Determinations

- 1.79 For any projects approved under Track 1 as part of the RIIO-3 Final Determinations we will take the following steps:

Step 1 – Project Assessment Submission

ETOs submit the necessary project documentation using the Stage 3 Template – Project Assessment as set out in Appendix 2.

Step 2 – Project Assessment

Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted.

Ofgem assesses the licensee’s submission.

Step 3 – Consultation

Ofgem will publish a consultation on funding, outputs and delivery timelines for the project.

Step 4 – Decision

Ofgem will consider consultation responses and publish its decision. (Ofgem aims to undertake the Project Assessment within 6 months once all relevant information has been submitted to Ofgem’s satisfaction).

Step 5 – Licence modification

Ofgem will publish a statutory consultation on relevant modifications as required to Special Condition 3.18 Load Re-opener and Price Control Deliverable (LRt).

Step 6 – Licence implementation

The required modifications will be made to the conditions set out in Step 5 and implemented in the licences.

Track 2 and Track 3

- 1.80 Below sets out the steps for projects assessed under the Load Re-opener, which follow either Track 2 or Track 3. Both tracks share initial eligibility steps but differ in subsequent requirements.
- 1.81 For clarity, projects in Ofgem’s RIIO-ET3 Final Determinations that were assessed as Track 3 must submit an Eligibility Letter. We expect these projects to be further developed and may demonstrate their eligibility for Track 2 through the Eligibility Assessment.

Common Steps for Both Tracks

Step 1 – Eligibility Assessment Submission

ETOs submit the necessary project documentation following Stage 1 Template – Eligibility Letter as set out in Appendix 2.

Step 2 – Eligibility Assessment

Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted. Ofgem will assess the licensee’s submission and publish its decision to:

- (a) Accept project eligibility and invite the ETO to submit a **Project Assessment Submission (Track 2)** at an appropriate re-opener window (we may need to issue a policy consultation in order to do this, depending on materiality and consumer impact of the decision); or
- (b) Accept project eligibility, and invite the ETO to submit a **Needs Case Assessment Submission (Track 3)** at an appropriate re-opener window (we may need to issue a policy consultation to do this, depending on materiality and consumer impact of the decision); or
- (c) Reject project eligibility.

At the same time Ofgem will publish its decisions or minded-to decisions on applying the Major Projects ODI-F or ITA to the project.

Ofgem will publish its rationale for decisions. Ofgem aims to undertake its Eligibility Assessment within 3 months for Track 3 projects and 3-6 months for Track 2 projects, provided all relevant information has been submitted to Ofgem’s satisfaction.

Step 3 – Pre-Construction Funding (PCF)

If the project is approved for Track 2 or 3, Ofgem will, at the same time as out Eligibility Assessment decision, issue a direction to update Special Condition 3.15 to apply PCF to the project. Once we approve an Eligibility Letter, it will be considered a “proposed Load Re-opener Output” for the purposes of Special Condition 3.15.

Track 2

Step 4 – Project Assessment Submission

ETOs submit the necessary project documentation using the Project Assessment template (see Appendix 2), including any supplementary information required by Appendix 3.

Step 5 – Project Assessment

Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted.

Ofgem assesses the licensee’s submission.

Step 6 – Consultation

Ofgem publishes a consultation on funding, outputs, and delivery timelines. Ofgem may also consult on a statutory modification to Special Condition 4.8, to make a Load Re-opener Output subject to the Major Projects ODI-F. The statutory consultation for modifications to Special Condition 3.18 and Special Condition 4.8 for the same project may be undertaken simultaneously.

Step 7 – Decision

Ofgem considers consultation responses and publishes its decision. (Ofgem aims to undertake the Project Assessment within 6 months once all relevant information has been submitted to Ofgem’s satisfaction).

Step 8 – Licence Modification

Ofgem publishes a statutory consultation on modifications as required to Special Condition 3.18 Load Re-opener and Price Control Deliverable (LRt).

Step 9 – Licence Implementation

Required modifications are made and implemented in ETOs’ licences.

Track 3

Step 4 – Needs Case Assessment Submission

ETO submits the necessary project documentation using the ‘Needs Case’ template (see Appendix 2), including any supplementary information required by Appendix 3.

Step 5 – Needs Case Assessment

Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted.

Ofgem assesses the licensee’s submission and publishes its decision on whether the licensee can apply for a Project Assessment (Ofgem aims to undertake a Needs Case Assessment between 4-6 months once all relevant information has been submitted to Ofgem’s satisfaction). Ofgem may also consult on a statutory modification to Special Condition 4.8, to make a Load Re-opener Outputs subject to the Major Projects ODI-F.

Step 6 – Project Assessment Submission

ETOs submit the necessary project documentation using the Stage 3 Template – Project Assessment as set out in Appendix 2 (including submission and any supplementary information as set out in Appendix 3).

Step 7 – Project Assessment

Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted.

Ofgem assesses the licensee's submission.

Step 8 – Consultation

Ofgem publishes a consultation on funding, outputs, and delivery timelines. Ofgem may also consult on a statutory modification to Special Condition 4.8, to make a Load Re-opener Outputs subject to the Major Projects ODI-F. The statutory consultation for modifications to Special Condition 3.18 and Special Condition 4.8 for the same project may be undertaken simultaneously.

Step 9 – Decision

Ofgem considers consultation responses and publishes its decision (Ofgem aims to undertake the Project Assessment within 6 months once all relevant Project Assessment information has been submitted to Ofgem's satisfaction).

Step 10 – Licence Modification

Ofgem will publish a statutory consultation on modifications as required to Special Condition 3.18 Load Re-opener and Price Control Deliverable (LRt) to designate new Load Re-opener Outputs.

Step 11 – Licence Implementation

Required modifications are made and implemented in ETOs licences.

Project Cancellation

Step 1 – Cancelled Project Template

ETOs submit to Ofgem the Template- Cancelled Project as set out in Appendix 2.

Step 2 – Ofgem's assessment

Ofgem reviews submission to determine if there are allowances that need to be recovered by the licensee.

Step 3 – Recovery of allowances

If the project has only received PCF, we would seek to recover any unused allowances and any inefficient PCF by direction through Special Condition 3.15 using the principles set out in the Price Control Deliverable Reporting Requirements and Methodology Document. If the project is in the delivery stage Ofgem will seek to recover any unused allowances and any inefficiently incurred spend to date by direction. Ofgem publishes a statutory consultation on modifications as required to Special Condition 3.18.

Material Project Changes

Applies when a project has significantly changed between Eligibility Assessment, Needs Case Assessment or Project Assessment.

Step 1 – Material Project Change Template

ETOs submit to Ofgem the Template - Material Project Changes as set out in Appendix 2.

Step 2 – Ofgem’s assessment

Ofgem reviews submission to determine the impact of the Material Project Change. Ofgem may determine:

- The preferred option is still in scope in relation to the original needs case, but that additional information may be required either at the Needs Case Assessment or Project Assessment; or
- The scope of the project has fundamentally changed to the point the preferred option is no longer an appropriate option in the interest of consumers.

Step 3 – Ofgem’s response

Ofgem will respond in writing to the licensee setting out:

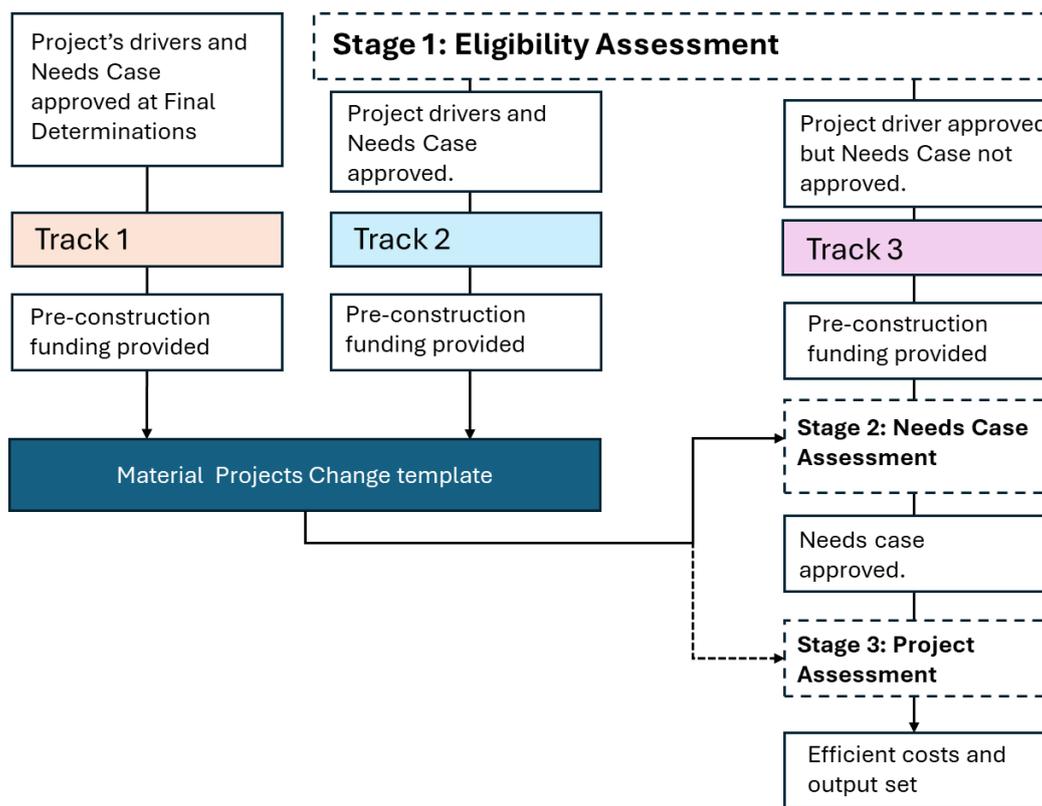
- (a) Whether the project is still in scope and any additional reporting requirements for either the Needs Case Assessment or Project Assessment;
- (b) If Ofgem has determined the preferred option is no longer in the interest of consumers, Ofgem may ask licensees to reapply through an Eligibility Letter;
- (c) If the load element of a project has fallen away, we may request ETOs to apply for the non-load element through Special Condition 3.10 Non-Load Re-opener (NLRt). In this instance the materiality threshold for Special Condition 3.10 may not apply; and
- (d) If necessary, Ofgem will issue a direction to adjust the allowance in Special Condition 3.15. PCF will also be reviewed at Project Assessment stage to determine any appropriate adjustments.

1.82 Below we have set the outcomes of a Material Project Change depending on the Assessment Track, Assessment Stage and the notional significance of the Material Project Change.

Track 1 and 2

1.83 Figure 3 shows what happens if a Material Project Change occurs before the Project Assessment stage: if there is a significant project change it will either be moved to Track 3 (where it will have to go through a Needs Case Assessment – particularly if there is a significant change to the proposed solution), or the ETO may have to submit a new Eligibility Letter. However, we may determine that the project is still required and the proposed solution is still efficient, and in that case the project would continue on the same track.

Figure 3: Material Project Change – Significant project change Track 1 or Track 2



Track 3

1.84 Figure 4 shows, for Track 3, what happens if a Material Project Change submission occurs before the Needs Case Assessment: we will either determine additional reporting requirements for the Needs Case Assessment stage or we will cancel the project, and the ETO will be eligible to recover any efficiently incurred costs. The ETO may submit a new Eligibility Letter (this may occur if the underlying project drivers completely fall away and the optioneering is no longer valid). However, we may determine that the project is still required and the proposed solution is still efficient, in this case the project would continue on the same track.

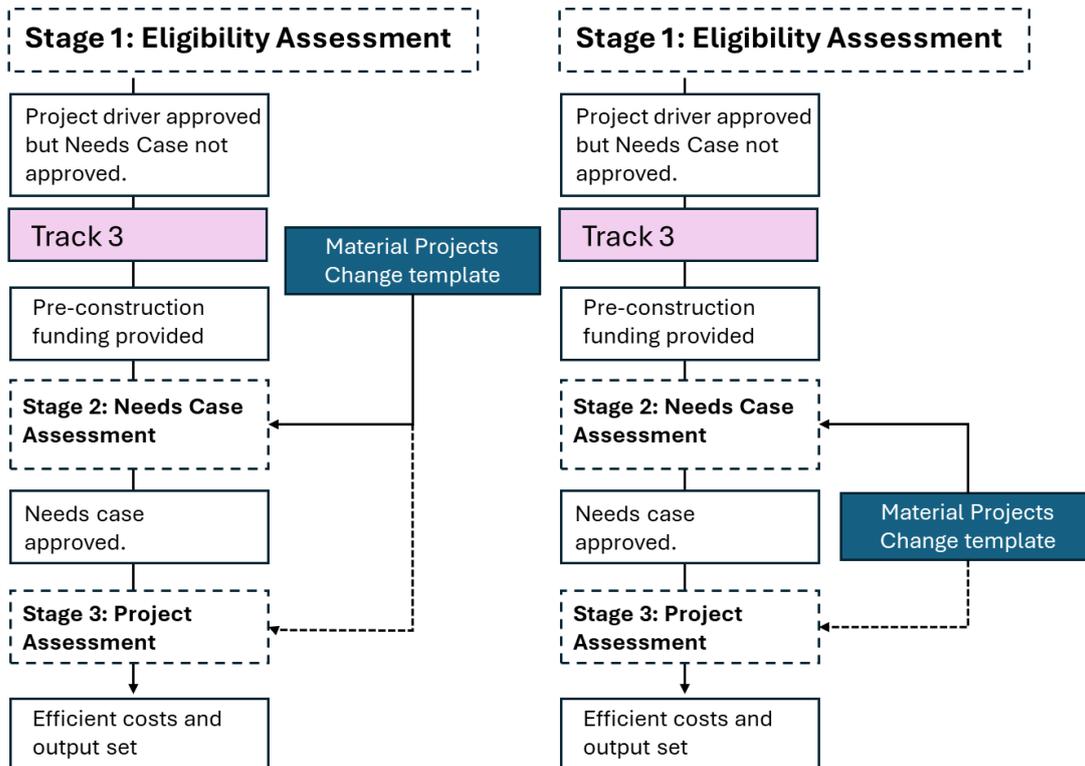
1.85 If a Material Project Change occurs before the Project Assessment; we will act in accordance with one of the following options:

- determine additional justification is required at the Project Assessment stage (where we still have confidence in the optioneering); or
- require resubmission of the Needs Case - particularly where the optioneering significantly changes (eg from PASE aligned to non-PASE aligned); or

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- in extremis, cancel the project where there is clear evidence of material consumer detriment in continuing to deliver the project. ETOs will be eligible to recover any efficiently incurred costs.

Figure 4: Material Project Change – Track 3



2. Eligibility Assessment (Stage 1)

Overview

- 2.1 For Load Re-opener projects submitted during RIIO-ET3, Ofgem begins with an Eligibility Assessment to confirm that the proposed solution meets Load Re-opener criteria, is sufficiently mature, and based on sound engineering principles that deliver consumer benefits.
- 2.2 This stage determines whether the project follows Track 2 or Track 3, guided by the clarity of project drivers and preferred engineering solutions in the Eligibility Letter and assessed against the PASE framework.
- 2.3 The Eligibility Letter submitted by ETOs provides essential early-stage information in a standard format, outlining project drivers, shortlisted options, indicative technical details, costs, timelines, interactions with other projects, and PCF needs. Its purpose is to enable Ofgem to confirm eligibility, assign the appropriate track, and decide whether the project can proceed via Track 2 without the need for separate Needs Case Assessment review, or requires a detailed Needs Case Assessment through Track 3.

