

Decision

RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

Publication date: 4 December 2025

Contact: Network Price Controls

Team: RIIO-3

Email: RIIO3@ofgem.gov.uk

The next set of price controls for the Electricity Transmission (ET), Gas Distribution (GD) and Gas Transmission (GT) sectors will cover the five-year period from 1 April 2026 to 31 March 2031 (RIIO-3). In December 2024, the network companies in these sectors submitted their RIIO-3 Business Plans for this period to Ofgem. We assessed these plans and published our Draft Determinations for consultation on 1 July 2025. Following consideration of consultation responses, this document and others published alongside it set out our Final Determinations for the RIIO-3 price controls.

© Crown copyright 2025

The text of this document may be reproduced (excluding logos) under and in accordance with the terms of the [Open Government Licence](#).

Without prejudice to the generality of the terms of the Open Government Licence the material that is reproduced must be acknowledged as Crown copyright and the document title of this document must be specified in that acknowledgement.

Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU.

This publication is available at www.ofgem.gov.uk. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

Contents

RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)	1
1. Introduction	4
Purpose of this document	4
Navigating the RIIO-3 Final Determinations documents	4
An overview of NGET’s RIIO-ET3 price control	5
2. Outputs and incentives	9
NGET Non-Load Related Expenditure Price Control Deliverables	9
3. Business Plan Incentive (BPI)	13
Stage A	13
Stage B	13
Stage C	16
4. Managing uncertainty	19
NESO Separation Re-opener	19
Property Re-openers	20
NLRE Major Projects Re-opener	23
Reactive Compensation Re-opener	25
NGET V-String Busbar Re-opener	27
Generation and Demand Connections Volume Drivers	28
5. Cost of service	31
Baseline allowances	31
Engineering assessment of NGET’s Business Plan	32
6. Innovation	38
Background	38
Final Determinations decision and Draft Determinations responses	38
7. Data and Digitalisation	39
Introduction	39
Appendix 1 – Summary of Engineering Review	41
Appendix 2 - Project Load Re-opener Eligibility	83

1.Introduction

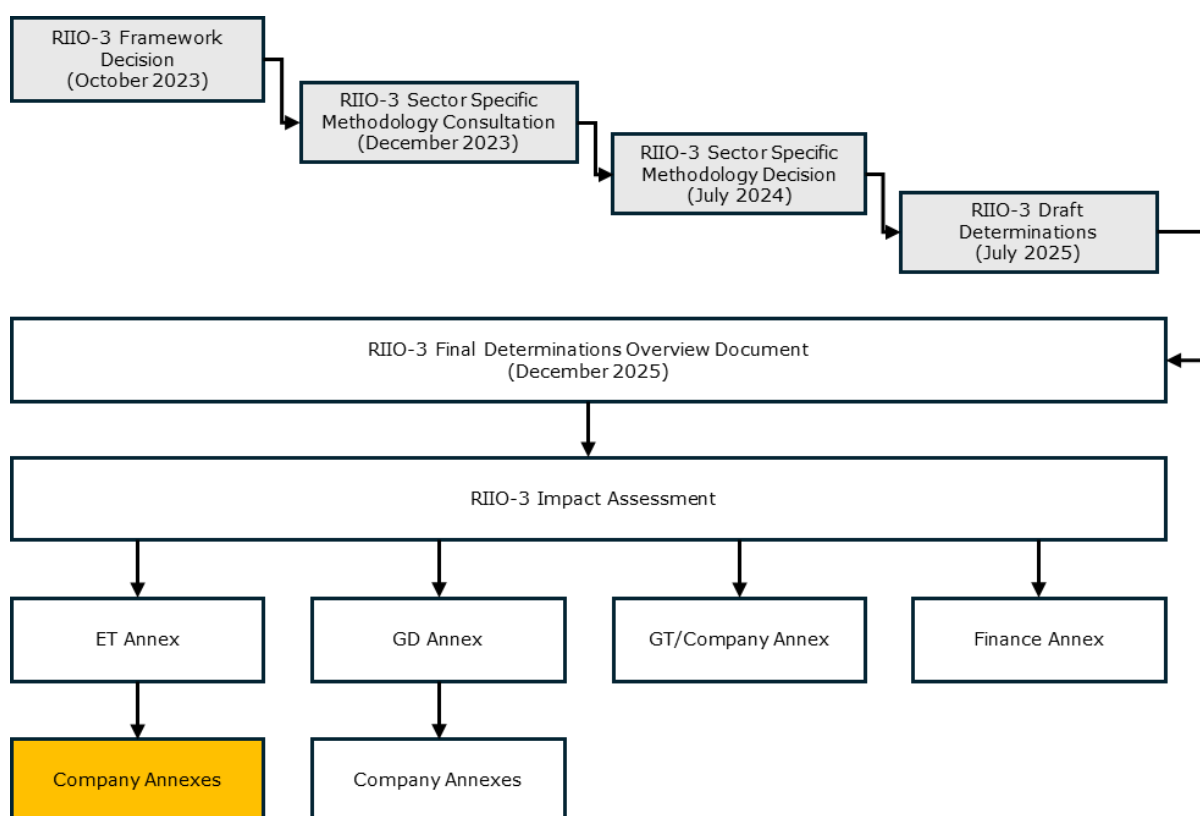
Purpose of this document

- 1.1 This document sets out our Final Determination positions for the price control areas that are specific to National Grid Electricity Transmission (NGET) covering the five-year period from 1 April 2026 to 31 March 2031 (RIIO-ET3). All figures in this document are in 2023/24 prices except where otherwise stated.

Navigating the RIIO-3 Final Determinations documents

- 1.2 The RIIO-3 Final Determinations are comprised of an Overview Document, a Finance Annex and sector annexes for ET, GD and GT. The sector annexes are underpinned by a RIIO-3 Impact Assessment, company annexes and, where relevant, technical annexes. This document is the NGET Annex. Figure 1 below maps all documents relevant to our suite of RIIO-3 Final Determinations, including the framework and methodology documents that have preceded it.

Figure 1: RIIO-3 Final Determinations map



- 1.3 Our Final Determinations have considered all previous feedback from network companies and other stakeholders, including the reports from the Independent Stakeholder Groups (ISGs) that were established to challenge each of the network companies on their stakeholder engagement and business plans, and the

feedback received in response to our RIIO-3 Draft Determinations. Further details on our approach to embedding the consumer voice is set out in the RIIO-3 Overview Document.

An overview of NGET's RIIO-ET3 price control

- 1.4 This section summarises the key aspects of NGET's RIIO-ET3 Final Determinations, setting out its cost allowances, outputs, uncertainty mechanisms (UMs), Business Plan Incentive (BPI) outcome and financing parameters.

Table 1: Allowed baseline totex (£m, 2023/24 prices)

Cost area	NGET submitted (£m)	Ofgem FD (£m)	Difference (£m)	Difference (%)
Core baseline totex	5,705.7	4,884.2	-821.4	-14.4%
Pre-construction funding	-	325.1	-	-
Network Innovation Allowance (NIA)	135.0	117.5	-17.5	-13.0%
Pass-throughs	-	760.7	-	-
Use-It-Or-Lose-It (UIOLI) allowances	-	1,099.5	-	-
Volume drivers	-	1,442.2	-	-
Ex ante allowances	-	8,629.3	-	-

Table 2: Outputs package

Output name	Output type	Sector(s)	Further detail
Network Asset Risk Metric	ODI-R ^{1 2}	ET, GD, GT	Overview Document
Physical Security	Re-opener and PCD	ET, GT	Overview Document
Cyber Resilience	Re-opener and PCD	ET, GD, GT	Overview Document

¹ODIs can be either financial (ODI-F) or reputational (ODI-R).

²ODI-R for NGET only – PCD and ODI-F elements replaced by non-load PCDs described in Chapter 2.

Output name	Output type	Sector(s)	Further detail
Environmental Action Plan and Annual Environmental Report	ODI-R and LO	ET, GD, GT	Overview Document
Strategic Innovation Fund (SIF)	UIOLI	ET, GD, GT	Overview Document
Network Innovation Allowance (NIA)	UIOLI	ET, GD, GT	Overview Document
Totex Incentive Mechanism (TIM)	ODI-F	ET, GD, GT	ET Annex
Reducing carbon emissions from operational transport	PCD	ET, GD	Overview Document
Accelerated Strategic Transmission Investment (ASTI)	ODI-F	ET	December 2022 Decision
Major Projects	ODI-F	ET	ET Annex
Innovative Delivery	ODI-F	ET	ET Annex
Connections	ODI-F	ET	ET Annex
Insulation and Interruption Gas (IIG) emissions	ODI-F	ET	ET Annex
Energy Not Supplied (ENS)	ODI-F	ET	ET Annex
SO:TO Optimisation	ODI-F	ET	ET Annex
Network Access Policy (NAP)	LO	ET	ET Annex
Landscape Enhancement Initiative (LEI)	UIOLI	ET	ET Annex
CSNP Coordination	LO	ET	ET Annex
New Infrastructure Stakeholder Survey (NISES)	ODI-R	ET	ET Annex
SF6 Asset Intervention Plan	PCD	NGET and SHET	ET Annex
Type 1 - Named Assets	PCD	NGET only	This document
Type 2 - Volume Assets	PCD	NGET only	This document
Type 3 - Circuit Breakers	PCD	NGET only	This document
Type 3 - Supergrid Transformers	PCD	NGET only	This document
Type 3 - Instrument Transformers	PCD	NGET only	This document
Type 3 - Civils	PCD	NGET only	This document
Type 3 - Disconnectors	PCD	NGET only	This document
Type 3 - Earth Switches	PCD	NGET only	This document

Output name	Output type	Sector(s)	Further detail
Type 3 - Through Wall Bushings	PCD	NGET only	This document

Table 3: UMs package

UM name	UM type	Sector(s)	Further detail
Business Rates (prescribed rates)	Pass-through	ET, GD, GT	Overview Document
Cost of debt indexation	Indexation	ET, GD, GT	Finance Annex
Cost of equity indexation	Indexation	ET, GD, GT	Finance Annex
Inflation Indexation of RAV and Allowed Return	Indexation	ET, GD, GT	Finance Annex
Ofgem licence fee costs	Pass-through	ET, GD, GT	Overview Document
Pension Scheme Established Deficit	Pass-through	ET, GD, GT	Finance Annex
Tax Review	Re-opener	ET, GD, GT	Finance Annex
Real Price Effects (RPEs)	Indexation	ET, GD, GT	Overview Document
Digitalisation	Re-opener	ET, GD, GT	Overview Document
Resilience	Re-opener	ET, GD, GT	Overview Document
Cyber Resilience	UIOLI and PCD	ET, GD, GT	Overview Document
NIS-R Cyber Resilience	Re-opener	ET, GD, GT	Overview Document
Co-ordinated Adjustment Mechanism (CAM)	Re-opener	ET, GD, GT	Overview Document
Decarbonisation and Environmental Policy (DEP)	Re-opener	ET, GD, GT	Overview Document
Pre-Construction Funding (PCF)	Re-opener and PCD	ET	ET Annex
Load	Re-opener	ET	ET Annex
Load	UIOLI	ET	ET Annex
CSNP-F	Re-opener	ET	ET Annex
Generation Connections	Volume driver	ET	ET Annex
Demand Connections	Volume driver	ET	ET Annex
Closely Associated Indirects (CAI)	UIOLI	ET	ET Annex
Business Support Costs (BSC)	Re-opener	ET	ET Annex

UM name	UM type	Sector(s)	Further detail
Non-Load	Re-opener	ET	ET Annex
Independent Technical Adviser	Pass-through	ET	ET Annex
Community Benefits	Pass-through	ET	ET Annex
Entry and exit connection asset allowance	Volume Driver	ET	ET Annex
Carbon Compensation	UIOLI	NGET and SPT	ET Annex
NESO Separation Costs	Re-opener	NGET only	This document
NLRE Major Projects	Re-opener	NGET only	This document
V-String Busbar	Re-opener	NGET only	This document
Reactive Compensation	Re-opener	NGET only	This document
Property	Re-opener	NGET only	This document
Tyne Crossing	Re-opener	NGET only	This document

Table 4: BPI outcome

BPI Stage	NGET outcome (Bps RoRE)	Further detail
Stage A	Pass	Overview Document and this document
Stage B	1.4	Overview Document, ET Annex and this document
Stage C	-1.3	Overview Document and this document

Table 5: Financing parameters

Area	NGET outcome	Further detail
Notional Gearing	55%	Finance Annex
Cost of equity	5.70%	Finance Annex
Cost of debt (semi-nominal)	5.31%	Finance Annex
Weighted average cost of capital (semi-nominal)	5.49%	Finance Annex
Illustrative RoRE ranges (post RAMs)	2.05%-9.61%	Finance Annex

2. Outputs and incentives

- 2.1 This chapter sets out our decisions on outputs and incentives that are specific to NGET, including bespoke proposals submitted through its business plan.

NGET Non-Load Related Expenditure Price Control Deliverables

Purpose: To provide NGET with funding to intervene on its primary and light current plant during RIIIO-ET3 and to ensure accountability for delivery.

Benefits: The NLRE PCDs provide NGET with a flexible funding mechanism for NLRE interventions without exposing consumers and NGET to the excessive risk of under- or overfunding.