ETO submission requirements

- 2.4 The Eligibility Letter template that ETOs must submit to Ofgem is set out in Appendix 2. This template includes structured reporting fields (eg RRP references, spend apportionment) that are not covered in this chapter.
- 2.5 Where a project is a PASE Variant Option or does not align with PASE, ETOs should follow the additional reporting requirements set out in Appendix 3. We recognise that the level of detail and robustness of evidence will vary depending on the stage of the project. Submissions should therefore provide evidence proportionate to the project's maturity.
- 2.6 We encourage ETOs to group submissions together and ETOs must provide a minimum of one month's notice in writing (via email) to Ofgem ahead of submissions. This will enable a faster Ofgem assessment. Notice of submissions should also be raised at the Load Board in advance.
- 2.7 Ofgem does not require ETOs to identify a single preferred engineering solution, or to submit a detailed CBA or WLCA at this stage. However, if an ETO is seeking approval of the needs case for a preferred option at Eligibility Assessment, referred to as 'Early Options Needs Case', and progression along Track 2, ETOs

must provide a high-level CBA and WLCA⁷ (particularly where the preferred engineering solution is a Variant PASE or non-PASE aligned option).

2.8 Where the purpose of the submission is to establish eligibility only, not to put forward a single preferred option or seek its needs case approval, Ofgem's assessment will focus on:

- confirming the network need the ETO is seeking to address;
- understanding the credible options under consideration; and
- reviewing indicative or average cost ranges associated with those options to enable us to set an appropriate PCF allowance.

2.9 This level of information is proportionate for Ofgem to determine that the project meets the criteria for the Load Re-opener mechanism and can progress.

2.10 Costs associated with activities already occurred before the submission of an Eligibility Letter, including costs associated with PCF activities, must be identified at the Eligibility Letter stage in order to be funded later on.

Ofgem's approach and outputs

2.11 As part of Ofgem's Eligibility Assessment, where we have determined the project is eligible for the Load Re-opener, Ofgem will determine whether the project proceeds under Track 2 or is assigned to Track 3.

2.12 Where required, Ofgem will initiate an SQ process and initiate bi-lateral engagement to clarify data that has been submitted in the Eligibility Letter.

2.13 Our assessment of an Eligibility Letter may include but is not limited to:

Confirming compliance with Load Re opener criteria

- Check that the project meets the licence definition. This includes verifying that forecast capital costs exceed the materiality threshold, the project is in whole or in part load-related, and it is excluded from the volume driver mechanism. For clarity – where our assessment determines that the forecast capital costs do not exceed the materiality threshold, we may direct the applicant to utilise the Load UIOLI, if the project meets the Load UIOLI eligibility criteria.

Technical need and timing

- Validate the need for investment and confirm optimal timing considering uncertainties (generation, demand, constraint costs).

⁷ High-level CBA: An indicative, early-stage comparison of options using simplified assumptions to demonstrate directional consumer value.

High-level WLCA: An early, indicative view of whole-life costs using broad assumptions to show whether design choices are directionally efficient over the asset's lifetime.

- Review delivery confidence and risk: We examine indicative timelines, planning assumptions, and risk mitigation strategies to ensure the project can be delivered as proposed.

Optioneering quality (where ETOs are applying for both eligibility and optioneering needs case)

- Check alignment with PASE Framework: determine whether the proposed solution is PASE-compliant and if not determine the appropriate track for review with reference to Appendix 3.
- Assess high-level needs case - review the clarity and strength of optioneering and the shortlist of options.
- Check if all technically feasible options and operational measures were considered.
- Assess the robustness of option shortlisting and justification for the proposed solution based on lifetime costs, optionality, deliverability, and community/environmental impact/benefits, drawing on the supporting evidence provided.

Economic case (where ETOs are applying for both eligibility and optioneering needs case)

- We will seek to confirm the preferred solution is in the interest of consumers, whilst taking account of community / environmental impact and benefits to economic growth.
- A review of high-level CBA and WLCA where these are provided, and we may undertake a light-touch validation of assumptions and inputs used in quantitative analysis.
- Ensure any cost-benefit methodology and sensitivity testing are appropriate.
- Ensure that estimation of costs is consistent across all options so they can be compared fairly.

Future Needs Case requirements

- Identify if any considerations require revisiting later in the Needs Case Assessment process based on evidence strength and quality.

Major Projects ODI-F

- Ofgem will assess the need to apply the Major Projects ODI-F as part of the Load Re-opener process.

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- Ofgem will assess, in line with the criteria set out in the ITA Guidance Document, whether an ITA is required for the project.

2.14 As part of the Eligibility Letter assessment outputs, Ofgem will provide project-specific direction on the further information expected at the Needs Case Assessment or Project Assessment stages. This may include, but not be limited to, clarifying the level of detail required for CBA, WLCA, cost breakdowns,

optioneering evidence, and any additional technical, planning or deliverability information needed to support later-stage reviews.

- 2.15 The purpose of this early steer is to ensure ETOs have clear visibility of the evidence requirements appropriate to the maturity of their project and to allow them to plan proportionate development activities ahead of submitting their Needs Case or Project Assessment. Ofgem's guidance will be tailored to each project, reflecting the availability of data, the complexity of the solution, and the specific uncertainties identified during the Eligibility Letter Assessment.
- 2.16 Regardless of the track assigned, if the project is deemed eligible for the Load Re-opener we will issue a direction to provide PCF following completion of the Eligibility Assessment as well as publishing a written update setting out:
- Our determination of whether the project is eligible to be assessed under the Load Re-opener, and if not whether there are alternative routes for funding and our rationale for any rejection;
 - Our determination on project Assessment Track;
 - Our decision or minded-to decision on whether the project will be subject to the Major Projects ODI-F;
 - Our decision or minded-to decision on whether a project will be monitored by an ITA; and
 - Where we have determined a project will require a Needs Case Assessment, we will set out any additional reporting requirements (in accordance with Appendix 3).
- 2.17 Where Ofgem applies the Major Projects ODI-F, we will undertake a statutory consultation under Special Condition 4.8 before applying the incentive.

3. Needs Case Assessment (Stage 2) – Track 3 only

Overview

- 3.1 The Needs Case Assessment is a critical stage in the Load Re-opener process for projects assigned to Track 3. This assessment determines the need for the project by understanding the economic benefits that the project provides for GB consumers and favoured technical solution that the ETO plans to take forward.
- 3.2 ETOs must demonstrate the chosen design is technically viable, cost-efficient over its lifetime, whilst giving due consideration to consumer, environmental and system issues. If the justification is insufficient, Ofgem may require revisions or reassign the project for further review before progressing to cost assessment.

ETO submission requirements

- 3.3 The ETO must submit the Needs Case Assessment to Ofgem using the ‘Needs Case (Engineering Justification Paper)’ template (see Appendix 2).
- 3.4 The Needs Case must be shown by a clear demonstration of the specific network need or constraint the project addresses, supported by robust data and analysis. This must comprise clearly identified investment drivers, including customer connections.
- 3.5 ETOs must engage with Ofgem and document any modifications to underlying assumptions or design elements that result from planning activities or stakeholder engagement between the Eligibility Assessment and the Needs Case Assessment.

Optioneering justification

- 3.6 At the Needs Case Assessment stage ETOs need to demonstrate that the preferred solution delivers greater long-term value for consumers than all credible alternatives by quantifying and comparing their monetised costs and benefits.
- 3.7 Detailed CBA and WLCA⁸ together provide assessment of whether a proposed solution is optimal from a consumer-perspective in both the short and long term.
- 3.8 ETOs are expected to submit a detailed CBA, in the format provided by Ofgem, that demonstrates relative economic value of credible alternatives by

⁸ Detailed CBA: A full, evidence-rich economic assessment with robust modelling, sensitivities and option-level justification to confirm the preferred solution delivers long-term consumer value.

Detailed WLCA: A comprehensive, evidence-rich assessment of lifetime costs—that includes but not limited to, build, operation, maintenance, replacement, carbon and extendibility—to confirm the selected design is the most efficient long-term solution.

quantifying monetised costs and benefits of the project to consumers. That may include (but is not limited to) constraint cost reductions and system efficiencies. We expect CBAs to include any sensitivity testing to ensure these conclusions remain robust under different scenarios.

- 3.9 We also expect ETOs to submit a WLCA that either complements or is fully integrated into the CBA, which examines the full lifetime cost implications of each option, including (but not limited to) construction, operation, maintenance, carbon impacts, replacement and future extendibility.
- 3.10 Taken together, these tools can demonstrate that the preferred solution delivers long-term value for consumers, avoids future inefficiencies or asset stranding, and reflects sound engineering and economic judgement. Further guidance is set out in Appendix 3.
- 3.11 For consistency across CBA and WLCA, we expect:
- WLCA to form the full lifetime cost profile that inputs into the CBA – that may include but is not limited to: CAPEX (initial build), operational and maintenance costs, extendibility or strategic investment implications.
 - Non-monetisable WLCA findings (eg qualitative extendibility or operability impacts, potential regional growth) must be explicitly set out and explained.
 - Scenario modelling must vary WLCA cost inputs as well as system benefits.
 - Anticipatory or strategic investment must be justified through WLCA-supported long-term value arguments.
 - Where relevant ETOs should identify all non-monetised benefits, setting out their technical relevance to system performance, operability or long-term consumer value, and ensure they are recorded alongside monetised CBA outputs to provide a complete assessment of option merit.
 - For projects already subject to rigorous NESO-led analysis, customer-driven connections, or reinforcements tied directly to agreed connection needs, Ofgem expects a proportionate CBA focused on comparing the relative whole-life and upfront capital costs of the credible engineering options, rather than replicating the NESO's system-wide modelling. Where some options within a project deliver additional benefits above and beyond delivering the NESO objectives, these should be included in the CBA as well as WLCA.

Ofgem's approach and outputs

3.12 Our Needs Case Assessment will include but is not limited to:

Confirm the ongoing driver for the project

- We review whether the project remains justified and continues to address a clearly defined network need. This includes checking alignment with any NESO system planning documents such as the NOA, Future Energy Pathways, CSNP, and Holistic Network Design.

Optioneering and preferred solution

- We examine the ETOs' optioneering process in detail. ETOs must demonstrate that all credible alternatives have been considered and provide a clear rationale for selecting the preferred option.
- We expect evidence of structured evaluation across cost, deliverability, community / environmental impact, and future-proofing.

Technical engineering assessment

- We will scrutinise optioneering around design choice to ensure that:
 - (a) the outputs and project specification being delivered are optimal and in consumers' interests; and
 - (b) any concerns around whether the network solution being progressed represents the optimal solution are raised as early as possible in the project's development to limit the scope for delays (project maturity does not limit Ofgem's ability to raise concerns where an alternative solution may deliver better long-term consumer value. Where concerns arise or are identified by the ETO or Ofgem, ETOs must provide proportionate evidence on the implications of any change, including cost and deliverability impacts).
- For substations, indicative site-extension costs should be reflected in the optioneering, where this is an option.

Evaluate consumer value and cost-benefit analysis

- We require robust cost-benefit analysis, including sensitivity testing, to confirm that the proposed solution delivers long-term value for consumers.
- This analysis should demonstrate efficiency under different scenarios and justify any anticipatory investment.

Review any changes since eligibility assessment

- We check for material changes in scope, costs, or design assumptions since the Eligibility Assessment. ETOs must explain and justify any changes, including their impact on delivery timelines and risk profile.

Major Projects ODI-F

- Ofgem will assess the need to apply the Major Projects ODI-F as part of the Load Re-opener process.

Independent Technical Adviser (ITA)

Guidance Load Re-opener Guidance and Submission Requirements Document

- Ofgem will assess, in line with the criteria set out in the ITA Guidance Document, whether an ITA is required for the project.

3.13 For projects that require planning consent, we recognise that the most appropriate time to assess the Needs Case is when project design assumptions are mature, eg during later application development or after the planning application has been submitted. However, planning consent does not need to be secured before submitting the Needs Case.

3.14 Where projects have significantly changed since our Eligibility Assessment, ETOs must notify Ofgem as soon as possible by submitting a Template – Material Project Changes as set out in Appendix 2. The Load Board will act as the early, strategic checkpoint for material changes—ETOs should report the change via the Load Board dashboard template so Ofgem can give senior steer and log actions—while the formal assessment, evidencing and any funding or licence updates still occur through the Load Re-opener process with a Material Change notification submitted to Ofgem outside the Load Board.

3.15 Following our Needs Case Assessment, Ofgem will:

- Confirm whether the Needs Case and optioneering of the preferred solution is:
 - a) **Justified** – No material concerns raised; the project may proceed to Project Assessment to have efficient costs determined.
 - b) **Partially Justified** – Issues must be addressed through an Ofgem-directed process before or during Project Assessment.
The Authority may either:
 - i. permit progression once resolved; or
 - ii. allow progression with unresolved issues that may be subject to disallowance.Ofgem must be satisfied in making any direction that, on the balance of probabilities, the proposed solution is correct and only limited uncertainties remain.
 - c) **Not Justified** – Optioneering solution is not justified and there are significant concerns that must be resolved. In such cases the ETO must either re-submit its Needs Case or, if it is a project which cannot be delayed, progress to Project Assessment on the understanding that it may be subject to cost disallowances which reflect the consumer value lost by its sub-optimal optioneering choices.

3.16 Where Ofgem’s review determines the Needs Case is ‘Partially Justified’ or ‘Not Justified’, Ofgem may request a resubmission of the Needs Case and undertake another Needs Case Assessment. Where the information required is specific,

Ofgem may request this in writing, with the ETO expected to submit the additional information for a specified date.

- 3.17 Ofgem considers that all major reinforcement projects that are greater than £300m, given the scale, materiality, and consumer impact, regardless of whether they align with PASE Primary or Variant Options, will require a Needs Case Assessment. However, where a project remains largely aligned with PASE principles between the Eligibility Letter Submission and Needs Case Assessment, we do not expect to undertake a detailed or intensive Needs Case review.
- 3.18 Instead, the assessment will be proportionate, focusing on validating that the rationale for the selected option remains sound and that no material developments have changed the underlying justification. To ensure robust consumer protection, Ofgem retains flexibility to undertake a more detailed Needs Case Assessment where new evidence, emerging uncertainties, or deviations from initial assumptions warrant deeper scrutiny, even for projects that remain broadly PASE-aligned.
- 3.19 Where Ofgem determines that a project is eligible for a Major Projects ODI-F, we will undertake a statutory consultation under Special Condition 4.8 before applying the incentive.

4. Project Assessment (Stage 3)

Overview

- 4.1 This is the final stage of the Load Re-opener process, where Ofgem determines the efficient cost allowance for delivering the project. The review focuses on the ETO's readiness to proceed and the efficiency of forecast costs, including construction, risk contingencies, and delivery plans.
- 4.2 In order for Ofgem to have sufficient information to effectively undertake a Project Assessment, ETOs should submit once the following conditions are met:
 - The ETO has confidence in its cost estimates.
 - The ETO has received final procurement offers for the main contracts, with remaining packages progressing in line with the approved procurement strategy.⁹
- 4.3 Where some costs remain uncertain these may be provided as estimates with clear narrative and justification for the estimations.
- 4.4 The ETO must engage with Ofgem in the months leading up to its Project Assessment submission to help ensure that its submission will enable Ofgem to conduct an effective assessment.
- 4.5 The ETO must provide a single, comprehensive submission demonstrating readiness to deliver and the efficiency of proposed costs. The submission should include, where relevant and appropriate:
 - A robust, well-justified cost estimate that is reflective of project maturity and cost firmness; supported by engineering designs, procurement outcomes, and risk assessments.
 - Detailed delivery plans, including strategy and risk management – this includes a robust P50 and expected delivery date including the methodology used.
 - A complete cost breakdown in the spreadsheet form provided by Ofgem, with summary and clear cost breakdown for asset type¹⁰, linked to supporting calculations and assumptions.
 - All referenced documents, including contracts, quotes, studies, and original source data.
- 4.6 ETOs should engage with Ofgem and document any modifications to underlying assumptions or design elements that result from consenting/planning activities

⁹ This is not an implication or requirement that contracts should have been signed at this stage, rather an expectation that negotiations would have reached final stages.

¹⁰ Mapped to the RIIO-ET3 Asset Possibilities list set out in the RIIO-ET3 BPDT Guidance and Regulatory Instruction and Guidance (RIGS).

or stakeholder engagement between the Eligibility Assessment, or the Needs Case Assessment, and the Project Assessment stage.

ETO submission requirements

- 4.7 The Project Assessment template that ETOs must submit to Ofgem is set out in Appendix 2.
- 4.8 For cost related data, the ETO must provide a detailed cost breakdown in the spreadsheet provided by Ofgem. The main spreadsheet must include a summary of total construction costs with breakdown for each asset type (eg overhead line). These costs should link to supporting tabs showing calculations, assumptions, units, price bases, and time profiles. Supporting information may also be provided referencing contract terms, quotes, studies, or other evidence. Contractor source data should also be provided to Ofgem.
- 4.9 ETOs must ensure any changes to project assumptions, design parameters or technical scope that arise from planning activities, consenting processes, or stakeholder engagement are clearly documented and reflected in their submissions. This includes explaining what has changed, why the change has occurred, and how it affects the needs case, optioneering, costs, delivery strategy, or risk profile.
- 4.10 Within the main cost spreadsheet, a clear indication of the ‘firmness’ of each cost must be provided. Our classification for this ‘firmness’ is set out in Table 1 below.

Table 1: Firmness of cost submissions

	Classification	Description	Supporting documentation required
1	Fixed	(i) The cost has been incurred, is not subject to change and has supporting documentation matching the amount; or (ii) Cost is fixed but not yet committed to by the ETO.	Contract/bill/tender with supporting documentation of payment made. Fully auditable if needed.
2	Agreed, but re-measurable	The cost has been agreed or estimated but is subject to change according to a clear and agreed variation process. Changes only driven by unforeseeable circumstances.	Contract/bill with supporting documentation of payment made/to be made. Fully auditable if needed.
3	Agreed, but will be re-measured based on known future	The cost has been agreed or estimated but will be subject to change due to clarifying the scope of works or due to additional surveys and	Contract/bill with supporting documentation of payment made/to be made. Rates auditable, volumes subject to change based

	Classification	Description	Supporting documentation required
	information received	assessments being undertaken. As above, changes should follow a clear variation process.	on quantifiable and foreseeable factors.
4	Agreed, but indexed	The cost has been agreed or estimated but will be subject to indexation / price adjustment mechanism(s) where change is foreseen but there is no change to project scope.	Contract/bill with supporting documentation of payment made/to be made. Rates auditable, volumes subject to change based on quantifiable and foreseeable factors.
5	Estimated	Cost estimated based on assessments and actual surveys and using experience and examples from other projects.	Spreadsheet with the calculations (methodology), assumptions and evidence base. Emails/minutes of meetings with specific mention of the variables that have been used in calculating these estimates, the person and company providing the calculations and information. List of surveys done as well as documentation of the surveys.
6	Early estimate	Costs estimated through modelling cost ranges from different projects and past experience.	Spreadsheet with the calculations (methodology), assumptions and evidence base. Emails/minutes of meetings with specific mention of the variables that have been used in calculating these estimates, the person and company providing the calculations and information. List of surveys to be performed to increase the confidence of the cost estimates.

Pre-Construction Funding (PCF)

4.11 Ofgem recognises that PCF requirements may change as a project develops.

Additional efficiently incurred pre-construction funding can be recovered by the ETO where justified.

4.12 In line with Special Condition 3.15, any further PCF required beyond that set at the Eligibility Assessment will be considered as part of:

- Any PCF Reopener submissions by the TOs.
- Ofgem’s ex post review during the Project Assessment stage (if submitted before the end of RIIO-ET3) or at RIIO-ET3 close-out (if PA not submitted by the end of T3).

- 4.13 Where a Project Assessment is submitted before planning approval, this reconciliation will instead be undertaken at project close-out.
- 4.14 Ofgem also recognises that PCF activities may occur before the submission of an Eligibility Letter. Any costs associated with PCF activities must be identified at both the Eligibility Letter and Project Assessment stages. Ofgem will assess any efficiently incurred expenditure to ensure there is no double funding of activities.

Material Project Changes

- 4.15 As set out in paragraph 1.71 of this document, if a project incurs a Material Project Change, ETOs may be required to submit updated CBA and WLCA and sensitivity analysis.
- 4.16 Ofgem will direct whether the updates should be included as part of the Material Project Changes submission or as part of supporting evidence Project Assessment stage.

Ofgem's approach and outputs

- 4.17 Our Project Assessment includes but is not limited to:

Communication and engagement

- Engagement between the ETO and Ofgem will take place during the Project Assessment process where needed to support understanding of the rationale behind submitted costs and the projects scheduled activities.

Initial review

- An initial review of the Project Assessment submission to verify that the necessary information has been provided by the ETO. If we believe that the ETO has not provided all the information necessary for us to carry out our assessment it may be necessary for the licensee to resubmit the application in a subsequent window.
- Ofgem may issue SQs, but these will be for clarification purposes only and not to fill gaps or address deficiencies in the ETO's original application.

Full cost assessment

- Once we are broadly satisfied that the ETO's submission includes the necessary information, we will undertake a thorough review of the project's costs, alongside its technical characteristics. This will include comparing the project's costs with other projects.
- 4.18 As part of our assessment, we aim to undertake benchmarking analysis of the project's costs. We would expect to consider several issues, including but not limited to:

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- Whether there is sufficient detail on the technical design to enable benchmarking, and that any optional capabilities included in the final proposal represent long-term value for money.
 - The robustness of the ETO's process for procurement and selection, and whether this process has been efficiently applied and could be expected to lead to an efficient market outcome.
 - The efficiency of the proposed costs, considering the conclusions from the previous two bullet points, and any additional detailed cost assessment including benchmarking of specific elements where comparable data is available eg any relevant current market information.
 - The evaluation of risks, and the appropriateness of the proposed risk management strategy including the allocation of risks and the associated costs.
 - The appropriateness of the construction programme and progress made towards being ready to proceed in the proposed timescales.
- 4.19 Our assessment will include detailed benchmarking of the project's costs, as an input to guide determination of efficient allowances. We will compare the ETO's submitted costs with similar projects, considering technical characteristics. Costs may be broken down by asset (eg onshore cable) to enable granular analysis.
- 4.20 Benchmarking helps identify areas where costs appear higher than expected. It is a guide, not an absolute determinant of allowable costs. Where concerns arise, we would conduct further analysis to assess whether costs are economic and efficient. ETOs can justify differences from industry averages, however without sufficient evidence, we will use our cost benchmarking exercise. This will use the cost of the selected option compared against our efficient unit rates as measured throughout ET3 and through wider industry data, to inform our view of efficient costs.
- 4.21 Beyond asset-level benchmarking, we may also compare other elements of the submission - such as resource costs and risk budgets - against historical datasets. We would perform both high-level and detailed comparisons.
- 4.22 Our assessment may consider which wider load mechanisms (Major Projects ODI-F, ITA) should be implemented on the project.
- 4.23 After completing our initial review of the project's submission, and once we are satisfied that we have all the information required to undertake our assessment, we will carry out the Project Assessment and publish a minded-to decision for consultation. Following consideration of consultation responses, we will publish the Authority's final Project Assessment decision. Any new Load Re-opener

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outputs, delivery dates, associated allowances and applicable mechanisms will be specified in the relevant licence conditions.

- 4.24 For clarity, Ofgem will fund only the efficient level of costs, irrespective of the submitted total or the materiality threshold for re-opener eligibility. Even if a project has been accepted into the Load Re-opener, Ofgem may set the final allowance equal to or below £40m as a result of our assessment of efficient costs.

5. Monitoring of Delivery

During construction

Role of the ETO

- 5.1 ETOs are required through Standard Condition B15 (Regulatory Instructions and Guidance) to report annually, through Regulatory reporting Packs (RRPs), during the construction phase on their expenditure and progress in delivery of their Load Re-opener outputs. ETOs must also report progress on projects in their delivery pipeline that are expected to be submitted through the Load Re-opener.
- 5.2 As part of this annual reporting the ETO must provide an update on the status of the project delivery programme against the project plan. This must include an explanation of divergences in expenditure or project milestones, or concerns that the ETO has about delivery progress.
- 5.3 An ETO may seek an adjustment to the allowed expenditure, Load Re-opener Output or delivery date through the provisions in Part F (Cost and Output Adjusting Event (COAE)) of Special Condition 3.18, although we expect such applications to be rare. More information on the COAE process is set out below.

Role of Ofgem

- 5.4 Ofgem will monitor progress against deliverables based on information provided in the ETO's annual regulatory report, and if applicable, any reporting regarding project delivery from the ITA.
- 5.5 Where appropriate, we will consider any COAE requests made by an ETO and discharge our obligations under the licence when determining whether an event meets the criteria for a COAE and whether any associated adjustments to outputs, delivery dates or allowances are justified.

Costs and Output Adjusting Event (COAE)

- 5.6 One or more events may be categorised as a COAE (as determined strictly in line with the provisions of Part F of Special Condition 3.18), where the following conditions are present:
 - an Extreme Weather Event¹¹;
 - the imposition of additional terms or conditions of any statutory consent, approval or permission (including but not limited to planning consent);
 - unforeseen ground or sea-bed conditions; and

¹¹ As defined in the ETOs RIIO-3 licences.

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- for the purposes of a particular Load Re-opener output, any event that the Authority directs is a Cost and Output Adjusting Event in the Project Assessment Direction.
- 5.7 Where there has been a COAE, an ETO may apply to Ofgem to amend the Load Re-opener output, delivery date or allowance in accordance with Part F: Cost And Output Adjusting Event of Special Condition 3.18.
- 5.8 During the Project Assessment stage, we may consider the value of the expenditure impact threshold, including whether to make any changes to the standard 10% threshold for the proposed Load Re-opener output.
- 5.9 Unless we direct otherwise, to make an application under the COAE provisions (as set out in Part F of Special Condition 3.18), the ETO must make the application:
- as soon as is reasonably practicable after the COAE has occurred; and
 - not later than before the end of the period of three months beginning with the delivery date for the Load Re-opener Outputs.
- 5.10 Additionally, the submission must:
- be made in writing;
 - include detailed supporting evidence that a COAE meeting the requirements set out in paragraph 5.6 has occurred;
 - set out any amendments requested to the Load Re-opener Output, the delivery date or associated allowances in Appendix 1 of Special Condition 3.18;
 - explain the basis of the calculation for any proposed adjustment to the allowances in Appendix 1 of Special Condition 3.18 which must be designed to keep, so far as is reasonably practicable, the financial position and performance of the licensee the same as if the Cost And Output Adjusting Event had not occurred;
 - include a statement from a technical adviser who is external to and independent from the licensee, whether, considered in the context of the value of the Load Re-opener Output, the proposed adjustments to the Load Re-opener Output, the delivery date or associated allowances fairly reflect the effects of the Cost And Output Adjusting Event;
 - include an update to the submission narrative provided in the Project Assessment submission;
 - include an updated main cost spreadsheet;
 - include updated supporting cost spreadsheets, where relevant;
 - include a detailed technical overview of any changes to the project's technical scope;
 - include an updated risk register; and
 - detail updates to delivery strategy and risk management.

Re-profiling

- 5.11 In accordance with the Price Control Deliverable Guidance and Submission Requirement Document, if a project is delivered late we may re-profile the allowances provided to a network company in its licence to reflect actual expenditure profile, to avoid the network company benefitting from delayed expenditure.
- 5.12 This will be done by retrospectively adjusting ETO allowances in the licence and Price Control Financial Model (PCFM), through licence modification, to match the actual expenditure profile that was incurred in delivery of the project.

Delivery

- 5.13 In accordance with the Price Control Deliverable Guidance and Submission Requirement Document, once the Load Re-Opener output has been commissioned, the ETO must formally confirm delivery to Ofgem and provide supporting evidence to verify that the output has been achieved.
- 5.14 We will review the ETO's delivery of the Load Re-opener output. If an ETO misses the delivery date, it must provide an explanation and any mitigation actions to minimise further delays.
- 5.15 ETOs remain fully responsible for their actions and those of any contractors, as they are best placed to manage these risks. This ensures accountability and incentivises careful selection and oversight of third parties.

Appendix 1 -PASE Framework

Introduction

- A1.1 PASE is 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 in capacity for future network expansion.
- A1.2 PASE will be used by Ofgem to quickly and consistently assess transmission reinforcement proposals in the Eligibility Assessment stage of the Load Re-opener process by relying on pre-approved engineering designs to reduce regulatory burden while still allowing ETOs to justify deviations from these designs and technology types.
- A1.3 The PASE framework does not specify how a licensee should undertake optioneering or project development. Projects which do not align with PASE will not be considered inherently uneconomic or inefficient but will be reviewed on their own merits and project specific factors.

Environmental Considerations

- A1.4 PASE does not take into consideration the three elements set out below:
- Expenditure on Biodiversity Net Gain (BNG).
 - Expenditure on Visual Amenity (VA).
 - Insulation and Interruption Gas (IIG) selection.
- A1.5 The aspects above depend heavily on project-specific environmental, planning, and engineering considerations that sit outside the standardised PASE design envelope. For these elements, Ofgem will not apply PASE but will instead review and determine the efficient cost at the Project Assessment stage, based on the evidence the ETO provides including statutory requirements, environmental constraints, design choices, and associated cost drivers.
- A1.6 For BNG, we will assess these costs at the Project Assessment stage regardless of the approach chosen by licensee. We recognise that items that are in scope are often (but not always) mandatory and would anticipate licensee providing cost breakdowns and evidence being provided to justify costs.
- A1.7 With regard to VA, PASE accepts the costs associated with VA where economic and efficient and in relation to the project presented. We recognise that these works are bespoke to the site/project in question and may be (but are not always) mandatory. Where licensees are proposing VA measures, we expect costs to be provided for these works at Project Assessment. Specifically for VA we recognise that for some works, most often major connections, there are often other customer works associated with the connections and so we will be

cognisant of the VA impacts of the associated connecting party alongside that reported by the ETO.

- A1.8 For IIG selection, we remain supportive of licensees avoiding the use of SF₆ where possible and support the use of alternatives. Where there are economic and efficient costs for delivering alternatives, we will consider them at Project Assessment. Where licensees are considering the use of SF₆, notably in AIS designs, we encourage licensees to consider the spacing requirements of equipment to enable either alternative F-Gases¹² or Vacuum¹³ interrupters to replace the SF₆ assets ahead of 2050. Where licensees can evidence costs attributable to additional spacing, we will consider them at Project Assessment. While we maintain that licensees should consider alternatives and we recognise that for certain specific engineering requirements, SF₆ may be required.

Ratings Requirements

- A1.9 PASE sets expectations for construction voltages, however we anticipate that licensees may choose to operate the equipment at lower voltages than designed. For example, 220kV may be operated at 132kV, or 400kV may be operated at 275kV until the wider system need arises for the operational voltage change. In this approach we recognise that there are some assets which are voltage specific and so there may be future costs in the uprating of this equipment. Where licensees can operate dual rated equipment, we will consider the efficient costs of these assets at PA.

Innovation

- A1.10 We continue to welcome innovative solutions being used in network build and interventions. PASE seeks to minimise limitations to innovative solutions by detailing options which are of a sufficiently high level to enable innovations within the scope of PASE solutions.