Background

- 2.2 In our Draft Determinations for Non-Load Related Expenditure (NLRE) interventions we had proposed to continue to use the NARM Funding Adjustment and Penalty Mechanism for all non-load related schemes delivering lead asset replacement or refurbishment. For interventions covered by NARM, we proposed to make a series of reductions to planned intervention volumes and Baseline Network Risk Outputs (BNRO) submitted in NGET's business plan. We also proposed to set PCDs for certain cost and output areas where there was significant uncertainty about the volumes that are needed to be delivered.
- 2.3 In its response, NGET disagreed with our proposed reductions and provided a significant amount of additional information and evidence on its planned interventions. Having reviewed this and undertaken bilateral engagement, we have identified some concerns about the robustness and consistency of information relating to its asset risk management systems. In particular:
- The information provided in NGET's plan and subsequent submissions does not give us a sufficiently clear understanding of NGET's approach to risk management and prioritisation of asset health interventions. We therefore are unable to have full confidence that specific interventions that NGET has set out in its business plan for the RIIIO-ET3 period are appropriate and represent an efficient way to manage asset health risk.
 - Our lack of clarity about NGET's asset data to risk score relationship means that we cannot be sufficiently confident that a mechanistic risk target would be appropriate in NARM. Under these circumstances, applying the NARM Funding Adjustment and Penalty Mechanism to NGET could expose both consumers and NGET to an excessive risk of over- or underfunding.
-

- 2.4 Through our detailed engineering review of NGET's proposed intervention plan and subsequent discussions with NGET, we have considerably mitigated the risk relating to the first of these concerns. We are now satisfied that NGET's revised NLRE plan represents its current "best view" of the interventions that are likely to be needed over the RIIO-ET3 period. We are therefore comfortable with providing NGET with funding that will allow it to carry out the interventions in line with its plan. However, we are mindful that there remains significant uncertainty in the plan, and it would be prudent to allow NGET some flexibility in delivery and for the funding arrangements to take account of this uncertainty so that consumers interests are appropriately protected.
- 2.5 To mitigate the second of our concerns, we have decided to implement a tailored PCD arrangement to protect consumers' interests. This will ensure that funding provided through RIIO-ET3 is more closely aligned with the benefits delivered. This PCD, described in the next section, would only provide funding for interventions that are delivered, with some flexibility for substitution between interventions allowed subject to conditions.
- 2.6 We recognise that the PCD mechanism for NGET's NLRE interventions in the RIIO-ET3 period is a departure from our preferred NARM-based approach that we have decided to implement for other TOs. However, we believe that this departure is justified given our concerns set out above. Our intention is for this arrangement to be temporary and for a more consistent approach to be adopted for all TOs at the next price control review.
- 2.7 While we have decided to accept NGET's intervention plan in full, we are clear that NGET is ultimately responsible for managing the health of assets on its network in line with its broader regulatory and statutory obligations. We expect it to use the flexibility offered by the PCD to target its interventions using an appropriate risk-based approach in line with industry best practice.

Final Determinations decision and rationale

Summary of Final Determinations decision

Design	Final Determination	Draft Determination
PCD type	We are using three types of PCD: Type 1 – Named Assets Type 2 – Volume of Assets Type 3 – Combination of Named and Volume	N/A
Output to be delivered	See Table 6	N/A

Design	Final Determination	Draft Determination
Baseline cost allowance	£1,911.9	N/A
Reporting to stakeholders	Annual reporting through the Regulatory Reporting Packs (RRPs)	N/A
Delivery date	31 March 2031	N/A
Ability to change PCD during the price control period	Specific PCDs at Authority discretion.	N/A
Applied to	NGET	N/A
Associated document	NGET redacted information document.	N/A

NLRE PCDs

2.8 We have decided to apply three types of PCDs for NGET's NLRE interventions. These PCDs have been designed to balance the need for delivery accountability with the need to ensure that there is sufficient flexibility to allow NGET to target its interventions effectively.

2.9 The three types of PCD are:

- Type 1 Named Assets PCD. This is an evaluative PCD, with funding linked to the delivery of named asset interventions within each asset class. This type of PCD is used where the asset classes and associated interventions are relatively heterogeneous in terms of their cost but have a high degree of uncertainty regarding the need for intervention.
- Type 2 Volume PCD. This is a mechanistic PCD, with funding tied to the volume of interventions delivered based on common unit costs. This is used for relatively homogeneous asset types and associated interventions where there is a clear correlation between the type of intervention and the efficient cost of delivering that intervention.
- Type 3 Combi PCD. This is an evaluative PCD, with some funding tied to the delivery of named assets, but there is also a volume-driven funding element based on standard unit costs for assets that meet certain conditions. This PCD is used for asset classes that share some characteristics with assets included in Type 1 and Type 2 PCDs.

Table 6: NGET RIIIO-ET3 NLRE PCDs

Type 1 - Named	Type 2 - Volume	Type 3 - Combi
Substation cables	Reactors	Circuit Breakers
OHL reconductoring	Protection & Control	SuperGrid Transformers (SGTs)
LVAC and Diesel Generators	OHL Fittings	Through Wall Bushings
Substation Estate (Years 1-2)	Earthing and Auxiliary Transformers	Instrument Transformers
Substation Efficiency	Reactive Compensation - baseline	Civils
	Post Insulators	Earth Switches
		Disconnectors

3. Business Plan Incentive (BPI)

3.1 This chapter sets out NGET's Final Determinations BPI results, including some of the key points raised by stakeholders, and our responses to these points. Where the results have changed from that published in the Draft Determinations, we have set out our reasoning for this change. For information on the overall results for the BPI for all companies, see the Overview Document.

Table 7: Final Determinations BPI results

BPI Stage	Draft Determinations result	Final Determinations result	Further detail
A	Pass	Pass	This chapter for specific views on the Final Determination result.
B	5.7 bps	1.4 bps	This chapter for specific views on the Final Determination result.
C	-2.6 bps	-1.3 bps	This chapter for specific views on the Final Determination result.
Total bps	3.1 bps	0.1 bps	
Total 5-year monetary equivalent, £m	13.3	0.6	

Stage A

3.2 Through the consultation we received no information to alter our position and therefore we have decided to implement our Draft Determinations position that NGET met all the minimum requirements, as set out in the Business Plan Guidance, and has passed Stage A of the BPI.

Stage B

3.3 The overall Final Determinations result for NGET is 1.4 bps, which corresponds to the weighted average of the outcomes from comparative (-0.2 bps) and bespoke (1.6 bps) assessment, rounded to one decimal point. The following provides details on the Final Determinations result for each cost category including the rationale for change from the Draft Determinations results.

Comparatively assessed costs

3.4 The table below sets out the comparatively assessed costs and their weightings within the overall Stage B BPI assessment score.

Table 8: Final Determination BPI scoring for comparatively assessed costs by network

Comparatively assessed cost category	Weighting	Efficiency benchmark	Efficiency Score	BPI reward/penalty (bps)
Insurance - onshore	2.0%	1.1	1.3	-0.2
Total	2.0%	1.1	1.3	-0.2

Final Determinations Rationale and Draft Determinations responses

3.5 In our Draft Determinations, Closely Associated Indirects (CAI), Business Support Costs (BSC) and Insurance offshore costs categories were assessed on a comparative basis. For our Final Determinations they are now assessed as bespoke costs. This is to be consistent with the updated cost assessment methodologies outlined in Chapter 5 of the ET Annex. We received two responses on the Stage B assessment results for NGET which were broadly supportive, and NGET agreed with the outcome of the comparative assessment at our Draft Determinations.

Bespoke costs

3.6 The table below sets out bespoke costs assessed. We then set out the Final Determinations rationale and the Draft Determinations responses.

Table 9: Final Determinations BPI scoring for bespoke cost activities

Bespoke Cost	Weighting	BPI reward/penalty (bps)
Closely Associated Indirects (CAI): Operational training	2.8%	0.6
Network Operating Costs	21.1%	0.0
Non-operational Capex	2.1%	0.4
Other costs	0.9%	0.1
Business Support Costs (BSC): IT & Telecoms	2.2%	0.0
Non-operational Capex: IT & Telecoms	4.4%	0.0
Network Operating Costs: Operational Technology	4.8%	0.0
Load Related Capex: Local Enabling (Entry)	2.2%	0.1
Load Related Capex: Local Enabling (Exit)	0.2%	0.0
Load Related Capex: Wider Works	5.2%	0.0
Load Related Capex: LRE - Local Enabling (Exit - sole-use)	0.1%	0.0

Bespoke Cost	Weighting	BPI reward/ penalty (bps)
Load Related Capex: LRE - Local Enabling (Entry - sole-use)	0.0%	0.0
Non-Load Related Capex: Replacement	20.8%	-4.2
Non-Load Related Capex: Refurb Major	1.3%	0.0
Non-Load Related Capex: Refurb Minor	1.2%	0.0
Non-Load Related Capex: ESR	0.3%	0.0
Non-Load Related Capex: Spares	2.0%	0.0
Other costs: Cyber Security	4.5%	0.0
Network Operating Costs: Data & Digitalisation	0.7%	0.1
Non-operational Capex: Data & Digitalisation	5.1%	1.0
Business Support Costs: Data & Digitalisation	0.3%	0.1
Insurance - offshore: Business support Costs	0.2%	0.0
Closely Associated Indirects	9.5%	1.9
Business Support Costs	6.8%	1.4
Total	98.5%	1.6

Final Determinations Rationale and Draft Determinations responses

- 3.7 We have amended the bespoke assessment and added three cost categories; CAI, BSC and Insurance costs related to offshore. The CAI and BSC stage B assessment was comparative at our Draft Determinations. However, the baseline modelling approach has been amended and places a higher weighting on the TO-specific analyses. Therefore, we consider it appropriate to assess these costs based on their own merit. Following feedback to our Draft Determinations on the cost assessment of Insurance costs, we have agreed that onshore and offshore Insurance costs differ and should be treated differently, and we conducted a qualitative review of offshore insurance costs. For CAI, BSC and Insurance offshore, NGET has received a reward against all three bespoke assessment criteria as our analysis resulted in costs being allowed in full for each category.
- 3.8 In its response, NGET did not agree with the bespoke assessment of the entirety of load and non-load capex, proposing this should be split into bespoke and comparative assessments where 42% of costs were benchmarked. This view was based on its interpretation of our Draft Determinations ET Annex which listed the percentages of costs which were compared against either RIIO-ET3 benchmarks or both RIIO-ET2 and RIIO-ET3 benchmarks. We have retained a bespoke

assessment of load and non-load capex. This is because our assessment has been carried out on a bespoke basis, considering the benchmarks in their application to the costs in question in combination with qualitative assessment, which considers the underlying engineering rationale for these costs. The comparative assessment would fail to reflect the qualitative aspect of how benchmarks were applied, given the diverse nature of each TO's portfolio of work.

- 3.9 There were no changes to scores against the criteria compared with our assessment in our Draft Determinations. The variation in overall scores is due to adjustments to the cost weights resulting from the reprofiling of schemes, changes to exclusions and adjustments to needs case approvals.

Stage C

- 3.10 The below section sets out the Final Determinations result and rationale for the Clarity and Business Plan Commitments assessments for Stage C of the BPI.

Clarity

Final Determinations assessment result: 0 bps

- 3.11 In its Draft Determinations response, NGET requested that both areas that received 'poor' ratings (clarity of information to support the value to consumers, and the coherence and justification of its plan) be revisited and upgraded to 'acceptable'. After reflection, we consider our Draft Determinations position was correct and justified.
- 3.12 NGET pointed to the difficulties of producing biodiversity net gain (BNG) estimates and that it engaged in bilateral conversations via supplementary questions to provide us with further information. NGET commented on our assertion that the narrative around NARM and asset management plans lacked a clear thread, to which NGET replied that its NARM approach is outlined across its Draft Determinations response. While valuing these interactions, the lack of this information in the original business plan and coherence made for a business plan with limited clarity.
- 3.13 We have therefore decided to maintain our Draft Determinations position that NGET scored 0.0 bps for the BPI Stage C Clarity assessment. Further rationale for this result is set out in our Draft Determinations - NGET Annex.

Business Plan Commitments

Final Determinations overall assessment result: -1.30 bps

Outcome: Infrastructure fit for a low-cost energy transition

Final Determinations assessment result: 0 bps

- 3.14 In our Draft Determinations, we penalised all TOs for the 'infrastructure fit for a low-cost energy transition' commitment outcome.
- 3.15 In their responses to our Draft Determinations, all TOs raised the high level of uncertainty going into RIIO-ET3. In particular, NGET raised that our assessment of its delivery plans deemed them to be "at least in line with what is currently delivered under RIIO-2", which is the description of the 'acceptable' rating. We also agreed with NGET that it is in the consumer's interest for plans to be balanced between the baseline and the pipeline, which will shield the consumer for paying for underdeveloped investments, and which is displayed in NGET's plans.
- 3.16 Therefore, we have decided that all TOs be assigned an 'acceptable', and therefore financially neutral, score against this outcome.

Outcome: Secure and resilient supplies

Final Determinations assessment result: -1.30 bps

- 3.17 At Draft Determinations, NGET was rated as 'acceptable' under all criteria in this outcome apart from in the stretching performance criterion, which was rated as 'poor', leading to a penalty in this area.
- 3.18 NGET requested that we revisit its position to provide a 'poor' rating across a number of areas within the 'stretching performance' criterion. We have not found grounds to upgrade the 'poor' rating, due to regressive targets, general ambiguous commitments around remaining competitive, the NLRE issues identified in Chapter 5 and the exclusion of asset-specific data provisions which have been progressing in RIIO-ET2.
- 3.19 As such, we maintain our position at Draft Determinations which produced a 'poor' rating for secure and resilient supplies commitments.

Outcome: High quality of service from regulated firms

Final Determinations assessment result: 0 bps

- 3.20 At Draft Determinations, NGET was rated as 'acceptable' under all criteria in this outcome.
- 3.21 NGET requested Ofgem revisit its position to provide an 'acceptable' rating across a number of areas within the 'stretching performance' criterion.

- 3.22 An aspect explicitly raised by NGET was our disapproval of using the Quality of Connections Survey ODI-F scores as a success metric, given our RIIIO-3 Sector Specific Methodology Decision (SSMD) position to remove the incentive for RIIIO-ET3. NGET said that our SSMD position on the incentive did not include a clear statement of intent to remove it. We disagree. Our SSMD stated, "We have therefore decided to develop a new incentive structure to drive faster connections times and a more effective overall connections process, which will replace the two existing connections ODI-Fs."
- 3.23 While NGET's work to address diversity concerns is commendable, we do not consider it appropriate to consider its commitment to be 'outstanding'. This is because it has failed to consider the consumer value in its business plans.
- 3.24 Overall, its lack of ambition and tendency toward business as usual (BAU) has limited NGET's ability to be rewarded in this area. As such, we maintain our position at Draft Determinations which produced an 'acceptable' rating.

4.Managing uncertainty

4.1 This chapter sets out our decisions on UMs that are specific to NGET, including bespoke UM proposals submitted through its business plan.

NESO Separation Re-opener

Purpose: To enable NGET to recover potential costs from the separation of NESO from the National Grid Group.

Benefits: Opportunity for NGET to recover efficient costs incurred following NESO separation.

Final Determinations summary

Design	Final Determination	Draft Determination
UM type	Re-opener.	Same as FD.
Scope	Recover any efficiently incurred costs due to the separation from NESO.	Same as FD.
Authority triggered	No.	Same as FD.
Network company re-opener window	October 2026, April 2027.	April 2027.
Materiality threshold	None.	Same as FD.
Applied to	NGET.	NGET.

Final Determinations rationale and Draft Determinations responses

UM type

4.2 We have retained this mechanism as a re-opener in line with NGET's proposal due to the uncertain nature of the future consequential costs of NESO business separation.³ We did not receive any opposition to this design.

Scope

4.3 We have retained the scope of this re-opener and we did not receive any representation challenging its design. We expect NGET to demonstrate

³ The NESO became operationally independent from National Grid Group on 1 October 2024. Nonetheless, NESO will rely on National Grid back-office, operational and property services under commercial agreements until October 2026, resulting in consequential costs for NGET. These costs may arise because the NESO will no longer utilise National Grid Group shared services function, generating consequential costs for NGET.

proactiveness in mitigating the impact of consequential costs underpinned by a clear, detailed plan. We also expect NGET to clearly set out the need for consequential costs in addition to those within the scope of the recovery mechanism implemented for RIIO-ET2.⁴

Network company re-opener window

- 4.4 In a change from Draft Determinations, we have decided to include an earlier re-opener window, October 2026, in addition to April 2027. NGET requested the re-opener window be brought forward on the basis that the conclusion of the Transition Service Agreement between NGET and NESO in late 2026 implied that a submission could be made prior to the proposed April 2027 timeframe. We agree and have made this change to the re-opener.

Materiality threshold

- 4.5 We have not utilised a materiality threshold due to the amalgamated nature of the costs to be recovered and the single submission expected from NGET under this re-opener.

Property Re-openers

Purpose: To enable NGET to seek funding for efficient costs for investments related to its property portfolio. This will encompass two separate re-openers, one for confidential works and one for non-confidential works.

Benefits: Provides a range of opportunities for NGET to make its property function more efficient and or increase the properties utility.

Final Determinations summary

Design	Final Determination	Draft Determination
UM type	Re-opener.	Same as FD.
Scope	Alpha Re-opener: <ul style="list-style-type: none">• Eakring Training Centre - will include refurbishments and extension to accommodation blocks.• Bradwell OHL Training Facility - will include works on the OHL to configure the line for training and safety. No towers shall be removed as a result of this work.	Will cover the following applicable projects: Eakring Training Centre; substation building interventions; training and development; and workspace and logistic investments.

⁴ [Funding National Grid's consequential costs from the separation of the Electricity System Operator | Ofgem](#)

Design	Final Determination	Draft Determination
	<ul style="list-style-type: none">Substation Operational Estate - will cover all costs for repairs, refurbishment and wellbeing for substation buildings. Beta Re-opener: <ul style="list-style-type: none">[REDACTED]	
Authority triggered	No.	Same as FD.
Network company re-opener windows	Alpha: April 2027, April 2028 and April 2029. Beta: April 2027 and April 2028.	April 2028 to March 2029.
Materiality threshold	None.	Same as FD.
Applied to	NGET.	NGET.
Associated document	NGET redacted information document.	N/A

Final Determinations rationale and Draft Determinations responses

Background

- 4.6 NGETs property portfolio of investments were either partially or not justified in Draft Determinations. NGET provided more information in its consultation response, and this clarified a number of our concerns.
- 4.7 As a result, we have decided to provide additional baseline funding for a number of property investments. These represent critical asset replacement and some early preliminary works in the first three year of RIIO-ET3. We do not expect NGET to claim these costs again as part of the re-opener. We are satisfied that NGET has evidenced how this will support immediate and necessary works in the near term.
- 4.8 This funding, and the re-opener itself, is split into two streams Alpha and Beta. The Property Re-opener Alpha is for non-confidential works, and the Property Re-opener Beta is for confidential works.
- 4.9 We will work with NGET ahead of re-opener windows during RIIO-ET3 to ensure that its submissions for the re-openers address the concerns we raised in Draft Determinations.
- 4.10 With regards to NGET’s development works, we agree in principle with the needs case for all the interventions proposed. However, we do not agree that the

solutions presented at this stage are justified, similarly we do not accept the costs at this stage are well justified. We expect NGET to consider the options it is presenting both individually and more widely between each investment in this re-opener to ensure they are coherent and robust ahead of submission.

UM type

- 4.11 Our view is that re-openers are necessary to manage the uncertainty NGET face in its property investments during RIIIO-ET3. NGET has provided additional information on a range of investments that highlighted the needs cases for investments which we had not agreed to in full, or in some cases in part, at Draft Determinations. For several projects, NGET made revisions to its baseline request and in some cases proposed new investments.
- 4.12 For the majority of investments, we agree with the needs case in principle. We do however retain concerns in relation to the scope of some works and associated costs estimates. Therefore, using a re-opener will enable us to reevaluate the full need case and scope at the time of submission.

Scope

- 4.13 Property Re-opener Alpha addresses the following tranche of works:
- Eakring Training Centre - will include refurbishments and extension to accommodation blocks.
 - Bradwell OHL Training Facility - will include works on the OHL to configure the line for training and safety. No towers shall be removed as a result of this work.
 - Substation Operational Estate - will cover all costs for repairs, refurbishment and wellbeing for substation buildings.
- 4.14 Property Re-opener Beta includes works of a similar nature, but given the sensitivity of these works the details are redacted.

Network company re-opener windows

- 4.15 NGET is at various stages of development for these works, as such we have included multiple re-opener windows to manage the different development time scales. NGET can select the window which is most appropriate, but we expect NGET to notify us of the dates it expects to submit an application in advance of submission.

NLRE Major Projects Re-opener

Purpose: To enable NGET to seek funding for efficient costs for investments related to its Major Projects portfolio.

Benefits: Provides NGET opportunity to request funding to address non-load related issues on Major Projects.

Final Determinations summary

Design	Final Determination	Draft Determination
UM type	Re-opener.	N/A.
Scope	<p>This re-opener is limited to the following 7 Major Projects:</p> <ul style="list-style-type: none">• Fawley Substation & Fawley-Chilling Cable Replacement• Severn Crossing Cable Replacement• Barking Substation Replacement• St Johns Wood 275kV Rationalisation• Kirkstall A Skelton Grange Cable Project• West London Cable Strategy• LPT2 Circuit Decommissioning Project <p>Each project has received PCF for these works. The individual scopes of work are referenced in NGET's Redacted Information Document. As NGET approach its re-opener window this will be considered against the original scope. While we accept the scope of each project may undergo changes, we expect NGET to provide justification for any scope changes so that we are clear on what the PCF has, or has not, delivered.</p>	N/A.
Authority triggered	No.	N/A.
Network company re-opener windows	April 2027, April 2028 and April 2029.	N/A.
Applied to	NGET.	N/A.
Associated document	NGET redacted information document.	N/A.

Final Determination rationale and Draft Determination responses

Background

- 4.16 In our Draft Determinations we raised a range of concerns regarding NGET's proposals for Major Projects. In particular, these related to the reported asset condition, which did not align with the scale or timing of the intervention proposed. This alignment issue generally appeared as assets being in a better health than the Engineering Justification Paper (EJP) presented. On a more limited number of projects we did not agree with NGET's proposed optioneering.
- 4.17 NGET's consultation response on these projects noted similar issues with regards to its portfolio assets. Broadly, we accept that many of these interventions are needed, despite the reported asset health alignment issue. This is because the condition reported in the EJPs appears to provide a more robust and accurate description of the site condition than the Portfolio EJPs.
- 4.18 Our decision, therefore, is to introduce a re-opener for NGET to request funding for the proposed site interventions. Ahead of the re-opener submissions we intend to work with NGET to address the reporting alignment issue and to ensure the optioneering is robustly evidenced.

UM type

- 4.19 We have decided that a re-opener is appropriate because of the varied nature of NGET's NLRE Major Projects. This mechanism provides NGET with an opportunity to request additional funding and ensures that scopes and cost allowances are accurate and efficient. Ahead of submission, we expect NGET's asset health scoring to reflect the actual condition of assets on site. This will ensure that they are reported in a condition which is fitting of the intervention proposed. This re-opener will give NGET sufficient time to address any reporting concerns ahead of submission.

Scope

- 4.20 The scope of each Major Project covered by this re-opener is included in NGET's Redacted Information Document. Broadly these are replacement works as a result of Non-Load drivers.
- 4.21 NGET will be permitted to submit an Optioneering Assessment for submissions under this re-opener and then a Project Assessment. Our review of the Optioneering Assessment will inform the option for the subsequent Project Assessment.

- 4.22 For the Project Assessment, we expect NGET to disclose any design changes that incur additional cost, and to isolate and justify those costs. We also expect NGET to have a clear cost breakdown for each investment, and a submission which defines NGET's costs in agreement with the Ofgem Asset Possibilities (OAP).

Network company re-opener windows

- 4.23 We have decided to introduce a month-long window in each of April 2027, 2028 and 2029 to receive re-opener submissions.
- 4.24 We think this frequency of re-opener windows is essential to ensure the efficient processing of the submissions in this important area.

Reactive Compensation Re-opener

Purpose: To enable NGET to seek funding for efficient costs for investments related to its Reactive Compensation portfolio.

Benefits: Provides an opportunity for NGET to fund interventions and/or new builds of Reactive Compensation works.

Final Determinations summary

Design	Final Determination	Draft Determination
UM type	Re-opener.	N/A.
Scope	For interventions and new builds of reactive compensation when requirements are selected by NESO. This will include (but not limited to): <ul style="list-style-type: none">• Fixed Reactive Control• Dynamic Reactive Control• Where required, Synchronous Machines• Where required, other NESO required reactive control replacements• Where required, decommissioning of Reactive assets	N/A.
Authority triggered	No.	N/A.
Network company re-opener windows	April 2028.	N/A.
Applied to	NGET.	N/A.

Design	Final Determination	Draft Determination
Associated document	NGET redacted information document.	N/A.

Final Determination rationale and Draft Determination responses

Background

- 4.25 In our Draft Determinations we assessed NGET's proposal for funding reactive compensation works to be Partially Justified to Not Justified. This is because it had limited system data to support the request, and limited design and cost information. There were a range of portfolio interventions proposed which had similarly limited need case data to support the investment proposed.
- 4.26 Having taken account of NGET's consultation response and subsequent discussions with both NGET and NESO, we retain our view that the original investments presented in its Business Plan are underdeveloped across multiple assessment criteria. This prevents us providing baseline funding at this stage. However, we do recognise that there is a clear, if not well defined, need for interventions on both a NLRE and LRE basis.
- 4.27 Our decision is to therefore provide a re-opener for these works, so funding can be considered once NGET and NESO have determined the optimal design of the reactive compensation works on the network.

UM type

- 4.28 We have decided to use a re-opener for the NGET's reactive compensation works. Given the heterogeneity of the projects and the external design requirements from NESO it is not feasible, or desirable, to use an automatic funding approach.
- 4.29 NGET will be required to engage with NESO to ensure its designs reflect wider system needs and are prioritised in a manner most beneficial to the consumer, based on NESO's requirements and analysis.

Scope

- 4.30 We expect NGET to have sufficiently engaged NESO as to the NESO's system requirements for reactive compensation works during the development of its submission. We may also engage with NESO to verify the data presented to us. This engagement will enable NGET to include in its submission the NESO driven requirements where there are asset replacements/refurbishments required.
- 4.31 There are a range of asset types which could be covered in this re-opener which we have not listed. This is because we recognise NESO and NGET may provide

alternative options to replace individual assets, either through multiple component forms or in aggregate at the same or different sites.

Network company re-opener windows

- 4.32 We have decided to set an April 2028 re-opener window only because the impact of any delays may result in consumer detriment. An early window will minimise the impacts of delays as through a defined target date this will ensure there is a time incentive for NESO and NGET to agree scopes.

NGET V-String Busbar Re-opener

Purpose: To enable NGET to seek funding for efficient costs for investments related to its V-String Busbar portfolio.

Benefits: Provides a range of opportunities for NGET to improve and address asset health concerns on its V-String Busbar.

Final Determinations summary

Design	Final Determination	Draft Determination
UM type	Re-opener	N/A
Scope	The replacement of V-String Busbars at a range of sites where they are installed. The scope of which is to be defined post conclusion and analysis of the five trial sites selected for intervention.	N/A
Authority triggered	Yes - on completion of trial site works by NGET.	N/A
Associated document	Redacted Information Document	N/A
Applied to	NGET	N/A
Associated document	NGET redacted information document.	N/A

Final Determination rationale and Draft Determination responses

Background

- 4.33 NGET provided additional information in its consultation response to our Draft Determinations on its proposed Substations Overheads paper (V-Strings Busbar). This covered a range of condition issues and clarifications around its proposed trial sites and then how its wider fleet of interventions would be delivered.
- 4.34 In our Draft Determinations we rejected funding for V-String Busbars in both baseline and pipeline requests. This is because NGET did not provide sufficient
-

evidence regarding the need case, scope of intervention, cost or deliverability of the proposed works. This is in part because, in RIIIO-ET2, NGET was funded to undertake a specific trial which was not delivered. NGET selected an alternative site which did not provide the representative data for the wider portfolio. Given the limited data available to us, we proposed a combination of baseline funding for trial works and a re-opener for the remaining portfolio.