- 5.17 Where a licensee proposes an innovative solution which is not PASE compliant; and is not proven or does not have a history of being deployed through the price control via existing innovation funding mechanisms, we expect that the Track 3 route will be most applicable for these types of investment.

PASE Linear Builds/Interventions

- A1.11 The table below provides the PASE framework for linear assets:

¹²Fluorinated Gas Mixtures (F-Gas Alternatives) - g³ (GE/3M), C4-FN, and C5-FK blends mimic SF₆'s properties but with GWPs < 2% of SF₆.

¹³ Vacuum Interrupters + Clean Air vacuum interrupters with clean air insulation, achieving zero F-gases and zero GWP with performance matching SF₆ breakers.

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Linear Builds/ Interventions	PASE	Description	Evidence Required if used
Reconductoring	Primary Option	Highest rated conductors shall be used for the tower/pole type. Fittings will be to the highest voltage permissible to the tower/pole design	N/A
New Circuit	Primary Option	Double Circuit Overhead Line (Towers or Pylons) – May include minor sections of cable for Site of Special Scientific Interest (SSSI), National Landscapes, or dense urban areas. Highest rated conductors available shall be used. Designed to 400kV (or higher) or 132kV.	N/A
New Circuit	Variant Option	Double Circuit Overhead Line (Towers or Pylons) – May include minor sections of cable for SSSI, National Landscapes, or dense urban areas. Highest rated conductors available shall be used. Designed to 220kV (or higher).	If there is clear evidence that ahead of 2050 substation usage will be at, or greater than, 85% of the maximum 132kV ratings.
New Circuit	Variant Option	220kV OR 132kV Pole Route.	For circuits not interactive with boundary circuits directly
New Circuit	Variant Option	Cable Route Stand alone.	That the route (but for cable sealing ends) is in its entirety in an SSSI, National Landscape, constrained by heritage sites or

Linear Builds/ Interventions	PASE	Description	Evidence Required if used
			dense urban environment OR That all cable costs funded by the connecting customer.
Other	Primary Option	FACTs	Where NESO has clarified need.

PASE Non-Linear Builds/Interventions

A1.12 The table below provides the PASE framework for Non-Linear assets:

Non Linear Builds / Interventions	PASE	Description	Criteria for Variant Option where supporting evidence will be required
New Substation	Primary Option	Outdoor Double Bus Bar (DBB) AIS 400kV, 220kV or 132kV with double circuit turn-in capability	N/A
New Substation	Variant Option	Indoor AIS DBB 400kV, 220kV or 132kV with double circuit turn-in capability	IF used in high pollution areas (Class V insulation requirements) Design must show future extendibility.
New Substation	Variant Option	Single Switch Mesh AIS at 132kV or 400kV	Design must show future extendibility into Double Bus AIS. IF design can be shown to not be on boundary critical circuit.
New Substation	Variant Option	Indoor Double Bus GIS Substation at 400kV or 132kV	IF required in dense urban area and where there is no existing AIS of comparable footprint AND where there is no major connection adjacent.

Non Linear Builds / Interventions	PASE	Description	Criteria for Variant Option where supporting evidence will be required
			IF required at altitudes over 400m from sea level and/or relative close proximity to a coast (for ETO to demonstrate).
New Substation	Variant Option	Single Switch Mesh AIS at 220kV	Design must show future extendibility into Double Bus AIS. IF design can be shown to not be on boundary critical circuit. IF there is clear evidence that ahead of 2050 substation usage will be at, or greater than, 85% of the maximum 132kV ratings.
New Substation	Variant Option	Indoor Double Bus GIS Substation at 220kV	IF required in dense urban area and where there is no existing AIS of comparable footprint AND where there is no major connection adjacent. IF required at altitudes over 400m from sea level. IF there is clear evidence that ahead of 2050 substation usage will be at, or greater than, 85% of the maximum 132kV ratings.
Substation Extension	Variant Option	Atypical Extensions (including Strategic Investment) to Double Bus AIS	If extension costs are atypical ¹⁴ for connection works, but go above atypical for strategic investment purposes.
Substation Extension	Variant Option	Extensions to SF6 free GIS	If extension costs are atypical for connection works, but go above

¹⁴ Atypical costs are defined as cost variances exceeding £14.85m or more than 25% of total project cost, whichever is higher.

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Non Linear Builds / Interventions	PASE	Description	Criteria for Variant Option where supporting evidence will be required
		Double Bus Bar Substations	atypical for strategic investment purposes.
Other	Primary Option	NESO Approved Pathfinders	Unless costs rise above NESO tendered costs.
Other	Primary Option	NESO Operability Requests	Where NESO has provided instructions to intervene on the network.
Other	Primary Option	NESO OTS/ANM Schemes	Where NESO has provided instructions to intervene on the network.
Other	Primary Option	FACTs	<p>Where NESO has clarified need.</p> <p>AND</p> <p>Where installation does not prevent future extendibility of the connecting site.</p> <p>AND</p> <p>Is not located on satellite substation connections.</p>

Appendix 2 – Templates for Load Re-opener Submissions

Templates Overview

- A2.1 There are three core templates for each Load Re-opener stage and two templates for cancelled projects or those where there are material changes. Licensees will use the Eligibility Letter template as a minimum when triggering a Load Re-opener based scheme.
- A2.2 We expect licensees to submit, at a minimum, the Eligibility Letter ahead of planning applications (where required) or before the completion of detailed technical design works. This will ensure we have sufficient time to provide our views.
- A2.3 For the Stage 2 Needs Case Submission we have adapted our templates from the ET3 Major Projects EJP business plan guidance.¹⁵
- A2.4 We accept that schemes may be cancelled, but welcome licensees submitting the Eligibility Letter ahead of signed connection agreements. Where projects are terminated licensee will submit a Template – Cancelled Projects.
- A2.5 Templates are intended to minimise the regulatory burden on licensees with regards to the length of submissions. We have included page counts in certain sections. If ETOs require more pages they must justify why by emailing Ofgem before the submission of an Eligibility Letter, Needs Case or a Project Assessment.
- A2.6 All submissions should be both in PDF and MS Word format.

Stage 1 Template – Eligibility Letter

1. Reference Table

Project specific reference table used throughout project life cycle – Maximum 2 pages of A4. ETOs must also include a document catalogue, providing a list and brief description of all documents and files submitted as part of the application, to ensure clarity and traceability of the evidence provided.

¹⁵ https://www.ofgem.gov.uk/sites/default/files/2024-09/RIIO-3_Business_Plan_Guidance_Annex_Part_One.zip

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Topic	Description
Name of Scheme	Working title of the Scheme. <i>This will be a meaningful name that relates to the investment proposed and is aligned with the name used in pre-submission engagement, this should be consistent with Licensee Pipeline Logs.</i>
RRP References	Reference to any Regulatory Reporting Packs as part as part of on-going progress reporting through the Load pipeline.
BPDT/Scheme Reference Number	This will include the licensees own referencing system.
Load Board Reference	Reference to project set out in the Load Board and any relevant discussions on the project. (include date or minutes from the relevant Load Board meeting)
Investment Driver	<i>tCSNP2 related, Connections, Reinforcement, Enabling works for CSNP project etc.</i>
PASE alignment	Set out whether project is PASE Primary, Variant or Non-PASE.
Outputs	Please list all outputs to be delivered.
Cost	This is the total cost of the preferred option(s). <i>This includes all cross-period funding requirements.</i>
Delivery Year	The year the scheme will be completed. <i>If this is a staged programmed with multiple ACL dates, please provide the list and associated circuits which are commissioned.</i>
Extension cost (applicable only to substations)	Set out for the £m costs for single switch mesh to DDB and 4, 8, 12 or any additional bays. Where exact option(s) and costs are uncertain, please set this out. Costs may be high level estimates reflecting the maturity of the scheme at the stage of Eligibility Assessment.
Applicable Reporting Tables	Please list all applicable tables which have this scheme, including volumes and costs.
Historical Funding interactions	Historical funding should only be reported where the ETO has previously received funding for the same underlying need (eg connection of the same generator, or the same NESO-identified

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Topic	Description
	<p>reinforcement). Funding for unrelated works or broader portfolio activities does not need to be included.</p> <p>Please detail all funding provided for works in RIIO ET1 and/or RIIO ET2, RIIO ET3 (either as direct named assets, or as portfolios).</p> <p>Please highlight if there have been any deferrals of works.</p> <p>Please highlight any Early Asset Write Offs (EAWO) associated with these works.</p>
Interactive Projects	<p>Interactive Projects should include only those schemes that have a direct and material interaction with the proposed investment—for example, projects whose scope, timing, configuration, or delivery is dependent on, or affected by, this scheme (such as ASTIs, other Load Re-opener submissions, or overlapping reinforcements).</p> <p>Please detail any projects which are directly interactive with this investment. This includes existing and future ASTIs or other Load Re-opener Projects.</p> <p>Where applicable include any project references from the BDPT.</p>

2. Project Summary Table

(Maximum 3 pages of A4)

Title Section	Descriptions
Name of Scheme	Working title of the Scheme. <i>This will be a meaningful name that relates to the investment proposed and is aligned with the name used in pre-submission engagement.</i>
Investment Driver	<p>Describe the load driver for this project eg connections (TOCA/TORI) tCSNP, Connections, Reinforcement, etc.</p> <p>Set out any links to NESO driven projects (eg CP2030, tCSNP2) - is project designated as required for Clean Power 2030 and does project have a gate 2 offer from the NESO following the conclusion of the connections reform process?</p> <p>If the project is related to demand projects, set out any links to the Connections Accelerator Service, if relevant.</p>

Title Section	Descriptions
	Set out what type of work this is - wider works or enabling works etc., and set out whether there are any shared non-load drivers.
Solution(s)	<i>Brief overview of the solution(s) proposed by ETO.</i> <i>This will be a short description of the solution(s) proposed.</i>
PASE Alignment	Is project option(s) PASE aligned? Yes/No If project option(s) is PASE aligned, is it a Primary or Variant? Primary/Variant If project is not PASE aligned provide brief justification and explanation
Spend Apportionment (£m)	
RIIO- ET2	
RIIO-ET3	
RIIO-ET4	
Beyond RIIO-ET4 (>2035/36)	

3. Core Narrative

(Maximum 50 pages of A4 including appendices. Maximum 10 pages of A4 for each annex)

Section	Requirement	Description	Quantitative/ Qualitative
Needs Case	Eligibility	Statements setting out why the proposed project meets the eligibility criteria for the Load Re-opener.	Qualitative – setting out how the project aligns with the Load Re-opener eligibility criteria.
Needs Case	Preferred project track	State whether the proposed track for the project is Track 2 or Track 3 and state the reasons why.	Qualitative – narrative justification based on maturity and PASE alignment.
Needs Case	Outputs and delivery year	Set out the proposed outputs for a Price	Quantitative / Qualitative – description of the outputs and proposed delivery years. Include

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Section	Requirement	Description	Quantitative/ Qualitative
		Control Deliverable and the delivery year.	explanation of how the delivery year was calculated.
Needs Case	Justification of project need	<p>Summary of the project driver: focusing on the underlying network requirements and justification for intervention. This may include:</p> <p>Connections: explanation of any new generation or demand connection the project will enable.</p> <p>System context: Identify the network boundary/constraint, provide current and forecast power flows, thermal ratings, NETS SQSS compliance, and any operability issues (fault level, voltage stability).</p> <p>Investment Drivers: Quantify generation/ demand growth using FES and NOA/CSNP, include contracted volumes, termination risk, and NESO recommendations.</p> <p>Counterfactuals: summarise “do nothing” and “do minimum” scenarios with indicative cost-benefit comparisons.</p>	<p>Quantitative / Qualitative.</p> <p>Licensees may provide quantified data to support project drivers – for example connection TOCA, NESO reporting, power system analysis etc.</p> <p>Specify if project is of strategic importance (eg this can be a NESO identified project for boundary uplift).</p> <p>Qualitative – high-level justification of network need and timing.</p> <p>Evidence may also include (where appropriate and in agreement with NESO), high-level power system study outputs and NESO modelling if available (for example metrics such as MW transfer uplift, constraint savings, and reliability improvements (eg loss of load).</p>

Section	Requirement	Description	Quantitative/ Qualitative
		<p>Timing: Justify urgency based on outage constraints, asset lead times, and compliance risks.</p> <p>Non-load: justification of any proportion of non-load shared driver to reduce number of interventions.</p>	
Needs Case	Project benefits	<p>The expected increase in transmission capability or other wider system benefits.</p> <p>Where a project uses a PASE variant or does not align with PASE, the ETO should provide justification for the alternative solution.</p> <p>In some cases, these designs deliver clear benefits, such as enabling urgent delivery or reducing major programme risks (eg, land acquisition or planning constraints). These need to be clearly articulated.</p>	Quantitative / Qualitative – include metrics such as MW increase in transfer capability, boundary flow limits, constraint cost savings, reliability improvements (LOLE/EUE), plus qualitative explanation of wider benefits (eg resilience, decarbonisation).
Needs Case	Interactive projects	<p>Outline whether and how this project interacts with or is dependent on any other project on the network, and vice versa.</p> <p>Specify whether there are interactions with</p>	Qualitative – narrative on dependencies and interactions.

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Section	Requirement	Description	Quantitative/ Qualitative
		CP2030 and CP2030-referenced projects.	
Needs Case	Economic benefit	Where possible, provide details of direct and wider economic benefits, estimation for any high-level CBA analysis studies.	Quantitative / Qualitative – analysis of inputs (eg constraint savings) for inputs into any high-level CBAs, plus any qualitative socio-economic benefits analysis.
Optioneering	Project is subject to statutory or non-statutory public consultation	Does the project require formal planning consent or is it exempt? (eg under Town and Country Planning Act, Development Consent Order, or permitted development rights) If consent is required, what stage is the process at? (eg, early planning, consultation completed, application submitted, consent granted)	Qualitative – narrative on planning status and consultation progress, where possible
Optioneering	List of options considered	Provide a list options for the project with justification and explanations of which are shortlisted and a summary comparison across projects.	Qualitative – narrative on optioneering and rationale for shortlist.
Optioneering	Chosen solution description - Early technical view (scope, route eg maps including of any known utility	<i>Where the purpose of the Eligibility Letter submission is to also establish Early Options Needs Case.</i> Description of the preferred solution proposed by ETO.	Qualitative – narrative justification of alignment or deviation from PASE principles. If project is a PASE compliant Variant Option or non-PASE compliant provide additional justification following guidance in

Section	Requirement	Description	Quantitative/ Qualitative
	crossings, landing points etc).	Provide early technical details of the project, including but not limited to: -Project scope -Route – eg maps of known utility crossings, landing points etc. - environmental, and locational context of the preferred solution and how it influenced the optioneering.	Appendix 3 – Justification Guide (Eligibility Letter). Technical schematic, GIS maps and other technical information may be provided.
Optioneering	Optioneering justification (For variant options or non-PASE options only)	<i>Where the purpose of the Eligibility Letter submission is to also establish Early Options Needs Case.</i> - Provide a summary based on the information set out across all elements of the letter justifying the rationale for the preferred solution against alternatives.	Qualitative/ Quantitative – narrative justification of optioneering against alternative solutions. This may include a high-level CBA where possible. (Ofgem recognises that early-stage CBAs are necessarily high-level and based on immature project information, and therefore expects only proportionate, outline analysis that highlights key cost-benefit drivers, uncertainties, and how the assessment will mature as the project develops).
Optioneering	Early cost views and estimates	Provide a breakdown of early cost estimates of the project(s). This should follow the same structure of reporting as RIIO-T3 Business Plan Reporting Templates (BPDT) where possible.	Quantitative – cost estimates in £m following BPDT structure. Set out the timing of investments across different price controls.