UM type

- 4.35 Given the heterogeneous nature of NGET's proposed interventions, the lack of detailed scope (at this stage) and the uncertainty regarding the delivery of the trial works; we have decided that a re-opener is the appropriate mechanism for V-String Busbar replacements not covered in the baseline allowance.

Scope

- 4.36 NGET is funded to deliver five trial sites for V-String Busbar replacements through its baseline allowance. After these trials are delivered and the scopes and costs have been analysed by NGET, it will then be able to provide the scope and cost for the remaining V-String Interventions on the fleet of assets it originally proposed for intervention.

Authority triggered

- 4.37 We have decided to have an Authority triggered re-opener, which we will trigger when NGET has sufficiently demonstrated that the five trial sites have been completed. At this point, there will be sufficient scope, cost and deliverability data to enable our review.

Generation and Demand Connections Volume Drivers

Purpose: To deliver network capacity to accommodate the changing volumes of connection of generation and demand customers.

Benefits: Providing flexible funding for the network companies to invest in the transmission network, enabling them to respond to uncertain future needs for connecting new generation or demand customers.

- 4.38 TOs are required to provide connection offers within specific timeframes and ensure the transmission network meets technical standards. Customers connecting to the network are either generators or demand users. Generation connections often necessitate substation upgrades and network reinforcements, while demand connections may involve new infrastructure at Grid Supply Points

(GSPs). Given the customer-driven nature of these projects, future investment needs are uncertain.

- 4.39 To manage this, we have decided to retain and update the RIIO-ET2 volume driver mechanisms. These mechanisms will apply to projects with uncertain needs but predictable, repeatable, and measurable work, allowing revenue to adjustment with volumes. Table 10 sets out the volume drivers, unit rates and fixed allowances for NGET for RIIO-ET3.
- 4.40 The atypical threshold, which determines whether a project is funded through the volume driver mechanism or the Load UIOLI or Load Re-opener, is set at $\pm£7.422\text{m}$ for generation projects with capacity 300MW/MVA or above and $\pm£12.251\text{m}$ for all demand projects. For generation projects with capacity output below 300MW the atypical threshold is set at $\pm£1.484\text{m}$ at 0MW/MVA, increasing by $\pm£0.020\text{m}$ per additional MW/MVA. This is shown in more detail in Table 11. If the difference between expected expenditure and allowances of the project is outside these thresholds, it will be funded through one of the other mechanisms mentioned.
- 4.41 Allowances are spread across a four-year period leading up to and including the year of completed project connection following the profile set out in Table 12.
- 4.42 All Draft Determination responses and decisions are provided in the ET Annex.

Table 10: Generation and Demand Connections Volume Driver modelled unit costs (£m/#, 2023/24 prices)

Volume driver	Unit of measurement	Unit rate (£m)	Fixed allowance (£m)
Substation generation	MW/MVA	[REDACTED]	[REDACTED]
Substation demand	MW/MVA	[REDACTED]	N/A
OHL reconductoring	km	[REDACTED]	N/A
OHL reconductoring crossings	Number	[REDACTED]	N/A
Cable < 1km	km	[REDACTED]	[REDACTED]
Cable \geq 1km	km	[REDACTED]	[REDACTED]

Table 11: Generation and Demand Connections Volume Driver atypical thresholds (£m, 2023/24 prices)

Licence term	Substation capacity (MW/MVA)	Atypical threshold (£m)
GCeT	≥ 300	± 7.422

Licence term	Substation capacity (MW/MVA)	Atypical threshold (£m)
GCeT	< 300	$\pm 1.484 \pm (0.020 \times \text{\#MW/MVA})$
DRIt	All	± 12.251

Table 12: Generation and Demand Connections Volume Driver allowances profile

Licence term	Year 1 allowance	Year 2 allowance	Year 3 allowance	Year 4 allowance
GCeT	5%	30%	40%	25%
DRIt	5%	30%	40%	25%

5. Cost of service

5.1 This chapter sets out baseline allowances for the different cost areas within NGET's Business Plan and summarises our review of the Engineering Justification Papers (EJPs).

Baseline allowances

5.2 Baseline totex referenced in this chapter comprises forecast controllable costs and is inclusive of our ongoing efficiency challenge. The figures presented in this chapter do not include Real Price Effects (RPEs) to allow comparisons with TOs' submissions which were exclusive of RPEs. Allowed baseline totex in this chapter directly compares with NGET's baseline submission (after exclusions), but does not reflect the entirety of the available funding upfront, as it does not include ex ante funding such as PCF and UIOLI allowances, volume drivers, pass-throughs or NIA. For NGET's overall ex ante funding, see Table 1.

5.3 Table 13 compares NGET's submitted baseline totex with our Draft Determinations and Final Determinations position at a disaggregated cost activity level.

Table 13: Submitted versus allowed baseline Totex (£m, 2023/24 prices)

Cost area	NGET submitted totex	Ofgem DD ⁵	Ofgem FD	Difference	Difference (%)
Load related capex	425.9	240.0	353.5	-72.4	-17.0%
Non-load related capex	1,430.9	1,009.1	1,204.3	-226.6	-15.8%
Non-operational capex	626.4	530.0	567.8	-58.6	-9.4%
Network operating costs	1,568.3	967.3	1,234.2	-334.1	-21.3%
Business support costs	599.7	517.0	539.8	-59.8	-10.0%
Closely associated indirects	766.4	652.6	725.7	-40.8	-5.3%

⁵ These values are corrected Draft Determinations values.

Cost area	NGET submitted totex	Ofgem DD⁵	Ofgem FD	Difference	Difference (%)
Other costs ⁶	288.0	238.9	258.9	-29.1	-10.1%
Core baseline totex	5,705.7	4,155.0	4,884.2	-821.4	-14.4%

Engineering assessment of NGET's Business Plan

Plan quality

5.4 NGET's plan quality broadly remains acceptable in that it provides sufficient detail and engineering rationale for many of the proposed interventions. Our post-Draft Determinations engagement with NGET highlighted a number of concerns regarding errors and plan changes which impacted our confidence regarding the maturity of the plan, with less optimisation being present than we had originally thought had taken place. NGET's non-load related investment proposals remain our key concern. We consider that the price control mechanisms and protections we are putting in place will address our concerns.

Draft Determination response overview

- 5.5 NGET's response included additional information on the EJPs where we had previously considered that the project need or optioneering had either been only partially justified or not justified. It also addressed areas where we had highlighted wider thematic issues.
- 5.6 We have categorised changes to NGET's plan from their responses into two types. First, where a solution selected was no longer deliverable or customer changes had driven a new solution. Second, where NGET either changed its proposals or added new proposals to the original business plan. Given the interconnected nature of the plan, the new proposals created an additional layer of complexity in our review.
- 5.7 We note that NGET's engineering proposals for this price control have improved over the RIIO-ET2 submissions, particularly in quality and level of supporting information. However, we still have concerns around the lack of project development maturity with relatively high levels of uncertainty and limited cost breakdown provision. These issues were taken into account during the BPI Stage C review.

⁶ Other costs comprise physical and cyber security costs.

NLRE Thematic issues:

Asset Data and replacement of Healthy Assets

- 5.8 In our Draft Determinations NLRE review, we considered that for many asset categories, NGET's proposed interventions on a number of assets could not be justified by reference to its reported asset risk score. We noted that NGET's NARM score reflected one of three different risk systems⁷ which NGET had used to determine its approach. The lack of consistency between the scoring made it unclear why some assets, which appear to be in relatively good health based on their asset risk score, were being replaced. At the same time, other assets reportedly unhealthy were receiving no intervention.
- 5.9 Due to this ambiguity, we have decided to focus on one metric, which is the End of Life (EoL) score. We have directed NLRE funding for NGET at those assets with an EoL score of 75 out of 100 or higher. This upper quartile was used by NGET for a range of other non-lead assets, and our view is that this range represented a sensible benchmark to define a threshold between the categorisation of "healthy" and "unhealthy" assets. NGET has stated that it does not agree with use of EoL as it considers that its approach addresses a wider range of concerns.

NLRE Re-openers – NLRE Major Projects, Reactive Compensation, V-String Busbar and Property

- 5.10 The NLRE Major Projects Re-opener is described in Chapter 4. To aid our future engineering assessment, we need NGET to provide us with the following:
- Relevant supporting asset health data that is consistent with the proposed intervention.
 - Evidence of sufficient stakeholder engagement, highlighting the different options NGET is reasonably expected to consider to achieve the optimal whole-life cost solution.
 - Design works that are sufficiently advanced to ensure that system requirements are well detailed and that physical designs are clearly articulated.
 - Evidence of necessary supply chain engagement to assure us that costs submitted are realistic and reflective of the proposed works.

⁷ These 3 systems included: NGET EoL score, their internal risk view (Discrete asset risk score) and then the NARM score.

5.11 The Reactive Compensation Re-opener is described in Chapter 4. To aid our future engineering assessment, we will need NGET to provide us with the following:

- Relevant supporting asset health data that is consistent with the intervention it is proposing.
- Evidence of sufficient engagement with NESO, ensuring the design meets current system requirements and, as far as possible, provides optionality in the future.
- Design works that are sufficiently advanced to ensure that system requirements are well detailed and that physical designs are clearly articulated.
- Evidence of sufficient engagement with the supply chain to assure us that costs submitted are realistic and reflective of the proposed works.

5.12 The NGET V-String Busbar Re-opener is described in Chapter 4. To aid our future engineering assessment, we will need NGET to provide us with the following:

- Relevant supporting asset health data that is consistent with the intervention it is proposing. This will include the fleet of V-String Busbars, encompassing those proposed for investment and those that are not.
- Clarity regarding future replacement works at sites which the intervention is proposed on. NGET will provide sufficient information that Early Asset Write Off (EAWO) is minimised as far as possible.
- Evidence of sufficient engagement with NESO, ensuring that the outages which are proposed are clearly planned and deliverable.
- Design works that are sufficiently advanced to ensure that system requirements are well detailed and that physical designs are clearly articulated.
- Evidence of necessary engagement with the supply chain, to assure us that costs submitted are realistic and reflective of the proposed works.

5.13 The Property Re-opener is described in Chapter 4. To aid our future engineering assessment, we will need NGET to provide us with the following:

- A clear and combined strategy that addresses interactions in both Alpha and Beta re-openers.

- Clarity regarding the sites future replacement works, should any property works be proposed on, or near, operational sites. We expect NGET not to limit extendibility of Primary or Light current plant.
- Design works that are sufficiently advanced to ensure that property requirements are well detailed and that physical designs are clearly articulated.
- Evidence of necessary supply chain engagement to assure us that costs submitted are realistic and reflective of the proposed works.

Additional Submissions

- 5.14 The NLRE additional submissions in response to our Draft Determinations from NGET included both changes to its original Business Plan and, in some isolated cases, new funding requests.
- 5.15 We welcome NGET's responses to our Draft Determinations. In the future, we encourage NGET to consider all elements of its plan ahead of submission to ensure network assets are all included in its business plan submission, as opposed to some being submitted in response to our Draft Determination consultation, which limits our assessment. We expect to see improvement in this regard for RIIIO-ET4.
- 5.16 We note that in our subsequent discussions with NGET, we realised that the alignment between portfolio EJPs were not as we had understood. For example, a Super Grid Transformer (SGT) replacement where there was a Protection & Control (P&C) replacement associated with the lead asset, did not have the P&C assets flagged for intervention in the P&C portfolio. NGET noted that the bundling which we had assumed was included in the plan stage had not been carried out ahead of the business plan submission due to the uncertainty regarding delivery. This was established where NGET had provided an updated Circuit Breaker (CB) portfolio proposal.
- 5.17 In future, we encourage NGET to complete the bundling analysis before the business plan is submitted to avoid confusion between bundling and proposed bundling of works.

LRE Thematic Issues

NGET's Consultation Response:

- 5.18 NGET noted that at present two substations and ten OHL projects require scope changes and therefore will no longer be applicable for baseline funding and instead will need to utilise the uncertainty mechanisms, if taken forward.

5.19 NGET also commented on engineering elements of the assessment and price control design, centred around three main points:

- The use of gas insulated switchgear (GIS) – NGET noted that our assessments generally were too narrow and that we should consider a wider range of needs associated with optioneering. NGET also noted that our analysis of GIS should not be applied retrospectively.
- That we had not made provision for PCF in its early load related investments which were planned to go through the Load Re-opener.
- That the use of Pre Approval of Solutions by Engineering (PASE) would not result in outcomes to the consumers' benefit and would lead to delays in connections.

5.20 In response to NGETs three main points:

- We retain our Draft Determinations view that NGET's optioneering has been suboptimal in a number of GIS cases, and that we expect that NGETs optioneering and justification for GIS is improved for RIIIO-ET3. However, in order for NGET to deliver their mandated outputs they would need to re-engineer these investments which may cause consumer detriment most likely as a result of delays. Therefore we have decided to allow more of the GIS projects which were poorly developed to receive funding in baseline or go through Track 1 in the Load Re-opener to avoid delays.
- We have made provision for PCF in the LRE investments.
- We propose to widen our PASE applicable solutions to account for proportionate and justified use of GIS.

5.21 NGET's additional data on its LRE proposed investments aided our analysis in reaching our Final Determinations. We have decided to put a number of NGET's projects which at Draft Determinations we found either partially or not justified into Track 1 (see ET Annex for more detail on Load Re-opener tracks). Some NGET responses altered our view of its projects and we have moved from our assessment of not justified to either partially or fully justified. However, for some projects we still have concerns regarding the optioneering.

5.22 Our concerns, frequently regarding design choices which we consider limit future optionality, are often for projects that are well advanced in their project cycle. As such any re-engineering to optimise or reconsider optioneering would result in a significant delay which would ultimately bring greater customer detriment. We

have therefore determined that in these circumstances delivering the proposed solution is now the only credible option available.