Section	Requirement	Description	Quantitative/ Qualitative
		TOs must identified costs already incurred, this includes costs associated with PCF activities.	
Optioneering	Delivery timescales and risks	Provide information on delivery timescales and risks to timely delivery. Identified uncertainties expected to be experienced. This should include top five material risks.	Qualitative – narrative on programme risks and mitigation.
Optioneering	Environmental considerations and stakeholder engagement (For variant options or non-PASE options only)	<i>Where the purpose of the Eligibility Letter submission is to also establish Early Options Needs Case:</i> - Provide a summary of environmental impacts on design identified and stakeholder engagement undertaken for the project to date. This may include: - Identification of key environmental considerations (eg urbanity, landscape, visual impact, land use, carbon footprint, biodiversity impacts). - Description of any mitigation measures proposed to reduce environmental harm.	Qualitative and Quantitative – Proportional to the maturity of the project: - Provide narrative on environmental risks and mitigation strategies identified, with supporting evidence of stakeholder engagement outcomes where possible. - Include quantitative data where available, such as estimated carbon emissions, land area affected, number of stakeholders engaged, and consultation timelines, where possible. - Where applicable, provide metrics on biodiversity impact, visual mitigation measures, and socio-economic benefits linked to stakeholder agreements, where possible.

Section	Requirement	Description	Quantitative/ Qualitative
		<p>- Summary of engagement with relevant stakeholders (eg, ESO, developers, local communities, planning authorities).</p> <p>- Evidence that stakeholder feedback has been considered and incorporated into the solution design proportional to the maturity of the project.</p> <p>- References to supporting documents such as Environmental Impact Assessments (EIA), planning submissions, and stakeholder consultation reports if available</p>	
Incentives	Major Project ODI-F	<p>Does the ETO want to apply for a Major Project ODI-F.</p> <p>ETO must provide evidence that the project is of sufficient strategic importance and of sufficient maturity for an incentive to be set – as set out in the Major Projects ODI-F Governance Document</p> <p>- ETOs must provide sufficient evidence to confirm that the</p>	<p>Quantitative and qualitative information:</p> <p>- Confirmation of data availability or planned timelines for developing missing inputs in time for Project Assessment stage.</p> <p>- Identification of any information gaps and how the ETO proposes to address them.</p> <p>In the following format:</p> <p>Evidence Requirement</p> <ul style="list-style-type: none"> • Required for <ul style="list-style-type: none"> ○ Source <p>P50 Delivery Date + methodology</p>

Section	Requirement	Description	Quantitative/ Qualitative
		<p>required inputs for the ODI-F, such as:</p> <ul style="list-style-type: none"> - P50 Delivery Date, - Forecast Totex, and <p>(if available) Optimal Delivery Date—that can be developed and validated.</p>	<ul style="list-style-type: none"> • Target Delivery Date (TDD), design selection, rewards/penalties <ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>Expected Delivery Date</p> <ul style="list-style-type: none"> • Used by Ofgem to verify, challenge, and assess delays, ensuring the P50 Delivery Date and TDD are realistic, not to set rewards/penalties directly <ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>ODD (if available)</p> <ul style="list-style-type: none"> • Design A/B/C selection, TDD, reward cap <ul style="list-style-type: none"> ○ NESO (via ETO) <p>Forecast project totex</p> <ul style="list-style-type: none"> • All monetary parameters (reward/penalty) <ul style="list-style-type: none"> ○ ETO or NESO <p>Constraint cost estimate (if available)</p> <ul style="list-style-type: none"> • Reward/penalty annual values (Design A) <ul style="list-style-type: none"> ○ NESO or ETO <p>Project justification & strategic importance evidence</p> <ul style="list-style-type: none"> • Deciding if project should have ODI F <ul style="list-style-type: none"> ○ ETO <p>Consumer benefit case</p>

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Section	Requirement	Description	Quantitative/ Qualitative
			<ul style="list-style-type: none"> • Eligibility + justification <ul style="list-style-type: none"> ○ ETO <p>Delivery plan details</p> <ul style="list-style-type: none"> • Assurance for parameter setting <ul style="list-style-type: none"> ○ ETO <p>Evidence for Delay Event (later)</p> <ul style="list-style-type: none"> • Penalty Exemption Period modifications <ul style="list-style-type: none"> ○ ETO

4. System Design Table

(Maximum 10 pages of A4)

System Design Table	Circuit/Project	Project Name Option 1	Project Name Option 1a	Project Name Option 2
Thermal and Fault Design	Existing Voltage (if applicable)			
Thermal and Fault Design	New Voltage			
Thermal and Fault Design	Existing Continuous Rating (if applicable)			
Thermal and Fault Design	New Continuous Rating			
Thermal and Fault Design	Existing Fault Rating (if applicable)			
Thermal and Fault Design	New Fault Rating			
NESO Dispatchable Services	Existing MVA Rating (if applicable)			
NESO Dispatchable Services	New MVA Rating (if applicable)			
NESO Dispatchable Services	Existing GVA.s Rating (if applicable)			
NESO Dispatchable Services	New GVA.s Rating			
System Requirements	Present Demand (if applicable) MVA			
System Requirements	2050 Future Demand MVA			

System Design Table	Circuit/Project	Project Name Option 1	Project Name Option 1a	Project Name Option 2
System Requirements	Present Generation (if applicable) MVA			
System Requirements	Future Generation Count (direct connections)			
System Requirements	Future Generation Capacity (licensee forecast) MVA			
Initial Design Considerations	Explanation of Limiting Factors			
Initial Design Considerations	Strategic Investment			

Stage 2 Template – Needs Case (Engineering Justification Paper)

1. Reference Table

(Project specific reference table used throughout project life cycle – Maximum 2 pages of A4.

Provide an updated Reference Table- as set out in Stage 1 Template – Eligibility Letter in Appendix 2 – clearly highlighting areas that have been updated since the Eligibility Letter Submission.

ETOs must also include a document catalogue, providing a list and brief description of all documents and files submitted as part of the application, to ensure clarity and traceability of the evidence provided.)

2. Core Narrative

(Maximum 100 pages of A4 including appendices. Maximum 10 pages of A4 for each annex)

Section	Requirement	Description	Quantitative/ Qualitative
Needs Case	Needs Case clarity	Demonstrate the specific network need or constraint the project addresses, supported by robust data and analysis. This should	Quantitative / Qualitative – include power flow studies, boundary limits, generation/demand forecasts, NESO forecasts etc.

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Section	Requirement	Description	Quantitative/ Qualitative
		include clearly identified investment drivers and justification for intervention.	
Needs Case	Output proposal	ETOs may also propose outputs for the project, to be considered by us for specification in the Load Re-opener licence condition.	Qualitative – narrative description of outputs and delivery milestone
Needs Case	Needs case views	<p>Summary of the project’s needs case, focusing on the underlying network drivers and justification for intervention. This may include:</p> <ul style="list-style-type: none"> • System Context: Identify the network boundary/constraint, provide current and forecast power flows, thermal ratings, NETS SQSS compliance, and any operability issues (fault level, voltage stability). • Investment Drivers: Quantify generation/demand growth using FES and NOA, include contracted volumes, termination risk, and NESO recommendations. • Counterfactuals: summarise “do nothing” and “do minimum” scenarios with indicative cost-benefit comparisons. • Timing: Justify urgency based on outage 	<p>Qualitative narrative and quantitative evidence to demonstrate the needs case. This means providing clear explanations of network drivers alongside measurable data such as power flow studies, thermal ratings, generation/demand forecasts, cost-benefit comparisons, and reliability metrics (eg, MW transfer uplift, constraint savings, LOLE/EUE).</p> <p>We expect ETOs to sign-post analysis to any CBA to support optioneering justification (unless directed otherwise by Ofgem).</p>

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Section	Requirement	Description	Quantitative/ Qualitative
		<p>constraints, asset lead times, and compliance risks.</p> <ul style="list-style-type: none"> • Evidence: Include high-level power system study outputs and NESO modelling (where appropriate); provide metrics such as MW transfer uplift, constraint savings, and reliability improvements (loss of load). 	
Needs Case	NESO-driven interactions (where applicable)	Identify any interactions with NESO-led projects, including enabling works for CSNP projects or projects recommended by transitional CSNPs.	Qualitative – narrative supported by NESO correspondence or planning documents.
Needs Case	Future energy scenarios	Reference GB-wide generation and demand forecasts, including Future Energy Scenarios and the Strategic Spatial Energy Plan (SSEP).	Quantitative / Qualitative – include FES data tables and narrative interpretation.
Needs Case	Regional connection	<p>Provide ETO assessments of likely outturn connections on their regional networks.</p> <p>Analysis is only required where project is triggered or partially triggered by forecast connections, rather than solely by boundary-wide system need – and it is a material factor in establishing the project’s justification, optioneering, timing, scale, or long-term consumer value.</p>	<p>Quantitative / Qualitative – forecast MW capacity and narrative on regional drivers. Evidence may include for example:</p> <ul style="list-style-type: none"> - how new local clusters of new generation or demand materially affect future power flows, thermal ratings, or SQSS compliance in the area being reinforced. - ETO analysis of NESO modelling or FES/SSEP pathways assume specific regional connection volumes. - how proposed solution includes anticipatory or

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Section	Requirement	Description	Quantitative/ Qualitative
			strategic investment, where showing credible regional connection growth is essential to justify overbuild or extended scope.
Needs Case	Synergies with NLRE	Consider non-load related expenditure where synergies exist with load-related works, where this is applicable – i.e. where projects have shared drivers	Qualitative – narrative supported by cost estimates where applicable.
Needs Case	Strategic planning and policy alignment	Demonstrate alignment with the latest Network Options Assessment (NOA), CSNP or equivalent planning documents, where appropriate. Explain how local or national policies and net zero targets (including CP2030 and connections reform impacts) have influenced option selection and timing.	Qualitative – narrative referencing NOA, CSNP recommendations and system planning output Qualitative – narrative referencing CP2030, HND, and relevant policy documents.
Needs Case	System constraints	Evidence of current or future capacity shortfalls and system constraints requiring intervention.	Quantitative / Qualitative – power flow studies, thermal ratings, and narrative justification.
Needs Case	Counterfactuals	Include analysis of credible alternatives such as 'do nothing' or 'do minimum' scenarios.	Qualitative – narrative supported by indicative cost and risk comparisons.
Needs Case	Environmental Impacts and stakeholder engagement.	Summarise environmental impacts, planning and consenting risks, and stakeholder engagement outcomes for the proposed solution being taken	Qualitative – narrative supported by planning documents and engagement records, where appropriate – recognising around planning documents.

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Section	Requirement	Description	Quantitative/ Qualitative
		<p>forward and how feedback/analysis from discarded solution have informed this decision.</p>	
Optioneering	Optioneering analysis	<p>Licensees must provide a detailed narrative explaining the optioneering process undertaken. This should include:</p> <ul style="list-style-type: none"> - Completion of the optioneering summary table, formatted at the licensee’s discretion. - Clear references to appendices where supporting drawings, maps, and technical information are provided. - Inclusion of additional appendices where necessary to proportionately support the funding request. - Details of any crossings with other infrastructure (eg, gas transmission pipelines) when considering new routes. - Supporting evidence should be informed by the requirements set out in Appendix 3 – Expected Evidence, ensuring that submissions demonstrate robust justification for the preferred option and consideration of credible alternatives. 	<p>Qualitative – structured narrative with supporting diagrams; may include elements such as indicative ratings or route lengths.</p> <p>We expect ETOs to provide:</p> <ul style="list-style-type: none"> - Optioneering and appraisal evidence that is proportionate to project maturity and based on data that is reasonably available at the time. Where data exists, submissions should include a breakdown of costs by asset type and activity, supported by benchmarking against historical projects or industry standards; where full data is not yet available, ETOs should provide the best high-level estimates they can, clearly identifying uncertainties and explaining how the analysis will be refined as the project develops. - Detailed Whole-Life Cost Analysis (WLCA) to capture capital, operational, and replacement costs, alongside environmental and carbon impacts. - A detailed monetised Cost-Benefit Analysis (CBA) showing constraint cost savings and any consumer bill impacts (where robust analysis can be provided), supported by sensitivity testing on key

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Section	Requirement	Description	Quantitative/ Qualitative
			<p>assumptions. Quantify risk and contingency allowances with clear methodology and provide scenario modelling outputs to justify any anticipatory or strategic investment.</p> <p>- ETO submissions should identify any non-monetised benefits and summarise their relevance to long-term consumer value, ensuring these are explicitly listed alongside monetised CBA results.</p>
Optioneering	Cost-benefit analysis	<p>Submit evidence of cost-benefit analysis and sensitivity testing to confirm consumer value. This information should be submitted using the provided CBA template by Ofgem.</p> <p>If a project uses a PASE variant or does not align with PASE, the ETO must provide robust justification for the alternative solution.</p> <p>The ETO must demonstrate how designs may deliver clear benefits, such as enabling urgent delivery or reducing major programme risks (eg, land acquisition or planning constraints).</p> <p>We expect analysis demonstrating justification for the preferred option and consideration of how credible alternatives</p>	<p>Quantitative/Qualitative – monetised costs/benefits (whether quantifiable or not), NPV, constraint cost savings, sensitivity analysis.</p> <p>ETOs must list all benefits within the CBA, including those that are qualitative, unquantified, or not readily monetisable. This ensures Ofgem has full visibility of the benefit case in one place and avoids reliance on arguments dispersed across multiple documents. If a benefit is not listed in the CBA, Ofgem may need to assume that no such benefit exists.</p>

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Section	Requirement	Description	Quantitative/ Qualitative
		have informed the chosen solution.	
Optioneering	Cost drivers	<p>Explain the key factors influencing project costs, including engineering design choices, locational constraints, procurement strategy, and risk allocation. The narrative should clearly link cost drivers to the preferred solution and justify any anticipatory investment. This includes:</p> <p>Scope Overview:</p> <p>Provide a clear description of the project scope, including all major components (eg, overhead lines, substations, cable sections) and any associated works. This should align with the technical design and delivery strategy.</p> <p>Breakdown of quantities:</p> <p>Submit a detailed summary covering all asset types and quantities. This should include unit rates, volumes, and assumptions used in estimating costs.</p> <p>Strategic Investment - refers to elements of a project that are designed to meet credible future system needs beyond the immediate trigger for</p>	<p>Quantitative/qualitative evidence explaining key cost drivers—such as design choices, locational constraints, procurement strategy, and risk allocation—should be provided in a manner proportionate to project maturity and based on data reasonably available at the time. Where data exists, submissions should include a breakdown of indicative costs by asset type and activity, supported by benchmarking against historical projects or industry standards, where possible; where full data is not yet available, ETOs should provide the best high-level estimates where they can, clearly identifying uncertainties and explaining how the analysis will be refined as the project develops.</p> <p>Where Strategic Investment is proposed, justify it with scenario modelling outputs and cost-benefit analysis showing long-term consumer value.</p>

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Section	Requirement	Description	Quantitative/ Qualitative
		<p>the reinforcement— such as providing additional capacity, extendibility, or optionality. Where the project includes anticipatory elements provide a clear rationale supported by scenario modelling and whole-life cost analysis where possible.</p> <p>We expect analysis demonstrating justification for the preferred option and consideration of how credible alternatives have informed the chosen solution.</p>	
Optioneering	Delivery and risk	<p>Outline delivery timelines, planning assumptions, and risk mitigation strategies on project deliverability, including:</p> <p>A detailed explanation of the delivery approach, covering programme structure, key milestones, and risk mitigation strategies.</p> <p>Previous Funding Overview:</p> <p>Include details of any funding previously requested for assets that interact with the proposed site strategy.</p> <p>Identify any assets that have been subject to intervention within the</p>	<p>Qualitative – program schedule, summary of project risk register including mitigation narrative.</p> <p>Deliverability evidence including supply chain capacity, outage planning, risk modelling.</p>

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Section	Requirement	Description	Quantitative/ Qualitative
		<p>last two regulatory periods.</p> <p>Provide associated costs and a short description of the scope of those interventions.</p> <p>Programme Schedule:</p> <p>Submit a detailed programme for each option using recognised planning tools (eg, Primavera P6 or Microsoft Project).</p> <p>The programme should clearly show critical path activities, dependencies, and key delivery milestones.</p> <p>Highlight any outage planning considerations and coordination with third-party works.</p> <p>Supporting evidence should demonstrate confidence in deliverability and alignment with the proposed delivery timeline. Where appropriate, reference appendices containing detailed schedules, risk registers, and procurement strategies.</p> <p>We expect analysis demonstrating justification for the preferred option and consideration of how credible alternatives have informed the chosen solution.</p>	

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Section	Requirement	Description	Quantitative/ Qualitative
Incentives	Major Project ODI-F	<p>Does the ETO want to apply for a Major Project ODI-F.</p> <p>Does the ETO want to apply for a Major Project ODI-F.</p> <p>ETO must provide evidence the project is of sufficient strategic importance and of sufficient maturity for an incentive to be set – as set out in the Major Projects ODI-F Governance Document - ETOs must provide sufficient evidence to confirm that the required inputs for the ODI-F, such as:</p> <ul style="list-style-type: none"> - P50 Delivery Date, - Forecast Totex; and (if available) - Optimal Delivery Date—that can be can be developed and validated. 	<p>Quantitative and qualitative information:</p> <ul style="list-style-type: none"> - Confirmation of data availability or planned timelines for developing missing inputs in time for Project Assessment stage. - Identification of any information gaps and how the ETO proposes to address them. <p>In the following format:</p> <p>Evidence Requirement</p> <ul style="list-style-type: none"> • Required for <ul style="list-style-type: none"> ○ Source <p>P50 Delivery Date + methodology</p> <ul style="list-style-type: none"> • Target Delivery Date (TDD), design selection, rewards/penalties <ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>Expected Delivery Date</p> <ul style="list-style-type: none"> • Used by Ofgem to verify, challenge, and assess delays, ensuring the P50 Delivery Date and TDD are realistic, not to set rewards/penalties directly. <ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>ODD (if available)</p> <ul style="list-style-type: none"> • Design A/B/C selection, TDD, reward cap

Section	Requirement	Description	Quantitative/ Qualitative
			<ul style="list-style-type: none"> ○ NESO (via ETO) <p>Forecast project totex</p> <ul style="list-style-type: none"> • All monetary parameters (reward/penalty) <ul style="list-style-type: none"> ○ ETO or NESO <p>Constraint cost estimate (if available)</p> <ul style="list-style-type: none"> • Reward/penalty annual values (Design A) <ul style="list-style-type: none"> ○ NESO or ETO <p>Project justification & strategic importance evidence</p> <ul style="list-style-type: none"> • Deciding if project should have ODI F <ul style="list-style-type: none"> ○ ETO <p>Consumer benefit case</p> <ul style="list-style-type: none"> • Eligibility + justification <ul style="list-style-type: none"> ○ ETO <p>Delivery plan details</p> <ul style="list-style-type: none"> • Assurance for parameter setting <ul style="list-style-type: none"> ○ ETO <p>Evidence for Delay Event (later)</p> <ul style="list-style-type: none"> • Penalty Exemption Period modifications <ul style="list-style-type: none"> ○ ETO

3. High-level Optioneering Summary Table

(Maximum 3 pages of A4 including appendices. Maximum 10 pages of A4 for each annex)

4. System Design Table

Option	Map	Layout of Substation/ Connection	Layout of all Route Works	Relevant Survey Works	Narrative Consenting Risks	Narrative Preferred Option	Narrative Rejection
Preferred							
Rejected 1							
Rejected 2							

(Maximum 3 pages of A4)

System Design Table	Circuit/Project	Project Name Option 1	Project Name Option 1a	Project Name Option 2
Thermal and Fault Design	Existing Voltage (if applicable)			
Thermal and Fault Design	New Voltage			
Thermal and Fault Design	Existing Continuous Rating (if applicable)			
Thermal and Fault Design	New Continuous Rating			
Thermal and Fault Design	Existing Fault Rating (if applicable)			
Thermal and Fault Design	New Fault Rating			
NESO Dispatchable Services	Existing MVA _r Rating (if applicable)			
NESO Dispatchable Services	New MVA _r Rating (if applicable)			
NESO Dispatchable Services	Existing GVA _s Rating (if applicable)			

System Design Table	Circuit/Project	Project Name Option 1	Project Name Option 1a	Project Name Option 2
NESO Dispatchable Services	New GVA.s Rating			
System Requirements	Present Demand (if applicable) MVA			
System Requirements	2050 Future Demand MVA			
System Requirements	Present Generation (if applicable) MVA			
System Requirements	Future Generation Count (direct connections)			
System Requirements	Future Generation Capacity (licensee forecast) MVA			
Initial Design Considerations	Limiting Factor			
Initial Design Considerations	Strategic Investment			

5. Appendices

- Relevant drawings
- Cost breakdown updates/further information (as required)
- Other Supporting Information in line with advice in Appendix 3

Stage 3 Template – Project Assessment

1. Reference Table

(Project specific reference table used throughout project life cycle – maximum 2 pages of A4)

If the project is designated Track 1 - submit a Reference Table as set out in the Stage 1 Template – Eligibility Letter: 1. Reference Table in Appendix 2.

or

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Provide an updated Reference Table – clearly highlighting areas that have been updated since the Eligibility Letter Submission or Needs Case Submission.

ETOs must also include a document catalogue, providing a list and brief description of all documents and files submitted as part of the application, to ensure clarity and traceability of the evidence provided.

2. Core Narrative

(Maximum 100 pages of A4 including appendices. Maximum 10 pages of A4 for each annex)

Requirement	Expanded Description
Introduction	<p>Provide a succinct summary of the entire submission</p> <p>Must include:</p> <ul style="list-style-type: none">• Changes to the investment since Stage 1 or Stage 2 submissions, including scope, cost, and delivery assumptions.• Identification of any new uncertainties or risks that may affect delivery or cost efficiency.• Confirmation of outputs, delivery year, and alignment with licence conditions.• High-level summary of project drivers, optioneering outcomes, and preferred solution rationale.• Include references to supporting appendices for technical drawings, planning status, and stakeholder engagement evidence.
Background Information	<p>Provide updated background information if changed from previous stages. If there have been no changes, this must be clearly stated.</p> <p>Must include:</p> <ul style="list-style-type: none">• Completion of all relevant tables summarising project details, technical scope, and planning assumptions.• Explanation of any material changes in project drivers, optioneering, or delivery strategy since Stage 1 or Stage 2.• Evidence of alignment with NESO planning documents (NOA, FES, Holistic Network Design).• References to appendices for additional technical or economic evidence where required.

Requirement	Expanded Description
	<ul style="list-style-type: none"> • Clear justification for changes and their impact on consumer value and delivery confidence.
Final Cost and supporting documents	<p>Provide a comprehensive cost justification</p> <p>Must include:</p> <ul style="list-style-type: none"> • Narrative explaining key cost drivers (engineering design choices, locational constraints, procurement strategy, risk allocation). • A detailed scope overview that clearly sets out all major project components and activities, showing how each element aligns with the technical design choices and the proposed delivery strategy to ensure coherent, efficient and deliverable project execution. • Where cost have already been incurred by the submission of the Project Assessment, including costs incurred in previous price controls, relating to either load or non-load element of the project, these costs must be clearly identified and flagged. • All costs mapped to the Ofgem Asset Possibilities (OAPs) with associated volumes, unit rates and assumptions. Where costs cannot be allocated to OAPs Licensees shall clearly define these costs. This includes items such as BNG and VA costs. • Full Bill of Quantities (BoQ) covering all asset types. <p>In circumstances where a BoQ cannot be provide, ETOs should:</p> <ul style="list-style-type: none"> ▪ Submit the most detailed cost breakdown available, mapped to Ofgem’s required structure (OAPs, unit rates, volumes, and assumptions) ▪ Provide supporting evidence demonstrating why a BoQ is unavailable. ▪ Provide alternative traceable evidence (eg tendered unit rates, contractor pricing schedules, breakdowns of labour/plant/material assumptions) <ul style="list-style-type: none"> • Breakdown of costs by category: Ofgem Asset Possibilities, Project Management, Risk and Contingency (with risk register), CAIs, Contractor Fees. • Main cost spreadsheet - RRP compliant submission with OAP C&Vs (see Appendix 3)

Requirement	Expanded Description
	<ul style="list-style-type: none"> • Evidence that the costs are efficient, eg through cost benchmarking, market testing, or competitive tendering. • Benchmarking against historical projects and industry standards. • Whole-Life Cost Analysis (WLCA) and Cost-Benefit Analysis (CBA) with sensitivity testing, if Ofgem determines they are required as a result of a Major Projects Change. • Efficient costs associated with environmental mitigation and BNG where this is applicable. • Projects with direct costs above £150m should submit closely associated indirects (CAI). For projects with direct costs below £150m, indirect costs must be recovered exclusively through Special Condition 3.13 Closely Associated Indirects (CAI) Use-it-or-lose-it mechanism and in line with the associated guidance.
<p>Major Project ODI-F (where applicable)</p>	<p>With reference to the Major Projects ODI-F Governance Document.</p> <p>Does the ETO want to apply for a Major Project ODI-F.</p> <p>ETO must provide evidence the project is of sufficient strategic importance and of sufficient maturity for an incentive to be set – as set out in the Major Projects ODI-F Governance Document - ETOs must provide sufficient evidence to confirm that the required inputs for the ODI-F, such as:</p> <ul style="list-style-type: none"> - P50 Delivery Date, - Forecast Totex, and (if available) - Optimal Delivery Date—that can be can be developed and validated. <p>In the following format:</p> <p><u>Evidence Requirement</u></p> <ul style="list-style-type: none"> • <u>Required for</u> <ul style="list-style-type: none"> ○ <u>Source</u> <p>P50 Delivery Date + methodology</p> <ul style="list-style-type: none"> • Target Delivery Date (TDD), design selection, rewards/penalties

Requirement	Expanded Description
	<ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>Expected Delivery Date</p> <ul style="list-style-type: none"> ● Used by Ofgem to verify, challenge, and assess delays, ensuring the P50 Delivery Date and TDD are realistic, not to set rewards/penalties directly <ul style="list-style-type: none"> ○ ETO (verified by Ofgem) <p>ODD (if available)</p> <ul style="list-style-type: none"> ● Design A/B/C selection, TDD, reward cap <ul style="list-style-type: none"> ○ NESO (via ETO) <p>Forecast project totex</p> <ul style="list-style-type: none"> ● All monetary parameters (reward/penalty) <ul style="list-style-type: none"> ○ ETO or NESO <p>Constraint cost estimate (if available)</p> <ul style="list-style-type: none"> ● Reward/penalty annual values (Design A) <ul style="list-style-type: none"> ○ NESO or ETO <p>Project justification & strategic importance evidence</p> <ul style="list-style-type: none"> ● Deciding if project should have ODI F <ul style="list-style-type: none"> ○ ETO <p>Consumer benefit case</p> <ul style="list-style-type: none"> ● Eligibility + justification <ul style="list-style-type: none"> ○ ETO <p>Delivery plan details</p> <ul style="list-style-type: none"> ● Assurance for parameter setting <ul style="list-style-type: none"> ○ ETO <p>Evidence for Delay Event (later)</p> <ul style="list-style-type: none"> ● Penalty Exemption Period modifications <ul style="list-style-type: none"> ○ ETO

Requirement	Expanded Description
Deliverability	<p>Provide a detailed deliverability assessment for the proposed solution, which must include:</p> <ul style="list-style-type: none"> • Narrative outlining delivery strategy, programme structure, and key milestones. • Previous funding overview, including references to any PCF and how expenditure will help achieve delivery outcomes. • Programme schedule using recognised planning tools (Primavera P6, MS Project or equivalent), showing original and current forecast dates. • Evidence of supply chain capacity, outage planning, and risk modelling. • Risk register and mitigation strategies for delivery risks, including risk registers. • Where appropriate, all major signed contracts or details of final binding offers (immediately prior to signing). • Coordination arrangements for third-party works and dependencies. • References to appendices for detailed schedules, procurement strategies, and stakeholder engagement records.
Environmental Impacts and stakeholder engagement (for Variant PASE , non- PASE aligned solutions or where additional context provides justification for optioneering solution)	<p>Summarise any final decisions on environmental impacts, planning and consenting mitigations, and stakeholder engagement outcomes for the proposed solution. How have these impacted final costs, including mitigation for elements such BNG etc. (where applicable).</p>

3. Appendices

- Cost tables associated with Core Narrative.

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- Cost breakdown/further information (as required).
- Other Supporting Information in line with advice in Appendix 3.
- Relevant procurement documents, such as evaluation reports and analysis.

Template – Cancelled Projects

This template should be completed by licensees for projects that have been cancelled after submission through the Eligibility Letter, Needs Case or Project Assessment. It ensures Ofgem has visibility of cancelled projects and associated costs.

(Maximum 10 pages of A4 including appendices. Maximum 3 pages of A4 for each annex)

1. Project Identification	Project Name: [Enter project name] Project Reference: [Enter reference] Assessment Track (Track 1, Track 2, Track 3): [Enter track] Original Submission Date: [Enter date]
2. Reason for Cancellation	Provide a clear explanation of why the project has been cancelled, including any external factors (eg, planning, stakeholder objections, system changes).
3. Costs Incurred	Summarise all costs incurred up to cancellation (broken down by cost categories), including PCF, design, procurement, and any costs arising from the resale or disposal of land that is net of any revenue from the sale of the land. See sub-table below.
4. Outputs Delivered	Detail any outputs delivered prior to cancellation (eg, completed surveys, design work).
5. Interactions with Other Projects	Identify dependencies or interactions with other projects and explain implications of cancellation.
6. Supporting Evidence	Attach or reference any supporting documents (eg, stakeholder correspondence, cost reports, planning decisions). List of Attachments: [Enter details]

Cost Category	Amount (£)	Comments
[Enter details]	[Enter details]	[Enter details]

Template – Material Project Changes

ETOs must submit the Template – Material Project Changes when a project that has already passed the Eligibility Assessment (or where a project was determined under RIIO-ET3 Final Determinations to be eligible for Project Assessment under the Load Re-opener) experiences significant changes before or during the Needs Case Assessment or Project Assessment stages.

(Maximum 20 pages of A4 including appendices. Maximum 5 pages of A4 for each annex)

1. Project Identification	Project Name: [Enter project name] Project Reference: [Enter reference] Original Assessment Track: [Enter previous track] Date of Original Submission: [Enter date]
2. Summary of Changes	Provide a clear summary of the changes triggering reassessment (eg engineering design, costs, delivery timing, scope). See Material Changes thresholds table below.
3. Updated Project Drivers	Explain how the project continues to meet the identified network need and delivers consumer benefits despite the changes.
4. Revised Optioneering Analysis	Detail the optioneering process undertaken following the changes. Include alternatives and rationale for the preferred option. Indicate whether or not the new solution is PASE aligned.
5. Updated Cost-Benefit Analysis	Provide a revised cost-benefit analysis, including sensitivity testing to demonstrate efficiency under different scenarios.
6. Delivery and Risk Impacts	Summarise the impact of changes on delivery timelines, supply chain, outage planning, and risk profile. Include mitigation strategies.
7. Supporting Evidence	Attach or reference any supporting documents (eg, updated technical drawings, cost reports, stakeholder correspondence). List of Attachments: [Enter details]

Material changes thresholds

This table sets out the thresholds for material changes:

Category	Definition	Threshold
Engineering Design	Significant deviation from original technical	Change in core design (eg, overhead line to cable, AIS to GIS) or major design

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Category	Definition	Threshold
	configuration or PASE alignment.	alterations impacting reliability, resilience, or extendibility.
Costs	Increase in forecast capital expenditure or changes in cost drivers.	Where the cost increase exceeds: (i) 50% of the projects cost, or (ii) £50m, whichever is greater. (eg for a £1bn project, the threshold would be a £500m increase, not £50m)
Delivery Timing	Material shift in delivery schedule or outage strategy.	Delay or acceleration of ≥ 18 months in key milestones (eg, in-service date).
Other Material Factors	External or systemic changes affect project justification.	New planning/consenting risks, supply chain constraints, vendor changes, or significant interactions with other projects.