- 5.23 In future, we do not want any concerns we may have with NGET's optioneering to be effectively timed out from being resolved. We expect NGET's submissions to give sufficient time for our review and for concerns to be addressed in a timely manner.

Assessment

- 5.24 In our Draft Determinations we provided an overview of the Ofgem Scheme References (OSR) percentage justified. As we have decided to use a series of PCDs in NLRE this is no longer an applicable metric as it would be misrepresentative. Similarly, for LRE, due to a combination of cancelled projects and project changing status the percentage for OSR would be similarly misrepresentative. As such, percentage comparisons of NLRE and LRE between Draft Determination and Final Determinations have not been provided.
- 5.25 To provide similar context to our Draft Determination outcomes, our Final Determinations in NLRE will see an increase to the number of justified OSRs. This arises from our broad acceptance of NGETs volumes requested.
- 5.26 For LRE, due to the changes in conductor types reducing the number of justified OSRs, but the site-specific works increasing the number of justified OSRs the overall LRE OSRs outcome would stay broadly similar to Draft Determinations.

6. Innovation

Background

- 6.1 The SSMD, Business Plan Guidance (BPG), Draft Determinations and Overview Document identify the criteria and process that we have used to assess NIA funding requests. The Overview Document includes details of our decisions for NIA oversight, the SIF, increasing third party involvement and innovation deployment.
- 6.2 We set out below our Final Determinations on NGET's RIIO-3 NIA funding.

Final Determinations decision and Draft Determinations responses

- 6.3 We have decided to allow NGET £117.5m of NIA funding. In its Business Plan, NGET requested £135m of funding. In our Draft Determinations, we proposed allowing NGET £117.5m.
- 6.4 We proposed deducting £3m from NGET's request in relation to its workstream "SF6 projects", as we concluded that this area did not require further innovation funding due to other incentives within the RIIO-3 framework and previous funding that has been given in this area.
- 6.5 Additionally, we reduced NGET's NIA proposal by 11% to reflect shortcomings in its Business Plan against the criteria set out in the BPG.
- 6.6 In its Draft Determination response, NGET mostly agreed with our level of funding, but disagreed with our position on SF6-related projects. It outlined areas where further innovation is needed, such as developing non-commercial technologies, validating new leak detection methods and assessing risks in alternative gases.
- 6.7 We have concluded that this work is sufficiently incentivised through other mechanisms in the price control, such as the IIG ODI-F, which rewards networks for reducing their SF6 emissions. So our position remains unchanged.

Summary of Final Determinations decision

Level of Network Innovation Allowance (NIA) funding: In its Business Plan, NGET requested £135m of NIA funding. Following our assessment, we have decided to allow £117.5m.

7.Data and Digitalisation

Introduction

- 7.1 The SSMD, BPG and Overview Document identify the criteria and process that we have used to assess the funding of proposed Data and Digitalisation investments. The Overview Document also details our decisions for further digitalisation of the sector through the existing Digitalisation licence condition and a Digitalisation Re-opener. We have set out below our Final Determinations position on NGET's RIIIO-3 Data and Digitalisation funding.

Final Determinations decision and Draft Determinations responses

- 7.2 We have decided to allow NGET £317.4m in Data and Digitalisation funding. In its Business Plan, NGET requested £322.5m of Data and Digitalisation funding.
- 7.3 NGET proposed a suite of investments that fed into a wider strategy of enabling smarter network operation and management, upgrading and utilising infrastructure more efficiently, and building a digital culture. These will benefit consumers as they support a more efficient, resilient and innovative system. NGET evidenced its compliance and ambitions for the Data Best Practice (DBP) Principles, as an appendix to its Digitalisation Strategy and Action Plan (DSAP). These principles ensure that data is managed in a way that maximises value, transparency, and trust, and enables the full benefits of data to be unlocked for consumers.
- 7.4 In the BPG we noted that all licensees should signpost investments that would allow them to connect and utilise the Data Sharing Infrastructure (DSI) effectively. NGET outlined its vision of integrating DSI by connecting it to its 'Data Fabric' - an integrated solution to connect, catalogue and provide access to data for its product teams. NGET also identified DSI as a priority area through its other investments, linking many other proposed projects to the DSI. We are confident that the proposed investments will allow NGET to connect to and utilise the DSI.
- 7.5 In its response to Draft Determinations, NGET welcomed the high level of funding that had been proposed. However, it disagreed with the rejection of two Data and Digitalisation investments totalling £6.87m (2.1% of the total amount requested). NGET argued that these projects formed a critical part of its project delivery during the price control. NGET provided addendums for each of these projects with further information. Following further review and additional submitted information, we have decided to allow one of these investments. Our rationale for this decision is below:

- NGET proposed an investment of £4.52m in Cost and Estimation Management tools. We rejected this investment on the basis that NGET had existing cost and estimation tools referenced in its March 2024 DSAP, and because the project description did not include sufficient detail explaining why this additional investment was needed. The additional submitted information did not provide sufficient evidence against the amount being spent for a discovery project and this project will remain disallowed.
 - NGET proposed an additional investment of £2.35m in Resource Management, aimed at optimising siloed systems into one place. It was rejected on the grounds that the project description was too vague and it was unclear which software solutions would be used. NGET's additional information provided adequate evidence and explanations of how the project would function.
- 7.6 NGET also provided feedback to expand the scope of the Digitalisation Re-opener. NGET had several investments that were approved to discovery phase. Its intention was to seek more funding through the re-opener if the investments proved viable. Following Draft Determinations, NGET noted that the scope of the re-opener was too narrow to include the investments and had concerns about future funding. We note that the scope of the re-opener is consistent with the approach taken in RIIO-ED2 as we indicated in the Draft Determinations. We would recommend that NGET explore other funding options for these projects.
- 7.7 NGET also referred to the same investments to raise concerns about the number of Re-opener windows. As we have already defined these projects as outside the scope of the Re-opener, we consider this point also settled.
- 7.8 At Draft Determinations, we identified £0.67m of proposed investment that had been miscategorised as Data and Digitalisation. NGET's Site Comms project related to investment in hardware and technologies and was more suited to IT & Telecoms (IT&T). We have decided to retain our Draft Determination position.

Summary of Final Determinations decision

Level of Data and Digitalisation funding: In its Business Plan, NGET requested £322.5m in Data and Digitalisation funding. We identified £0.67m of investments which should have been categorised as IT&T. This left £321.9m in Data and Digitalisation funding requested. We proposed to fund £315m at Draft Determinations. Following further assessment, we are awarding £317.4m or 99% of the total Data and Digitalisation funding requested.

Appendix 1 – Summary of Engineering Review

- A1.1 The table below provides details on the EJPs/Ofgem Scheme References (OSRs) that we propose to reject or approve with reduced allowances. It also provides our view of a number of EJPs/OSRs in which our recommendations have not impacted any funding requests.
- A1.2 Where we have used PCDs or re-opener our rationale in general is provided in the relevant sections above (see section 2, section 4 and section Engineering assessment of NGET's Business Plan). This avoids duplication of narrative for the specific EJP reviews.
- A1.3 For Portfolio EJPs there are a large number of assets contained within each EJP which have requested interventions. In our review, some of the assets contained within the EJP will have both the needs or optioneering outcome as justified and these will have been included in the Project Assessment Model (PAM) model. However, within this portfolio some will be not justified or partially justified. Therefore, most portfolio EJPs will have an outcome of Partially Justified reflecting this diversity of outcome at an individual asset level. In each portfolio review we have not broken out the individual assets in the table due to the sensitive nature of the asset data included.
- A1.4 Broadly for those Portfolio Assets which are included as justified, this is generally as the EoL score has met our thresholds. We have not discussed these assets in line with our position to not discuss EJPs, which are fully justified.

Table 14: Summary of NGET Engineering Recommendations

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
SGT Portfolio (Spanning multiple OSRs)	<p>Partially Justified.</p> <p>We said the needs case for NGET's Super Grid Transformer (SGT) replacement portfolio was partially justified, which was due to the outcomes of our assessments across the OSRs being a mixture of justified, partially justified, and not justified.</p> <p>We considered that some of the SGTs within this Portfolio EJP were justified, with a clear trigger for intervention.</p> <p>Others were not justified or partially justified due to lack of a clear trigger for intervention on an asset health basis. There were also some assets without proposed interventions, despite their high EoL scores, suggesting that intervention might be necessary. We identified similar issues within the portfolio, including for assets which we believed to be under warranty, those which were previously funded under RIIO-ET1 or RIIO-ET2 and those which are now part of ASTI schemes.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs case as justified we required further information on, but not limited to, asset health triggers, interactions with ASTI and warranty disputes with the Original Equipment Manufacturer (OEM).</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p>	<p>Our decision is to provide all funding for SGTs (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 3 Combination PCD has been selected to ensure sufficient flexibility to deliver the SGT portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
			through the price control period.
Circuit Breaker Portfolio (Spanning multiple OSRs)	<p>Partially Justified.</p> <p>We said the needs case for NGET's Circuit Breaker (CB) replacement portfolio was partially justified as there was not a clear trigger for intervention on an asset health basis in NGET's proposal.</p> <p>We considered that some of the of CBs within this Portfolio EJP were justified.</p> <p>NGET's EoL and NARM scoring was unclear in supporting a trigger point for investment for several CBs. It was difficult to decipher why certain assets were being intervened on now, and why others, including those with higher EoL scores, were omitted. There was a lack of justification and clarity regarding obsolescence and it did not appear to be reflected in the EoL score.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified we required further information on, but not limited to, asset health triggers, treatment of obsolescence and treatment of supporting data.</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p> <p>For CBs NGET altered its proposed works to reflect some new asset data provided. This mainly traded between</p>	<p>Our decision is to provide all funding for CBs (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 3 Combination PCD has been selected to ensure sufficient flexibility to deliver the CB portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
		baseline and pipeline works.	through the price control period.
OHL Conductor Replacements (Spanning Multiple OSRs and Major Projects)	<p>Partially Justified.</p> <p>We said the needs case for NGET's OHL Conductor Replacement Major Projects portfolio was partially justified as there was not a clear trigger for intervention on an asset health basis in NGET's proposals.</p> <p>We welcomed the proposed natural uprating, but there were concerns at the timings of interventions where the condition of the conductor did not appear to require immediate interventions.</p> <p>Our consultation positions were reflected in the PAM output. For us to assess NGET's needs cases as justified we required further information on, but not limited to, the clarification of the trigger for interventions on both conductors and fittings along with timelines for interventions.</p>	NGET provided a range of additional submissions on each major project. This included information on the condition of the routes along with justification for timings of interventions proposed.	<p>Our decision is to provide all funding for OHL Conductor Replacements (baseline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 1 Combination PCD has been selected to ensure delivery of the intervention as planned.</p>
OHL Fittings Portfolio (Spanning multiple OSRs)	<p>Partially Justified.</p> <p>We said the needs case for NGET's Overhead Line (OHL) Fittings replacement portfolio was partially justified as we were not clear from NGET's proposal on the trigger for intervention on an asset health basis.</p> <p>There was a range of Fittings interventions within the Portfolio EJP which we considered were justified. NGET stated in its</p>	NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view	Our decision is to provide all funding for OHL Fittings (baseline and pipeline requests) through a PCD Mechanism, this represents a change

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>proposal that circuit candidates for its OHL fittings programme were chosen where one or more of the fittings groups (spacers, dampers, insulators or fittings) had an EoL score of greater than 70 by the end of RIIO-ET3.</p> <p>However, the EoL score of insulators that do not have a sacrificial Zinc Collar were automatically uprated to maximum EoL. We understood this to be a family type modifier to the EoL, which in general we found as a suitable way of managing family type issues. There was however a concern that this practice is not used in other asset classes and as such we were unclear why it was used here. In many cases, this is what appears to trigger inclusion of a proposed circuit in NGET's proposed OHL fittings programme. NGET has not sufficiently evidenced the need to replace insulators that do not have a sacrificial Zinc Collar.</p> <p>NGET proposed a mix of full and partial fittings replacements across different circuits. In many cases, the other fittings assets proposed to be included within the replacement programme were reported to be healthy, or have only low numbers of assets that would be deemed suitable for replacement based on their EoL scores. NGET has not adequately justified why full circuit replacement of fittings assets are required or economical. We considered there to be a high cost for these replacements due to appreciable early asset write offs.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified we required further information on, but not limited to, asset health triggers, treatment of Zinc Coating issues and clarification over the intervention of healthy assets.</p>	<p>Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p> <p>For OHL Fittings NGET provided additional data related to a series of defects in porcelain and glass insulator sets. In subsequent discussions NGET noted its works towards a universal fittings set.</p>	<p>from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 2 Combination PCD has been selected to ensure sufficient flexibility to deliver the OHL Fittings portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses through the price control period.</p> <p>We support NGET's works towards a universal fittings set and will review any innovation projects that may arise.</p>