Appendix 3 - Justification guide

A3.1 In this section we provide guidance on additional evidence licensee may provide to support our review of the Eligibility Letter or Needs Case where the project is either:

- PASE Primary Option; or
- PASE Variant Option; or
- Non-PASE aligned.

A3.2 We will take into consideration a range of evidence in our assessment of the Eligibility Letter and Needs Case and therefore licensees should consider what is the most appropriate evidence which is needed to support their proposals.

A3.3 We recognise that the level of detail and robustness of evidence will vary depending on the stage of the project. Submissions should therefore provide evidence proportionate to the project's maturity. For example, at the Eligibility Letter stage, we expect more projects to be of lower maturity. Therefore, we expect high-level cost estimates and indicative optioneering, whereas at the Needs Case stage we expect project to be more mature, and we expect a more developed cost-benefit analysis supported by sensitivity testing and detailed technical justification.

Stage 1 – Eligibility Letter

Overview

A3.4 We expect ETOs to provide the Eligibility Letter as early as is possible. This expedience will enable us to provide confidence over regulatory review tracks and timescales as early as possible.

Thresholds and Submissions

A3.5 For sub-£300m projects, once a PASE aligned or justified Variant Option has been accepted we do not require any additional submission until Project Assessment.

A3.6 For substation extension costs, we expect these values will be at a concept stage. We also note that for certain extensions these may not be possible within the existing substation. Where this is the case ETOs can provide additional details regarding the extendibility of the site.

A3.7 When proposing a Variant PASE option or non-PASE aligned options, ETOs must provide proportionate, robust, and clearly structured evidence demonstrating why the alternative solution represents the most appropriate and efficient choice. EL submissions seeking confirmation of Needs Case ('Early Options Needs Case' submissions) should include:

- A3.8 Clear justification for deviation from Primary Option - A narrative explaining the constraints, system need, or project-specific conditions that prevent adoption of a Primary PASE solution. This must identify locational, environmental, planning, operational, or engineering factors that materially influence the design choice.
- (a) Alignment with PASE principles - A concise explanation of how the alternative continues to uphold core PASE principles—efficiency, future-proofing, extendibility, standardisation, consumer value where the engineering option differs from Primary Options.
 - (b) Comparative optioneering analysis - A transparent comparison of credible alternatives, including the relevant Primary PASE option. This should address, where possible, whole-life cost benefits, deliverability, network performance, risk, outage implications, community/environmental impacts, and extendibility. The analysis should demonstrate that the Variant Option provides long-term consumer value in the round.
 - (c) High-level Cost-Benefit Analysis (CBA) and Whole-Life Cost Analysis (WLCA) – If an ETO is seeking a decision on Early Options Needs Case, should be provided with evidence showing how the Variant Option performs against the Primary Option in monetised terms. Where data allows, this should include sensitivity testing, scenario analysis, constraint cost implications, carbon impacts, and any factors affecting asset utilisation, anticipatory build, or future reinforcement needs.
 - (d) Technical evidence supporting the design choice – Where possible early technical schematics, site-specific engineering assessments, geotechnical/environmental constraints, substation layouts, routing constraints, planning requirements, and interactions with existing infrastructure. This should demonstrate that the Variant Option is technically appropriate.
 - (e) Deliverability and programme evidence - Assessment of any delivery timescales, construction risks, outage requirements, supply chain considerations, land availability, and consenting challenges. Where the Variant Option enables materially faster, lower-risk, or more flexible delivery than a Primary design, this should be clearly articulated and evidenced.
 - (f) Environmental and stakeholder considerations - Evidence of environmental impacts, mitigation requirements, community acceptability, planning feedback, and stakeholder engagement. Where Variant Options reduce environmental harm, minimise land-take, or improve consenting prospects, ETOs must provide supporting evidence.

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- (g) Supporting documentation - Where available any power system studies, NESO correspondence, cost estimates, risk registers, technical drawings, environmental assessments, procurement intelligence, or any other evidence that supports justification

A3.9 Where an ETO proposes a non-PASE aligned solution, the ETO must provide robust, and proportionate justification (with regard to project maturity and available data) demonstrating why deviation from both Primary and Variant PASE options is necessary and why the proposed alternative represents the most efficient and consumer-focused solution. The following categories of evidence may be provided:

- (a) Clear justification for non-alignment - Explain why neither the Primary nor Variant PASE option is suitable. This should include:
 - (i) Specific engineering, locational, or operational constraints that materially prevent adoption of PASE options.
 - (ii) Evidence of environmental, consenting, planning, land, or community constraints that significantly limit PASE-compliant designs.
 - (iii) Explanation of system conditions or project-specific characteristics that make PASE options technically inappropriate or undeliverable.
 - (iv) This justification must go beyond preference and demonstrate material and evidenced reasons for deviation.
 - (v) Developer led scope requirements.
- (b) Comprehensive optioneering analysis - The ETO must provide a full comparison between:
 - (i) All feasible credible alternatives
 - (ii) The relevant Primary any Variant PASE options and the proposed non-PASE solution. This comparison may consider:
 1. Network performance and operability
 2. Outage requirements
 3. Deliverability and programme risk
 4. Constraint cost impacts
 5. Extendibility and long-term optionality
 6. Community and environmental impacts
 7. Future energy system scenarios and long-term system need

- (c) High-level Cost-Benefit Analysis (CBA) and Whole-Life Cost Analysis (WLCA)- where possible - economic justification, that may include:
 - (i) CBA comparing all credible options with monetised costs and benefits
 - (ii) Sensitivity testing under multiple scenarios
 - (iii) WLCA assessing lifetime costs, including maintenance, replacement, carbon impacts, and long-term extension costs
 - (iv) Power system study outputs (if applicable and where data allows) supporting performance differences
 - (v) Quantification of the consumer impact of any acceleration, deferral, or risk-mitigation benefit claimed

A3.10 The evidence should, if possible, demonstrate that the proposed non-PASE design is economically beneficial over the full asset lifetime, not just in upfront terms.

- (a) Technical evidence demonstrating viability - The ETO should include robust technical documentation showing why the proposed alternative is appropriate. For example:
 - (i) Engineering schematics
 - (ii) Site-specific surveys (geotechnical, environmental, routing, topographic)
 - (iii) Spatial or land-use analyses demonstrating inability to accommodate PASE options.
 - (iv) Fault-level, thermal, and operability assessments
 - (v) Interaction with existing network topology or constraints
 - (vi) Detailed explanation of why PASE designs are technically unviable or impose disproportionate risk

A3.11 The evidence should, if possible, demonstrate technical necessity, not general preference.

- (a) Deliverability and programme justification - Non-PASE options should be supported by clear evidence that they improve or can de-risk delivery compared to PASE alternatives, and deliver these improvements in a way that is proportionate to any additional cost. Evidence may include:
 - (i) Construction and delivery schedules
 - (ii) Outage planning assessments
 - (iii) Supply chain evidence and vendor constraints

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- (iv) Land access / consenting timelines with documented planning authority feedback
- (v) Identification of programme risks with quantified impacts
- (vi) Analysis showing that PASE options would result in material delay or higher delivery risk

A3.12 Claims of improved deliverability may be substantiated with evidence, not asserted.

- (a) Environmental, consenting, and stakeholder evidence – ETOs should provide a comprehensive assessment of:
 - (i) Environmental impacts and mitigation requirements
 - (ii) Visual, ecological, or land-use constraints unique to the site
 - (iii) Planning risks and documented feedback from planning authorities
 - (iv) Engagement with stakeholders (communities, developers, local authorities, NESO)
 - (v) Evidence that the proposed non-PASE solution better aligns with environmental or consenting realities

A3.13 This should include documentation where PASE options were rejected by stakeholders or materially increase planning risk.

- (a) Alignment with consumer value and long-term system needs - Despite non-alignment, the ETO should demonstrate how the proposed solution:
 - (i) Supports long-term consumer value
 - (ii) Aligns with net-zero and system growth requirements
 - (iii) Minimises future reinforcement costs
 - (iv) Avoids asset stranding
 - (v) Maintains or improves operability and system resilience

A3.14 The ETO should, if possible, articulate clearly how any additional cost or deviation delivers measurable long-term benefits consistent with Ofgem's statutory duties.

- (a) Supporting documentation - Where available and relevant, the ETO should supply:
 - (i) NESO correspondence
 - (ii) Planning authority feedback

- (iii) Environmental assessments or early EIAs
- (iv) Risk registers
- (v) Updated cost spreadsheets
- (vi) Route maps, GIS drawings, or substation layouts
- (vii) Supply-chain correspondence or market intelligence
- (viii) Evidence of land discussions or constraints

A3.15 All materials should be proportionate to project maturity.

Variant Option justification

A3.16 Minimum expectations for “robust justification” at the Eligibility Letter stage for Variant Options or non-PASE aligned solutions at the Eligibility stage refers to proportionate, early-stage evidence that clearly explains why the option is appropriate, even if detailed analysis will mature before Needs Case or Project Assessment. As a minimum, ETOs should provide:

- i) a clear explanation of the constraints, system needs, or locational factors informing the choice;
- ii) high-level optioneering demonstrating consideration of credible alternatives;
- iii) indicative early CBA/WLCA signals where available; and
- iv) articulation of how the proposal remains consistent with PASE principles of efficiency, resilience, and future-proofing.

A3.17 This ensures transparency without imposing a requirement for full detailed modelling at an early project maturity stage.

Early CBAs

A3.18 At this early stage, Ofgem recognises that any CBAs will be based on high-level assumptions, reflecting the immaturity of project design and optioneering. ETOs are therefore only expected to provide proportionate, outline analysis that demonstrates initial consideration of the relative long-term value of credible options, rather than fully quantified or model-driven assessments. We acknowledge that key inputs: such as constraint modelling, refined engineering quantities, procurement, and planning assumptions, may not yet be available.

A3.19 A “high-level CBA” refers to an early-stage, indicative comparison of credible options, based on simplified assumptions, broad cost ranges, and initial estimates of benefits. At this stage, we do not expect detailed modelling, granular cost breakdowns, or full system analysis. Instead, ETOs should outline the main factors driving differences between options, identify material

uncertainties, and explain how the assessment will mature as the project progresses.

A3.20 There is an expectation that ETOs can also submit a WLCA or integrate it into the CBA, providing the full lifetime cost profile for each option — including construction, operation, maintenance, carbon impacts, replacement cycles, and future extendibility. Taken together, WLCA and CBA help demonstrate that the preferred solution delivers long-term value for consumers, avoids future inefficiencies or asset stranding, and reflects sound engineering and economic judgement.

A3.21 To ensure consistency, WLCA inputs should form the lifetime cost basis within the CBA; non-monetisable WLCA findings must be explicitly summarised in the CBA; scenario modelling should vary WLCA cost inputs as well as system benefits; and any anticipatory or strategic investment should be justified through WLCA-supported long-term value arguments.

A3.22 Recognising project maturity at this stage CBAs do not need to include any costs associated with changing the delivery dates of options, as all options should be able to start at the same time at this stage of the project.

A3.23 At the Eligibility Letter stage, ETOs should aim to quantify all relevant costs and benefits, to the extent that data maturity allows, when submitting high-level CBA. This may include, but not limited to quantifying:

- Constraint cost reduction
 - (a) Quantify expected savings from reduced system constraints, such as avoided redispatch and balancing costs.
 - (b) Use NESO modelling outputs or historical constraint cost data as evidence.
 - (c) Provide calculations showing how these savings translate into
- Impact of delay
 - (a) Assess the financial impact of potential delays on constraint costs and consumer bills where robust analysis can be provided.
 - (b) Include risk-adjusted scenarios and explain assumptions used in modelling.
- Socio-economic benefits
 - (a) Provide a narrative explaining the expected regional and national economic benefits, including job creation and inward investment.
 - (b) Quantify benefits using recognised methodologies such as Gross Value Added (GVA) modelling based on ONS multipliers and employment impact studies.
 - (c) Where quantification is challenging, provide qualitative evidence supported by stakeholder engagement and regional development plans.
- Consumer bill impact

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- (a) Translate system savings and efficiency gains into indicative consumer bill impacts using methodologies.
- (b) Provide clear assumptions and calculations to support these estimates.
- Other supporting evidence where possible:
 - (a) Stakeholder engagement records and regional development plans.
 - (b) Sensitivity analysis and scenario modelling outputs.

A3.24 Ofgem may direct CBA requirements for the Needs Case assessment, if the project is subject to Track 3, using evidence received during the Eligibility Letter Assessment Stage.

Potential for Cancelled Projects

A3.25 We anticipate that Eligibility Letter applications may be submitted for projects which do not progress. In anticipation of this we have included a Cancelled Projects template to allow for this.

Stage 2 – Needs Case

Overview

A3.26 This Section provides guidance for Needs Case Submissions

Optioneering

A3.27 ETOs must explain how credible alternatives have been considered and evaluated for whole-life cost efficiency, deliverability, and consumer value. A thorough review provides transparency, supports regulatory confidence, and protects consumers by confirming that the chosen option represents the optimal balance of technical performance, environmental impact, and economic benefit

A3.28 ETOs must provide justification that clearly demonstrates why the alternative design is necessary and how it remains aligned with PASE principles of efficiency, resilience, and optionality.

Cost Benefit Analysis (CBA)

A3.29 Detailed CBA and WLCA are complementary tools that must be considered together: CBA assesses the relative monetised benefits of reinforcement options—such as constraint cost reductions and system efficiencies—while WLCA evaluates the full lifetime cost implications of each option, including construction, maintenance, replacement, carbon impacts and future extendibility. Used in combination, they provide a balanced view of both economic value and long-term cost efficiency, ensuring that short-term savings do not mask higher lifetime costs and that anticipatory or strategic investment is

properly assessed. Ofgem recognises that project maturity may limit the availability of detailed data at early project stages; however, WLCA, like CBA, can be applied proportionately, using high-level assumptions and indicative cost ranges where necessary, with uncertainties clearly identified and refined as the project develops.

A3.30 The ETO's submission must include evidence on the expected long-term value of the proposed project for consumers when compared to alternative approaches. Such evidence may include:

- TOs must list all relevant benefits in the CBA, including those that are qualitative, unquantified, or not readily monetisable. This ensures Ofgem has full visibility of the complete benefit case in one place and avoids reliance on arguments dispersed across multiple documents. Where a benefit is not listed in the CBA, Ofgem may need to assume that no such benefit exists. This should focus on the monetised costs and benefits for consumers across different scenarios for future generation. In the case of load-related projects (including generation connections), this may include standalone analysis produced by the NESO.
- An explanation of the methodology and assumptions used in the CBA.
- Additional analysis looking at the sensitivity of the CBA results to key inputs and assumptions such as the volume of generation and demand projections, discount rates and constraint volumes and costs.

A3.31 The modelling of the CBA, including:

- a working spreadsheet of the CBA, using Ofgem's template;
- details of the inputs, outputs and any calculated constraint volumes from the CBA; and
- any modelling of key assumptions.
- Relevant information provided by the SO which has been used to inform the analysis on the proposed reinforcement.

A3.32 At the Needs Case stage, any submitted CBA must demonstrate consideration of key factors beyond capital costs. This includes, but not limited to quantifying:

- Constraint cost reduction
 - (a) Quantify expected savings from reduced system constraints, such as avoided redispatch and balancing costs.
 - (b) Use NESO modelling outputs or historical constraint cost data as evidence.
 - (c) Provide calculations showing how these savings translate into
- Impact of delay
 - (a) Assess the financial impact of potential delays on constraint costs and consumer bills.

- (b) Include risk-adjusted scenarios and explain assumptions used in modelling.
- Socio-economic benefits
 - (a) Provide a narrative explaining the expected regional and national economic benefits, including job creation and inward investment.
 - (b) Quantify benefits using recognised methodologies such as Gross Value Added (GVA) modelling based on ONS multipliers and employment impact studies.
 - (c) Where quantification is challenging, provide qualitative evidence supported by stakeholder engagement and regional development plans.
- Consumer bill impact
 - (a) Translate system savings and efficiency gains into indicative consumer bill impacts using methodologies.
 - (b) Provide clear assumptions and calculations to support these estimates.
- Other supporting evidence where possible:
 - (a) Stakeholder engagement records and regional development plans.
 - (b) Sensitivity analysis and scenario modelling outputs.

Whole Life Cost Analysis (WLCA)

A3.33 ETOs should provide Whole Life Cost Analysis (WLCA) for each proposed reinforcement option to show that decision-making reflects the full cost implications over the asset's lifetime. The inclusion of WLCA ensures that options with lower initial costs but higher future liabilities are appropriately assessed against alternatives that may offer better long-term efficiency

A3.34 WLCA should be presented alongside the Cost-Benefit Analysis (CBA) to provide a comprehensive view of both the economic benefits and the lifetime cost profile of each option.

A3.35 WLCA may include but is not limited to:

- Capital costs (Construction), including costs of land, easements/wayleaves and visual amenity mitigations
- Cost of community benefits and bill discounts to those living in proximity of new infrastructure (if applicable)
- Long Term Operational Costs (Maintenance, Running Costs) estimations between different proposals.
- Equivalent carbon equivalent cost of greenhouse gas emissions in construction and operation over the life of the assets, this includes leakage of any Insulation Gases
- Present value cost of like for like replacement at the end of the economic life of the asset (eg 40 years for GIS / Cables, 60 years for AIS / OHLs)

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- Cost and complexity estimations for the future extension or reinforcement of any proposals any time during the asset’s operational life.
- Costs to consumers, including evidence of Willingness To Pay (WTP).

Ofgem does not require formal WTP surveys. Instead, ETOs may provide evidence that consumers or wider stakeholders value the outcomes materially enough to justify the costs. Acceptable evidence includes but not limited to:

- Demonstrated consumer bill benefits through system savings.
- Evidence that the project mitigates risks or avoids costs that would otherwise fall on consumers.
- Engagement-based insights showing acceptance or preference for solutions with environmental, community, or resilience benefits.

Where available, relevant industry or government WTP research (eg, on reliability, decarbonisation, or visual amenity).

Operability and Extendibility

A3.36 All Templates include extendibility cost elements for substations. ETOs should include the cost of the extension. Where the site is not extendible, ETOs should clarify this in their submissions and include the estimated cost of the additional build of a further substation.

A3.37 ETOs should also demonstrate how the proposed solution supports long-term system needs optionality (extendibility and spare capacity) and avoids asset stranding through:

- Whole-life cost comparison of future reinforcement scenarios.
- Extendibility assessment (eg, ability to add bays or circuits without major redesign).
- Spare capacity modelling against Future Energy Pathways (FEP)
- Supporting Evidence:
 - (1) Technical drawings showing space for expansion.
 - (2) Land acquisition plans and cost estimates.
 - (3) Scenario modelling outputs.
 - (4) Narrative explaining optionality benefits and risk mitigation.

A3.38 Where the ETO is choosing to utilise a solution which limits present or future operability or extendibility the ETO should highlight this and justify through CBA use.

Stage 3 – Project Assessment

Overview

A3.39 This section details the Project Assessment overview.

Progress to Project Assessment

- A3.40 If optioneering has materially changed, we will undertake a further review of the solutions proportional to the degree of change. If the optioneering solution remains PASE compliant, we will seek to expedite the process. Where the solution has changed to PASE Variant or Non-Compliant then we expect ETOs to submit additional evidence either through the Material Change Template, at Project Assessment submission or through an additional Need Case submission to ensure our review is early on in the design processes.
- A3.41 ETOs must submit a Template – Material Project Changes (as set out in Appendix 2) as soon as possible, ahead of any Project Assessment submissions.
- A3.42 Before progressing to Project Assessment, licensees must provide robust cost estimates supported by advanced procurement or tendering evidence to demonstrate confidence in pricing.
- A3.43 ETOs must refer to the 'Cost Information' section in Chapter 3 of the Re-opener Guidance and Application Requirements Document. Cost submissions as a minimum will be detailed in an RRP compliant format and will include all applicable Ofgem Asset Possibilities (OAPs)¹⁶ being used. Licensees may provide alternative breakdowns, with Bill of Quantities (BoQs)¹⁷ being the most applicable. Submissions which are not defined in accordance with the OAPs will be returned to the licensee for resubmission.

Main Cost Submission

- A3.44 Where licensees are justifying their costs we expect that clear cost drivers will be provided with associated factors clearly justified and evidenced.
- A3.45 The ETO must provide a breakdown of all costs and cost schedules associated with the project in spreadsheet form. This main cost spreadsheet may include a summary tab of the entire project construction costs and separate tabs/sheets with a cost disaggregation for each asset type (eg overhead line). These high-level costs may be indexed to supporting spreadsheets (or tabs in the same spreadsheet) to show the calculations and assumptions that have been used (including relevant units, price bases and time profiles). These supporting spreadsheets may cross refer to any supporting contract terms and quotes, studies, reports or other relevant documents that provide the evidence base.

¹⁶ Standardised asset categories used in the Business Plan Data Tables to classify and benchmark Transmission Owner costs and volumes. All ETO submissions must map project costs to the appropriate OAP to ensure consistent regulatory assessment.

¹⁷ A detailed, itemised list of all asset components and measurable works required for a project, including quantities and units, used to support consistent cost estimation, benchmarking, and mapping to OAP.

Any source data from the contractor may be provided to Ofgem in original format as supporting data. This may include, but is not limited to:

- Unredacted supplier quotations or tender returns (eg unit rates, bills of quantities);
- Detailed contractor cost build-ups showing labour, plant, and material assumptions;
- Original schedules of rates or pricing schedules submitted during procurement;
- Supporting technical specifications or method statements used to justify costs;
- Manufacturer or vendor datasheets directly underpinning pricing assumptions.

Major Projects Output Delivery Incentive

A3.46 The Major Projects ODI-F is a financial incentive designed to reward timely or early delivery and penalise late delivery of strategically important transmission projects, and it applies to Load Re-opener outputs where Ofgem designates the project as a Major Project during the Load Re-opener assessment process.

A3.47 In line with the Major Projects ODI-F Governance Document, ETOs must submit (where this is relevant) fully evidenced delivery plans, including the P50 or expected Delivery Date, its supporting methodology and assumptions, and any NESO-validated inputs where relevant.

A3.48 Submissions must clearly set out forecast project Totex, critical path activities, interdependencies, programme risks, and all factors informing the Target Delivery Date (TDD). All data must be internally consistent, traceable to underlying models, and aligned with RIIO-ET3 Final Determinations and associated guidance.

A3.49 Where an ETO submits information relevant to ODI-F mechanisms—such as a Penalty Exemption Period (PEP) request or an application related to a Fundamental Scope Change—it must provide project-specific evidence showing how the claimed event affects delivery. This includes updated delivery dates, critical path analysis, mitigations taken, and supporting documentation (eg contractor updates, planning evidence, land rights timelines, or supply-chain correspondence). ETOs must also explain how the new information relates to earlier assumptions, including whether impacts were foreseeable.

A3.50 As delivery confidence is central to setting and operating the incentive, ETOs must provide sufficiently detailed evidence of programme planning, delivery strategy, and risk management to demonstrate achievability of the Major Projects ODI-F Target Delivery Date. Ofgem may request further information

where necessary to assess deliverability or determine whether adjustments under Part D of Special Condition 4.8 are appropriate.

Detailed Stakeholder Justification

A3.51 Where applicable, licensees should provide clear analysis and any wider stakeholder supporting information to help the demonstration of the benefits of the proposed solution. This can contain a range of evidence that may include but is not limited to:

- Environmental and wider carbon impacts
- Deliverability and supply chain
- Planning, consenting and stakeholder acceptance

A3.52 This may include evidence such as:

- Land acquisition – we would expect to review evidence that licensees have engaged with landowners and established cost and programme impacts if this is being used as justification.
- Planning Consents – we would expect to review evidence that licensees have engaged with planning authorities ahead of consenting submission (where relevant) to understand local constraints and reflect this information in its optioneering.
- Connecting or existing infrastructure (consents and land): This applies when an ETO is seeking planning consent or land rights for a project and there are comparable cases where other third-party connectors or large infrastructure projects have successfully secured similar consents, land access, or equipment. In these situations, ETOs must provide a clear analysis explaining why they cannot achieve similar outcomes. The submission should include supporting evidence such as correspondence, planning authority responses, and any relevant documentation demonstrating efforts made and barriers encountered.
- Licensees who propose supply chain limitations as justification for not utilising PASE will need to confirm from the supply chain why this is not suitable, and in particular why the Advanced Procurement Mechanism (APM) has not addressed these issues.

Environmental Impacts

A3.53 We recognise that there are Environmental trade offs which licensees must consider. We expect licensees to utilise strategic investment and extendible designs as often as possible to minimise net environmental impacts. Where licensees' options are definitely influenced by environmental factors we expect justification to be included in the relevant sections.

A3.54 This may include but not limited to:

Guidance Load Re-opener Guidance and Submission Requirements Document

- Visual mitigations (including 3D renderings if required).
- Environmental land uses and mitigation requirements.
- Carbon and embodied carbon emissions.
- Protected environments species.
- Impacts of unextendable, un-reinforceable designs.

Planning, consenting and stakeholder acceptance

A3.55 ETOs should demonstrate that planning and stakeholder considerations have been fully assessed to reduce delivery risk and ensure timely project execution.

This may include:

- Planning risk analysis (timeline, likelihood of consent): analysis outlining expected timelines and likelihood of consent, supported by evidence of proactive engagement with relevant authorities and communities
- Stakeholder engagement: evaluation of potential impacts of stakeholder positions on project feasibility and identify measures to mitigate objections or delays.
- Community benefit evaluation: assessment of community benefits associated with the project, highlighting how these have been communicated and agreed upon during consultations.

Deliverability

A3.56 ETO's should include a clear delivery strategy and timeline. This may include but is not limited to:

- Project schedule with key milestones
- Procurement approach (objectives, risk management, value-for-consumer considerations)
- Third-party works and coordination arrangements (includes but not limited to NESO – outages, contractors and suppliers, third-party infrastructure owners – eg rail, motorway, telecoms, or utilities where crossings or shared corridors exist.)
- Supply chain availability assessment
- Delivery risk summary and mitigation plans
- Application of lessons learned from previous projects
- Supply chain capacity assessment (lead times, vendor availability)
- Outage planning optimisation studies
- Programme risk modelling (critical path analysis).

Appendix 4 – Definitions relevant to this document and the Load Re-opener only

Advanced Procurement Mechanism (APM)

The mechanism and allowance outlined in Special Condition 3.16 of the TO RIIO-3 licence.

AIS (Air-Insulated Switchgear)

Traditional open-air switchgear used in substations.

Atypical Extensions

Variant extensions beyond normal substation expansion thresholds.

Atypical Project

Connection project with forecast costs outside RIIO-ET3 volume driver thresholds.

Assessment Stages

Eligibility Assessment, Needs Case Assessment, and Project Assessment stages under the Load Re-opener.

Assessment Tracks

Three regulatory tracks determining scrutiny level based on maturity, complexity and PASE alignment.

Boundary Reinforcement

Reinforcement increasing transfer capability across system boundaries and/or maintaining SQSS compliance.

Cost and Output Adjusting Event (COAE)

Event under Special Condition 3.18 allowing amendment of outputs, delivery dates or allowances.

Centralised Strategic Network Plan (CSNP)

NESO-led plan identifying strategic system reinforcements.

Clean Power 2030 (CP2030)

Policy target requiring transmission capacity to support a decarbonised power system by 2030.

Double Bus Bar (DBB)

Substation configuration used as a PASE Primary Option for new substations.

Eligibility Assessment (EA)

Stage determining whether a project meets criteria and assigning Track 2 or Track 3.

Engineering Justification Paper (EJP)

Document required at Needs Case stage for Track 3 projects.

Electricity Transmission Design Principles (ETDP)

NESO principles guiding strategic and consistent transmission design.

FACTs (Flexible AC Transmission Systems)

Power system equipment enabling enhanced network control and stability.

Future Energy Scenarios (FES)

NESO's long-term GB generation and demand scenarios.

GIS (Gas-Insulated Switchgear)

Compact switchgear technology used particularly in constrained or urban sites.

Hot Wiring

PASE Variant Option technique allowing conductor upgrade on existing circuits.

Independent Technical Adviser (ITA)

External adviser monitoring design, cost and delivery of selected projects.

Load Board

Ofgem senior forum providing strategic steer on load-related projects.

Major Connection

Comparably sized infrastructure planned or built in proximity to a substation.

Major Projects ODI-F

Incentive mechanism rewarding timely delivery of strategically important projects.

Material Project Change

Significant change in cost, scope or timing requiring reassessment.

National Energy System Operator (NESO)

Organisation responsible for system planning, NOA and strategic design inputs.

Needs Case Assessment (NCA)

Track 3 stage validating need, justification and consumer value.

Network Options Assessment (NOA)

NESO's recommendation process for reinforcements and system options.

Outputs Delivery Incentive (ODI)

Incentive attached to performance against project delivery obligations.

P50 Delivery Date

Delivery date with 50% probability used for ODI-F parameters.

PASE (Pre-Approval of Solutions by Engineering)

Ofgem's framework for pre-approved engineering design solutions.

PASE Primary Option

Engineering design fully aligned with PASE principles.

PASE Variant Option

Adapted engineering design still consistent with PASE principles.

Pre-Construction Funding (PCF)

Refer the definition of Pre-construction Works (PCW) and Pre-construction Funding (PCF) in SpC 1.1 of the licence

Project Assessment (PA)

Stage determining efficient cost allowance and readiness for delivery.

Price Control Deliverable (PCD)

Defined licence output with associated allowance and delivery date.

RIIO-ET3

Electricity transmission price control period 2026–2031.

Satellite Substation

Where electrical network assets are located external to a continuous substation fence boundary, and has only feeders to solely one substation.

Security and Quality of Supply Standard (SQSS)

Guidance Load Re-opener Guidance and Submission Requirements Document

Transmission planning and operational standard.

Single Switch Mesh

PASE Variant substation configuration requiring justification depending on system role.

Strategic Investment

Forward-looking investment providing optionality for future system needs.

UIOLI (Use It or Lose It)

Mechanism requiring return of unspent allowances.

Whole-Life Cost Analysis (WLCA)

Assessment of lifetime cost including construction, O&M, carbon and extendibility impacts.