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
<p>Instrument Transformers (Combined CTs/VTs, CTs & VTs)</p> <p>(Multiple OSRs across the non-lead portfolio)</p>	<p>Partially Justified.</p> <p>We said the needs case for NGET's Combined Current Transformers/Voltage Transformers (CT/VT), Current Transformers (CTs) and Voltage Transformers (VTs) replacement portfolio was partially justified as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There was a range of instrument transformers within this Portfolio EJP which we considered were justified.</p> <p>A recurring theme for Instrument Transformer (IT) replacements across multiple substations we have observed was assets of the same asset family & model with no supporting data being requested for replacement. We were unclear if these assets were separate phase assets and NGET is approaching works on a circuit level.</p> <p>Regardless, this resulted in assets being considered not justified on need for intervention, at Draft Determinations stage.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p> <p>For Instrument Transformers NGET highlighted the bundling efficiency that is prevented by our DD proposals where there are good opportunities</p>	<p>Our decision is to provide all funding for Instrument Transformers Portfolio (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 3 Combination PCD has been selected to ensure sufficient flexibility to deliver the Instrument Transformers Portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
		to intervene on healthy assets which aligns bay outage requirements.	through the price control period.
Protection & Control Portfolio (Multiple OSRs across the non-lead portfolio).	<p>Partially Justified.</p> <p>We said the needs case for NGET's protection and control replacement portfolio was partially justified, as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There has been a range of Protection and Control (P&C) interventions within the Portfolio EJP which were justified.</p> <p>A recurring theme for P&C replacements across multiple substations was that it was hard to understand why certain assets are being replaced and why some are omitted as there was no supporting data to show what the investment trigger is.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate.</p> <p>We recommended the use of a control, namely a PCD, to protect consumer interests.</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p> <p>For P&C NGET highlighted the bundling efficiency that is</p>	<p>Our decision is to provide all funding for Protection & Control Portfolio (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 2 Combination PCD has been selected to ensure sufficient flexibility to deliver the Protection & Control Portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
		prevented by our DD proposals.	volumes automatically as NGET progresses through the price control period.
Reactive Compensation Portfolio & Network Operability (NGNLT30004 & Pipeline Schemes)	<p>Partially Justified.</p> <p>We said the needs case for NGET's reactive compensation devices replacement portfolio was partially justified as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There has been a range of reactive compensation interventions within the Portfolio EJP which were justified.</p> <p>A recurring theme for reactive compensation replacements across multiple substations was that it was hard to understand why certain assets are being replaced and why some are omitted as there was no supporting data to show what the investment trigger is.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate.</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p> <p>NGET provided additional information on its reactive</p>	<p>Our decision is to provide baseline PCD funding for Reactive Compensation decommissioning.</p> <p>This is because these works are required and have a consistent scope and cost and therefore are low risk.</p> <p>For new reactive control requirements, we have decided to use a reopener (not including Reactors).</p> <p>This is because the scope of works and costs are not clear at this stage.</p> <p>A Type 2 Combination PCD has been selected for baseline work to ensure sufficient flexibility to deliver the baseline Reactive Compensation works while maintaining the</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
		compensation asset management analysis, and its future reactive compensation works. NGET also highlighted in subsequent discussions that there is a lack of certainty between NESO and NGET on requirements for reactive compensation.	principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses through the price control period.
Substation Overheads Portfolio (NGNLT30000 & Pipeline Scheme)	<p>Not Justified.</p> <p>We said the needs case for NGET's substation overheads replacement portfolio was not justified as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There was a range of overheads within this Portfolio EJP which are justified. A recurring theme for substation overheads replacements across multiple substations was that it was hard to understand why certain assets are being replaced and why some are omitted as there was no supporting data to show what the investment trigger is.</p> <p>Our consultation position is reflected in the PAM output. For us to assess NGET's needs cases as justified NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate.</p>	NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not	<p>Our decision is to provide all baseline funding for 5 specific V-String intervention projects as a series of informative works to a reopener. Upon completion of these works NGET may trigger the reopener for the remaining fleet of V-String replacement works.</p> <p>This is because the condition of these assets is such that intervention is likely required, and the uncertainty is best managed through a reopener as opposed to a volume reduction. This</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
		<p>mature enough to consider both as final positions.</p> <p>NGET provided additional information on its Substation Overheads. This included additional clarity on the scope of works for the nominal intervention and clarity over its initial 5 trial sites.</p> <p>NGET included further information on the conditions which may be found of these assets.</p>	<p>is heightened by the limited condition data for these assets, a failure of these assets could cause consumer detriment through unplanned outages.</p> <p>We anticipate a PCD for these works at the conclusion of the reopener.</p>
<p>Through-Wall-Bushings Portfolio (NGNLT30001 & Pipeline Scheme)</p>	<p>Partially Justified.</p> <p>We said the needs case for NGET's through-wall-bushings replacement portfolio was partially justified as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There has been a range of through-wall-bushings within the Portfolio EJP which were justified. A recurring theme for through-wall-bushing replacements across multiple substations was that it was hard to understand why certain assets are being replaced and why some are omitted as there was no supporting data to show what the investment trigger is.</p>	<p>NGET provided no additional information in its submission.</p>	<p>Our decision is to provide all funding for Through-Wall-Bushings Portfolio (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate.</p>		<p>see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 3 Combination PCD has been selected to ensure sufficient flexibility to deliver the Through-Wall-Bushings Portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses through the price control period.</p>
<p>Substation Cables Portfolio (Pipeline Scheme)</p>	<p>Not Justified.</p> <p>We said the needs case for NGET's cable replacement portfolio was not justified as we were not clear on the trigger for intervention on an asset health basis.</p> <p>There have been a range of cable assets within the Portfolio EJP which were justified. A recurring theme for cable replacements across multiple substations was that it was hard to understand why certain assets are being replaced and why some are omitted as there was no supporting data to show what the investment trigger is.</p>	<p>NGET provided a general response regarding non-load related primary and light current schemes. This highlighted three key themes: the first being that in its view Ofgem's proposed settlement methodology primarily using EoL scoring was insufficient</p>	<p>Our decision is to provide all funding for Substation Cables Portfolio (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified NGET needed to provide additional information on why its replacement of what appear to be healthy assets is appropriate.</p>	<p>to identify the assets in most need of intervention; the second in relation to NARM and its insufficiency to highlight all asset management related risks; that the pipeline and baseline relationship was not mature enough to consider both as final positions.</p>	<p>consumers' interest to see an intervention plan using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 1 Named Assets PCD has been selected to ensure sufficient flexibility to deliver the Substation Cables Portfolio while maintaining the principles of NARM via the EoL threshold. This will also enable us to profile NGET's spend and volumes automatically as NGET progresses through the price control period</p>
CC Portfolio	<p>Not Justified.</p> <p>We said the needs case for NGET's Customer Connections portfolio was not justified as we were not clear when the needs case was or was not related to customer connections and when the needs case was driven by asset health.</p> <p>The optioneering is not justified because the level of detail provided is not sufficient for us to understand with enough clarity as to why the proposed options are appropriate.</p> <p>We considered some of the substation proposals within this EJP to be underdeveloped and should have been submitted</p>	<p>NGET noted that the projects listed was early in development, and recognised that there is change expected and so used this novel approach to prepare for the likely long term connections requirements.</p>	<p>Our decision is that this proposed investment remains not justified.</p> <p>This is on the basis that there is limited scope or project development. It is also due to the likelihood of change in the customer connections forecast</p>

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>with a more detailed cost and scope breakdown than what was provided.</p> <p>We supported the development of the projects in this portfolio and proposed that these projects are brought forward via an appropriate uncertainty mechanism when the need crystallises and they are developed to the point where funding is required to undertake preconstruction activities. We noted that this EJP covers a CAI allowance as such our review was not included in the PAM modelling.</p>		<p>through RIIO ET3 and RIIO-ET4.</p> <p>We retain the view that the development of these projects should in principle continue via NGET's CAIs in preparation for RIIO-ET4, for the same reasons we set out in our Draft Determinations.</p>
<p>Energy Efficiency</p> <p>Applicable reporting table in BPDT: 9.17 Environmental Action Plan</p>	<p>Not Justified.</p> <p>We said the needs case for NGET's energy efficiency programme was not justified as we were not certain there was a robust implementation plan and that given the limited cost data we were unclear on the cost to benefits relationship.</p> <p>The optioneering was not justified as there was insufficient evidence to support the different options presented. This mainly related to the inability to link the site, the options selected and what the benefits would be at that site of those options should they be delivered.</p> <p>We understood that, in a licensee of the scale of NGET, there could be energy efficiency works which would bring consumer benefit if correctly evidenced. At a portfolio level NGET had not adequately assessed the long-term implications of its proposal with respect to substation LVAC supplies or possible future emissions of heat pump refrigerant gas. Furthermore, NGET's solar PV proposals appeared costly with respect to good industry benchmarks for solar installation as a £/kWp installed.</p>	<p>NGET provided two additional information points and altered its submission request.</p> <p>This included a new breakdown of the site works considered and costs for these works.</p> <p>NGET revised its costings for its solar PV works across the portfolio following our DD positions that highlighted errors and different analysis points which resulted in a change to the costs presented.</p>	<p>Our decision is to change from our Draft Determination to this proposed programme of works being Justified.</p> <p>This is on account of the additional information NGET provided and its clarifications regarding scope of works and clarification to cost assumptions made.</p> <p>This will benefit consumers through reduced energy use in the NGET operational estate.</p> <p>To provide additional consumer protection we</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide a clear list of the intervention proposed for each of the [REDACTED] sites individually. Furthermore, a more detailed cost breakdown for rooftop PV at substations with the expected benefit of that installation per substation. As well as a clearer risk mitigation strategy for where LVAC panel boards will require upgrading for new ASHPs and solar additions and the impacts this would have on site supplies under emergency conditions.	There were clarifications regarding F-gas use as well which was covered in subsequent discussions.	have decided to use a PCD type 1 for these investments.
Enhanced Ratings Strategy No OSR: funding request via the STCP 11.4 process and the SO:TO incentive.	<p>Partially Justified.</p> <p>We said the needs case for NGET's enhanced ratings strategy was partially justified because the benefits of these interventions were sometimes unclear given there appeared to be overlap on the indicative circuits listed for dynamic line ratings (DLR), and those in ASTI or other projects.</p> <p>Generally, we supported the needs case for installing monitoring equipment and establishing the associated systems and processes to provide Enhanced Rating into the NESO Control Room as the consumer benefits in the round are far greater than lifetime costs. We were unclear as to why, with a target list from NESO that NGET has not requested baseline funding.</p> <p>As noted, NGET did not submit any BPDT lines or costs for this programme; hence no allowances could be provided in our draft determinations. As part of our ET sector considerations, we have asked for feedback on our proposed incentivisation of SO:TO activities, including the use of DLR.</p>	NGET provided a wider response to the treatment of the SO:TO incentive as opposed to addressing the concerns which we raised in our Draft Determinations review.	<p>Our decision is that this EJP is still Partially Justified.</p> <p>NGET did not address the concerns we raised at Draft Determinations, and as such our position and reasoning for this remains the same.</p> <p>Given the EJP does not have any funding request associated this make no impact on NGET's settlement.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	We proposed to discuss this matter with NGET and the other TOs to establish a firm proposal at Final Determinations to ensure DLR initiatives are progressed at pace.		
ET Submetering Project Applicable reporting table in BPDT: NOC Other 8.7	<p>Partially Justified.</p> <p>We said the needs case for NGET's submetering strategy was partially justified due to the lack of survey data and implementation plan.</p> <p>The Optioneering was not justified on account of the limited detail provided around sites and the costs of the installation.</p> <p>NGET was proposing linking all its substation sites across England & Wales onto a centralised EMS platform. However, only four trial sites have had a metering survey. Further site surveys may find that the assumptions which are presented are limited. It was unclear if existing LV infrastructure would be able to facilitate these works.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide sufficient evidence on how the presently metered sites would be incorporated into a new EMS platform.</p> <p>We also required a clearer optioneering on a per site basis to enable our further review.</p>	NGET provided additional data on the proposed sites for intervention.	<p>Our decision is to change from our Draft Determination to this proposed programme of works being Justified.</p> <p>This is on the account of NGET's additional information provided sufficient comfort that the works are required.</p> <p>The investment will result in additional accuracy in electricity use on substations.</p>
Network Operability & Reactive Compensation	<p>Not Justified.</p> <p>We said the optioneering was not justified on account of the lack of information provided with regards to the levels of intervention required and the location of the interventions.</p> <p>NGET were requesting funding to undertake power system studies to identify the requirements, size and location of STATCOMs and active and passive filters required on its</p>	<p>NGET provided additional information which highlighted the needs cases being presented.</p> <p>This includes the works NGET is undertaking</p>	Our decision is to provide NGET a re-opener for new Reactive compensation and Network Operability works, this is a change from our Draft Determinations.

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>network. NGET had not provided any upfront plant location optioneering, therefore the extent of power system studies required or its value was difficult to judge. We also considered this to be BAU and funded via its existing CAI allowances.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide clear rationale as to why the system studies had not already been undertaken, what remaining uncertainty there was regarding the system studies, and evidence from NGET's engagement with NESO regarding Pathfinder interactions.</p>	<p>with NESO in developing the final scopes of the works required.</p>	<p>This is because the need case for these works, at a macro level is accepted given the additional engagement which we undertook with NESO and subsequent discussions with NGET.</p> <p>As the specific scope and cost details are not known at this time, a re-opener provides sufficient flexibility to address works as the scope and costs are developed further.</p>
T3 - Air Systems	<p>Not Justified.</p> <p>We said the needs case for NGET's air systems replacement strategy was not justified because NGET has presented an unclear interventions strategy as we would expect to see a trend of replacement of airblast switchgear with a modern alternative and decommissioning of the compressed air systems.</p> <p>The optioneering was not justified as the selected sites appeared to include those in which the Air-Blast Circuit Breakers (ABCBs) are being replaced and sites which NGET has noted are likely to be replaced, and as a by-product the air system would be redundant.</p> <p>We recognise that NGET had provided supporting information which suggested the ABCBs are classed as obsolete. It was</p>	<p>NGET provided additional information which highlighted its need case works, in particular those related to legislative compliance on safety systems.</p> <p>NGET noted that it uses its EoL system for assets which are 75 and above, which is the same threshold we have used in our PCD proposals.</p>	<p>Our decision is to change from our Draft Determination to this proposed programme of works being Justified.</p> <p>This is due to NGET's additional information and potential optionality for reuse of assets.</p> <p>This is in the consumers interest as it will enable NGET to maintain the operational readiness of its air driven systems.</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>unclear that in NGET's TCPR4 and RIIO-ET1 life extension programmes of ABCBs if the air systems were intervened in parallel.</p> <p>With an anticipated lack of future for ABCBs the investment into Air Systems appeared unjustified. The link between ABCBs and compressed air network interventions was not well articulated.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide sufficient evidence and rationale for its continued investment in its air actuated assets.</p>	<p>In onsite discussions NGET highlighted that assets installed on sites which were due for replacement, may be reused in the future dependant on the air system design.</p>	
<p>T3 Cable Repairs and Minor Replacements (Applicable reporting table in BPDT: 8.4 Repairs)</p>	<p>Not Justified.</p> <p>We said the needs case for NGET's cable repairs and replacement strategy was not justified because it was unclear why this investment was not categorised under NGET's existing emergency repair budget.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide further rationale as to why this investment was not allocated under the existing RIIO-ET2 emergency repair budget or covered by totex allowances in RIIO-ET2.</p>	<p>NGET provided additional detail on its proposed CSE interventions. This includes justification for not including the works in RIIO-ET2 and additional clarity on how it has constructed its proposed unit rates for works.</p>	<p>Our decision is to change from our Draft Determination to this proposed programme of works being Justified.</p> <p>This is as a result of NGET's additional information's information. We partially accept that there was some uncertainty in the RIIO-ET2 period, but retain a concern regarding the limited actions in the RIIO-ET2 period.</p> <p>This will benefit consumers by removing a range of high-risk assets from the network.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
Various OHL Reconductoring (Includes ACCC impacted NLRE and LRE)	<p>Various outcomes.</p> <p>We reviewed a range of FD projects which included a specific type of conductor which NGET proposed to use. NGET noted there were a range of concerns with this proposal which we accepted, but noted we were not clear on the outcomes of this analysis.</p>	<p>NGET provided additional data on its works. This included confirming that some projects will result in a direct swap for an alternative conductor, while some will need re-engineered. In both cases these projects will be progressed via the Load Re-opener.</p>	<p>Our decision is that these projects will be classified as unjustified.</p> <p>This is for the purposes of the PAM model as NGET has informed us of the solution change.</p> <p>We recognise the general efficacy of increasing conductor ratings where required by NESO so remain broadly supportive of the intent NGET has displayed.</p> <p>These projects, where utilising reconductoring will likely be included in track 2 Load Re-opener</p>
<p>T3 - Substation Battery Systems and Room Upgrades</p> <p>(Applicable reporting table in BPDT: 8.4 Repairs).</p>	<p>Partially Justified.</p> <p>We said the optioneering for NGET's battery replacement and upgrade strategy was partially justified because NGET proposed to replace entire battery systems without any relevant asset health data scores or EOLs for cells, strings or battery compounds provided at each substation.</p> <p>The optioneering was further limited as the needs case to optioneering relationship was unclear, but we noted that battery replacement is often an economic intervention.</p>	<p>NGET provided no additional information in its submission.</p>	<p>Our decision is to maintain our Draft Determinations position for the same reasons. Our decision is reflected in the PAM outputs.</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>NGET's intervention strategy was largely without evidence in the approach to either partial or full replacement optioneering.</p> <p>NGET further propose [REDACTED] battery room upgrade installations for ATEX equipment assumed to be required for safety compliance with DSEAR 2002. However, NGET is yet to undertake the necessary DSEAR risk assessments to inform the scope of remedial investment required. We expect such risk assessments to be completed, and used to define the scope, ahead of requesting funding requests. We were also unclear as to why NGET had not previously completed these risk assessments.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs case as justified, NGET needed to provide site details, condition surveys, scope of works and associated costs, over scoping justification and completed DSEAR surveys.</p>		
<p>T3 - Substation Infrastructure Civils (Applicable reporting table in BPDT: 8.7 NOC Other)</p>	<p>Not Justified.</p> <p>We said the needs case for NGET's infrastructure civils submission was not justified because NGET had not adequately articulated its planned programme of works to maintain substation infrastructure civils.</p> <p>NGET had not provided proposed site locations or schedules of works to be completed at each site. Furthermore, the assumed spend profile was flat throughout RIIO-3. We considered this assumption unrealistic as it is unlikely there will be identical defect identification at each substation and uniform outage approvals, especially given the large volume of interventions proposed.</p>	<p>NGET provided additional data in its DD response. This included a detailed breakdown of the works proposed along with costs. NGET provided additional information on its wider civils portfolio.</p> <p>As part of our post DD site visits we were given additional examples of works NGET were and were not considering.</p>	<p>Our decision is to provide all funding for Substation Infrastructure Civils (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>There were also several assets that were either not available for inspection or healthier than the threshold requiring intervention, and so it was unclear what the risk impacts on future costs will be if NGET did or did not address these items in RIIO-ET3.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide further a detailed site list, defect list and a realistic spend profile and process to prioritise activities with higher risk assets.</p>		<p>using a PCD to mitigate asset health data concerns, as opposed to volume reductions.</p> <p>A Type 3 Combination PCD has been selected to ensure sufficient flexibility to deliver the Substation Infrastructure Civils while maintaining benefits of Type 1 PCDs for the heterogeneous asset groups and the benefits of Type 2 the homogeneous asset groups.</p>
Substation LVAC Auxiliary Infrastructure	<p>Not Justified.</p> <p>We said the needs case for NGET's LVAC (Low Voltage AC) submission was not justified because it was unclear what interventions were being proposed and why those interventions are needed in RIIO-ET3. Further issues include an unclear link between CAPEX and OPEX based investments.</p> <p>NGET's optioneering was partially justified as it was unclear how the proposed options addressed the needs case presented.</p> <p>NGET has a variety of investment workstreams to support substation resiliency and functionality within the EJP and generally we supported the principle of intervention ahead of failure. As NGET had not identified the applicable sites nor</p>	<p>NGET provided additional information on its LVAC asset base, including a list of assets proposed for intervention and a cost for each proposed site based works.</p> <p>This did not include its entire LVAC fleet.</p> <p>Additional clarity was provided on the relationship of its EoL</p>	<p>Our decision is to provide all funding for Substation LVAC Auxiliary Infrastructure (baseline and pipeline requests) through a PCD Mechanism, this represents a change from our Draft Determinations.</p> <p>This change has taken place as it is in the consumers' interest to see an intervention plan using a PCD to mitigate</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>works within sites we were unable to establish the consumer benefits of these works.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide site details, condition surveys, scope of works and associated costs, and sufficient justification as to why the interventions, for example diesel generator works were allocated under maintenance and repairs.</p>	score and its Asset Health categorisation.	<p>asset health data concerns, as opposed to volume reductions.</p> <p>A Type 1 Combination PCD has been selected to ensure NGET deliver these works in line with its original business plan.</p>
[REDACTED] Decommissioning	<p>Not Justified.</p> <p>We said the needs case for NGET's [REDACTED] circuit deconstruction submission was not justified because the consumer benefit was unclear. This was on account of the uncertainty as to locations of large levels of generation as such our view was that the optionality around reuse of assets should not be removed.</p> <p>The optioneering was limited in the long-term impacts of the removal as NGET appeared to have not considered if any further works may happen at the remote end of the line.</p> <p>We value future optionality and reuse of equipment as a key principle in our technical reviews, and as such did not support the decommissioning of assets without detailed analysis showing there is no future use cases.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide further rational on the benefits of proposed removal of this circuit over potential reuse for possible future connections.</p>	<p>NGET provided a number of alternative options to respond to our consultation position.</p> <p>We engaged on further bilateral discussions with NGET and the final proposed option addressed the asset health concerns via the creation of a new OHL Training Facility.</p>	<p>Our decision is to provide NGET a re-opener for its proposed OHL Training Centre.</p> <p>This has changed as a result of NGET's changes to its plan on the back of our feedback.</p> <p>This is on the basis that additional training facilities will be of benefit to the consumer and the industry, but we recognise that NGET has not had sufficient time to develop the proposal to the accuracy to request baseline funding.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
UIOLI Provision for Emerging Low Carbon Opportunities (Applicable reporting table in BPDT: 8.12 Net Zero)	<p>Partially Justified.</p> <p>We said the needs case for NGET's UIOLI Provision for Emerging Low Carbon Opportunities submission was partially justified because the significant investment proposed within the EJP was not well defined. There was also a lack of clarity on why the 'emerging low carbon opportunities' section of the paper was not funded through the innovation channels of NIA or SIF.</p> <p>We broadly support works which seek to minimise environmental footprints where we have robust evidence that it will deliver a measurable outcome. Noting NGET's BCF works, we were unclear why optioneering in this EJP did not consider more aggressive removal of SF6 emitting assets as a valuable comparative and deliverable equivalent.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide sufficient evidence to justify why NIA or SIF was not being utilised, and why HVO fuel requires an uplift in cost compared to petroleum-derived products on the basis this should be deemed as BAU to operate FLT's etc.</p>	NGET provided no additional information in its submission.	<p>Our decision is that this EJP is Not Justified.</p> <p>This is on the basis that we have increased the baseline allowances across all TOs for such works because we recognise that the intent is in alignment with good practice to reduce carbon emissions.</p>
Fawley Strategy (Chilling - Fawley and Fawley S/S)	<p>Not Justified.</p> <p>We said the needs case for NGET's Fawley Strategy was not justified because the trigger for substation rebuild was unclear.</p> <p>The optioneering is not justified as the preferred options and rejected options appear contradictory to NGET's most recent investment proposals at the site which suggests more options were available to NGET than have been presented in the EJP.</p>	NGET provided additional detail on previous SQs and engagement. This includes clarification on the need case, and in particular scoring of asset health and the level of development in the optioneering.	<p>Our decision is that this project be included in scope of the NLRE Major Projects Re-opener.</p> <p>While we retain our concerns set out in Draft Determinations regarding NGET's reported condition of the assets we accept that</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>Fawley was listed in draft EJP for RIIO-ET2 as needing a full rebuild due to civil issues and asset health risks. During this time, most assets were reported as being healthy, and the civils review did not identify subsidence issues - despite evidence provided that this was present. We anticipated that NGET's RIIO-ET2 Civil Reopener would address most of these issues.</p> <p>Rather than proceed to rebuild the site in RIIO-ET2, NGET elected to continue to extend the site. Having completed this extension work, NGET is now proposing to rebuild the site. Many of the assets at the site are reported with an acceptable EoL. Combined with the decision to complete the extension works, this did not provide us confidence that a full site replacement is now required.</p> <p>Optioneering was not justified as a report on siting had been provided as supporting evidence which is contradictory to NGET's optioneering process as we understand it. In this report, a critical decision meeting between NGET and its Consultants on substation switchgear choice had been documented as 'completed', however, the consultants additional tracked comments suggest that this did not in fact take place at the time the report was produced. This makes the support of a GIS option harder to conclude as justified.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs cases as justified, NGET needed to provide justification on the need for intervention and a more detailed optioneering that considers the AIS equivalent in line with our whole life cost considerations.</p>		<p>the works are needed. A re-opener is appropriate because asset condition, scope and costs are all uncertain at this time.</p> <p>We will work with NGET to ensure asset condition scoring is reflective of the issues NGET has identified.</p>
NEWX-WIMB, HURS-NEWX and	Partially Justified.	NGET provided additional information which clarified the RIIO-	Our decision is that this project be included in

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
HURS-LITT Decommissioning	<p>We said the needs case for NGET's NEWX-WIMB, HURS-NEWX and HURSLITT cable removal works was partially justified because of NGET's intervention to decommission the asset was unclear.</p> <p>The optioneering was similarly lacking as there was limited detail included.</p> <p>From a risk perspective NGET has made references to the Wimbledon Asset Replacement Scheme and Bengeworth Road S/S, both of which require outages that makes it unclear how this interacts with this cable decommissioning project.</p> <p>NGET has proposed to remove all associated cables on completion of London Power Tunnels 2 (LTP2), we were unclear if elements may have already been funded. Given the significant quantities of oil contained within the cables, it proposes to drain and cap the cables which are not under public highways. The remaining cables would be removed from site. We were unclear on the consumer benefits of this work.</p> <p>Our consultation position was reflected in the PAM output. For us to assess NGET's needs case as justified, NGET needed to provide sufficient evidence to aid in clarification on the numerous interactive funding mechanisms with this project. We also required clarification as to why this was not included in the main LPT2 scheme.</p>	<p>ET2 settlement element of the works.</p> <p>NGET noted that this project would be better suited to an NLRE reopener.</p>	<p>the NLRE Major Projects Re-opener.</p> <p>This is on the basis of NGET's additional information which clarified the original funding position.</p> <p>We expect NGET to provide more detail regarding scope and costs when submitting its funding application.</p>
St Johns Wood 275 kV Rationalisation	<p>Not Justified.</p> <p>We said the needs case was not justified as the intervention appeared to target assets which are not near their end of life.</p>	<p>NGET provided additional information on its proposed St Johns Wood rationalisation. This covered a range of areas related to overall</p>	<p>Our decision is that this project be included in the NLRE Major Projects Re-opener.</p> <p>While we retain the concerns regarding</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>The optioneering was partially justified in our review because we did not believe that there was sufficient clarity over the long-term impacts of the preferred option.</p> <p>The St Johns Wood 275kV site is presently reported as broadly healthy, but with an aggressive deterioration over the course of RIIO-ET3. NGET's justification for this investment was unclear given that there are a range of assets elsewhere with a higher EoL which are not included in any of its plans, and therefore it was unclear why this rationalisation is a priority given the scale of connection and reinforcement works required elsewhere.</p> <p>The optioneering, despite an absence of detail, appeared sensible at a high-level, and supported future optionality at the site. We were however unclear on the costs and risks presented which appeared to be disproportionately high. We also understood the 400kV extension will utilise more SF6 based assets.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's wider asset health strategy, the long-term impacts of this proposal and the use of SF6.</p>	<p>health of assets and the configuration of the intervention proposed.</p>	<p>NGET's reported condition of the assets we recognise that there are potentially wider consumer benefits of the works being undertaken as proposed.</p> <p>We expect to have further engagement with NGET on the reported condition of these assets.</p>
<p>Bolney 400kV S/S and Fleet 400kV S/S</p>	<p>Partially Justified.</p> <p>We said the needs case was partially justified as the intervention would support connection works but we were not clear on the impacts on the DNO network and future plans.</p> <p>The optioneering was partially justified in our review because we did not believe that there was sufficient clarity over the long-term impacts of the preferred option.</p>	<p>NGET provided additional information which removed the need for this investment.</p>	<p>Our decision is that these projects are Not Justified.</p> <p>This is due to NGET cancelling the project.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>NGET proposed to create a 150MW Grid Park to facilitate two battery connections at 33kV, at distribution network voltage. The power system solution and the optioneering has limited interaction with UKPN which means we are unclear on the impact this may have on UKPN's connections. This is compounded by the UKPN site replacement being adjacent to the NGET site. NGET has not adequately justified why expanding the UKPN replacement site to accommodate the proposed connections has not been considered on a whole systems basis to make best use of SGT capacity.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's proposed works impact on the DNO connections and its 132kV substation project. Finally, we expected NGET and UKPN to provide a whole systems option to ensure the consumer value was present.</p>		
Bridgwater 400kV S/S	<p>Partially Justified.</p> <p>We said the needs case was partially justified as the intervention will support connection works but we were not clear from NGET's proposal on the timing of the investment or its interaction with other LOTI projects in close proximity.</p> <p>The optioneering was partially justified in our review because we did not consider that there was sufficient clarity over the long-term impacts of the preferred option.</p> <p>The optioneering was insufficiently robust as NGET did not appear to have assessed or enquired about the impact of the proposed tertiary connections on the electricity distribution networks supplied via the SGT.</p>	<p>NGET provided more detail in its consultation response regarding the scope of works and interactions with the DNO. NGET confirmed that there was no interactions with the ongoing LOTI project at an adjacent substation.</p>	<p>Our decision is that this project has changed to Justified.</p> <p>This is because of the clarifications NGET provided which addressed our Draft Determinations concerns.</p> <p>Our decision is reflected in the PAM outputs.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's need case and optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's proposed works impact on the DNO connections and the linkages to assumptions in the associated LOTI project.</p>		
Bulls Lodge	<p>Partially Justified.</p> <p>We said the needs case was partially justified as the intervention would support connection works but we were not clear from NGET's proposal on the timing of the investment or if it was in compliance with the CUSC requirements for minimum scheme.</p> <p>The optioneering was not justified in our review because we did not believe that there was sufficient clarity over the long-term impacts of the preferred option in particular the selection of GIS in the preferred option.</p> <p>NGET initially considered an AIS option however it had not adequately justified its rejection without progression to a cost benefit analysis. NGET did submit AIS costs which were not modelled and showed significantly lower capital costs for all AIS options.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's CBA considering the AIS option. Further information would be required to understand NGET customer connection offer and ensuring it is the minimum scheme.</p>	<p>NGET provided more detail in its consultation response. This included a range of further clarifications. This focused primarily on its costings for alternative options at this stage in the project and its historic planning permission activities.</p>	<p>Our decision is that this project remains Partially Justified.</p> <p>This is because, while we accept that there is a need for these works, we do not agree that NGET's actions with regards to planning permission have been in line with our expectations regarding providing minimum scheme solutions as required in the CUSC.</p> <p>Therefore, this project will go through Track 3 Load Re-opener.</p>

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
Chilling Lovedean Cable Replacement	<p>Partially Justified.</p> <p>We said the needs case was partially justified as the intervention would support future connection works, but given the lack of information provided we were unclear from NGET what was driving this investment.</p> <p>The optioneering was partially justified as the whole life impacts of the optioneering had not been clearly evidenced.</p> <p>NGET had not provided sufficient detail on the demand and generation growth triggering the investment. The cable was reported in good condition, whilst the dependent network had much higher EoL scores.</p> <p>As Lovedean was being considered for full site rebuild, the optioneering was partially justified as a more holistic solution has not been detailed. We were unclear if this work would lead to an EAWO.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we requested further details of the customer connection timings, locations and capacities were provided as well as a more coordinated view on asset dependencies and whole site strategy.</p>	<p>NGET provided more details on the drivers for the cable replacement and full site rebuild.</p>	<p>Our decision is that this project remains Partially Justified.</p> <p>This is because, while we accept that these works are required we are concerned that there is still a potential for an EAWO should the Lovedean replacements go ahead. We will consider this should Lovedean be taken forward for intervention in the future.</p> <p>Given the required uprating any delays would not be in the consumers interest and as such we have decided this project is Track 1 Load Re-opener.</p>
Fixed Wire Testing (Applicable reporting table in BPDT: 8.7)	<p>Not Justified.</p> <p>We said the needs case was not justified because NGET had not adequately justified the scope of the proposed works with respect to works carried out during routine inspection and maintenance activities. We were also concerned about early asset write offs if NGET undertakes its investment strategy as planned.</p>	<p>NGET provided a range of additional data points regarding the interventions its was proposing. This included additional narrative data.</p>	<p>Our decision is that this investment is Justified.</p> <p>This is on the basis of NGET's additional information provided which split out the per-site costs for the interventions which has</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>NGET included significant spend for sites which are due to be replaced which undermines the robustness of NGET's proposal. The supporting information in the EJP was insufficient for us to determine if the investment was appropriate. As a further impact the relationship between the portfolio level optioneering and the site which will be intervened was unclear.</p> <p>NGET made a similar submission in the RIIO-ET2 Civils Related Works Reopener. At the time we noted the use of NGET's new database for such information, but no extracts were provided in RIIO-ET3 submissions. We assumed the same incomplete data set which was used for the reopener had been used again.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we requested that NGET provided us with a more robust workplan including a list of sites and prioritisation.</p>		<p>given us more confidence on the scope of works.</p> <p>Our decision is reflected in the PAM outputs.</p>
<p>Early Land Purchase</p> <p>(Applicable reporting table in BPDT: 6.1 C&V Load)</p>	<p>Partially Justified.</p> <p>We said the needs case was partially justified as the intervention would support connection works at new substations or substation extensions.</p> <p>It was accepted that land will need to be procured and accepted that this may need to be done at risk. However, NGET had not presented sufficiently robust analysis to demonstrate that each of the potential sites considered would require additional land for site extension or rebuilds. We therefore had insufficient confidence in the need and value for money of NGET's proposal. Our wider policy position is that this we would not be providing strategic land purchases.</p>	<p>NGET noted in its consultation responses that there was a discrepancy between our EJP review and our wider policy</p>	<p>Our decision is that this EJP is not justified.</p> <p>Our policy position is that we will fund land purchases on a project specific basis when sufficient detail on the project is available to ensure that the land in question is required.</p> <p>Our decision is reflected in the PAM outputs.</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we requested NGET provide a more robust needs case for each of the potential sites proposed, as well as further clarity on which out of the proposed sites would be pursued.		
Electricity System Restoration Resilience (ESRR) (Applicable reporting table in BPDT: 7.4 ESR)	<p>Partially Justified.</p> <p>We said the needs case was partially justified for ESST as we had insufficient details in the needs case or delivery of the proposed investment.</p> <p>NGET had been unable to link the proposed investments to its existing Restoration Plans and strategies. This was compounded by a number of schemes deferred from RIIO-ET2 which raised concerns around investment timing.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, we requested NGET provide more clarity on the list of substations which were on the critical path for the holistic restoration plan.</p>	NGET provided no additional information in its submission.	<p>We retain our Draft Determinations position as our Final Determinations, for the same reasons provided.</p> <p>NGET did not provide additional information to address our concerns raised at Draft Determinations.</p>
Eakring Training Centre	<p>Not Justified.</p> <p>We said the needs case was not justified. This is because the investments and benefits associated were unclear given NGET's existing investment strategy.</p> <p>Optioneering was also not justified. This was through the lack of options considered across the majority of investment proposals.</p> <p>The EJP covered a range of investments from Energy Efficiency to accommodation provision. For energy efficiency</p>	NGET provided additional information on these projects and covered a range of issues in subsequent bilaterals. These highlighted the urgent nature of a proportion of the Estate to be modernised and or repaired. The second	<p>Our decision is that this investment has changed to Partially Justified.</p> <p>This is because we agree that some works are needed immediately and will have immediate consumer benefits, but that we retain concerns regarding some of the</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>aspects we accepted the need for these, but this was on a principal basis. NGET's wider optioneering was limited in this area and costs appeared high.</p> <p>Specifically on the accommodation block, NGET had not provided sufficient evidence that continuing its temporary accommodation strategy employed during RIIO-ET1 was no longer suitable. Furthermore, NGET's optioneering appeared limited in this element where we would have considered NGET utilising existing accommodation or reusing empty building in proximity to Eakring; or engaging 3rd party providers to deliver this work on NGET's behalf.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified, sufficient evidence was required across each of NGET's investment categories at Eakring, with supporting CBAs to be provided. In addition, further cost breakdown was required on accommodation refurbishments, oil-fired boiler replacement and LED lighting.</p>	<p>element highlighted the need for ongoing upgrades and improvements to the centre.</p>	<p>longer term upgrades proposed.</p> <p>We have decided to include the upgrades and improvements sections of this investment as part of the Alpha Property Reopener.</p> <p>For the urgent works this includes a baseline funding allowance.</p>
Operational Estate	<p>Not Justified.</p> <p>We said the needs case was not justified. This is because although there were benefits to these works, NGET had not identified why these investments are needed now, or why defects had not been previously addressed.</p> <p>Optioneering was also not justified, as in combination with the needs case elements there was insufficient information to support the funding requested.</p> <p>There was significant overlap with the Energy Efficiency programme EJP that gave rise to risks of double funding in our view. The defect management request was unclear as we would have anticipated this would be managed through</p>	<p>NGET provided more information on its proposed works, in addition, NGET redefined its request into a baseline proportion and a proportion requiring a reopener.</p> <p>NGET also altered its allowance requests further to reflect some</p>	<p>Our decision is that this investment has changed to Partially Justified.</p> <p>This is because the data provided the baseline requirements is clear and NGET has altered some costs for sites which are due to be rationalised. We have decided to use a PCD for those baseline elements.</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>existing allowances. While we are supportive of licensees working to ensure they provide facilities which help retain staff, we were unclear on NGET strategy for "Wellbeing & Engagement" in relation to the operational estate where there are no measurable outputs or clearly defined scopes of work.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's needs case and optioneering as justified we required further cost breakdowns, measurable outputs for staff wellness and engagement related to the investment proposals and additional information on NGET defect resolution in RIIO-ET1 and RIIO-ET2.</p>	<p>of our detailed questions.</p> <p>The sites and scopes of work for those projects in the reopener were not presented.</p>	<p>For the remaining element of the investment, of which there was no data, we have decided that this will be included in the Alpha Property Reopener.</p> <p>Our decision is reflected in the PAM outputs.</p>
<p>Iver-Laleham Cable tail uprating and Iver-West Weybridge Cable tail uprating</p>	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support future connection works.</p> <p>However, the optioneering was not justified because opting to hotwire the existing circuit as opposed to reconductor was not well evidenced.</p> <p>The capability of the cable tails will not be useable until the circuit is reconducted. Further, the maximum capacity of this circuit is not sufficient for the long-term needs, and therefore a future uprating to 400kV seems likely. NGET did not consider cable tails rated to 400kV.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we requested NGET provide sufficient evidence to justify the rationale behind not considering reconductoring at higher temperature to maximise capacity, or installing cable tails rated at 400kV.</p>	<p>NGET provided a response which highlighted the difficulties in operating this area of the network at 400kV due to the works required at remote end substations.</p> <p>We note that NGET is correct, but our Draft Determination commentary is regarding the rating of the cables, not the operating voltage.</p>	<p>Our decision is that this investment has changed to Partially Justified.</p> <p>This is because we agree that the reduction in constraints is needed immediately and will have consumer benefits. We seek further engagement with NGET to clarify that our comments related to ratings, not operating voltages.</p> <p>While we do not expect the OHL to be reconducted on this project we retain the view that it is likely this will be needed in the</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
			<p>future and we will consider any EAWO associated with this work.</p> <p>Given the immediate consumer need and expectation that the clarification needed is minor, we have decided this is a Track 1 Load Re-opener.</p>
T3 - OHL Enabling Works	<p>Partially Justified.</p> <p>We said the needs case was justified as the intervention would support future connection works.</p> <p>However, the optioneering was partially justified as NGET had not provided sufficient justification on its proposal to increase its Portable Free-Standing Assets that are compatible with High Temperature Low Sag conductors and composite insulators by 25%.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we requested sufficient evidence was provided to justify the volumes proposed.</p>	NGET provided no additional information in its submission.	<p>Our decision is to retain our Draft Determinations position that this is Partially Justified, for the same reasons set out in our Draft Determinations.</p> <p>NGET did not provide additional information to address our concerns raised at Draft Determinations.</p>
T3 - OHL Repairs and Minor Replacements	<p>Partially Justified.</p> <p>We said the needs case was justified as the intervention would support future connection works.</p> <p>However, the optioneering was partially justified as NGET had not provided sufficient justification as to why known defects that this proposal aims to resolve were not resolved in RIIO-</p>	NGET provided no additional information in its submission.	<p>Our decision is to retain our Draft Determinations position that this EJP is Partially Justified</p> <p>NGET did not provide additional information to</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>ET2, what risk mitigation has been in place since identification, and why the works were not classified and funded under its maintenance and repairs budget. NGET also requested funding for emergency faults based on the 4YC incident, however, provided no information on this incident.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we requested sufficient evidence was provided to justify the rationale behind deferral of works in RIIO-ET2 and further evidence on the 4YC incident.</p>		<p>address our concerns raised at Draft Determinations.</p>
Barking	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support connection works and potentially wider reinforcement works.</p> <p>However, the optioneering was not justified in our review because we did not believe that there was sufficient clarity over the long-term impacts of the preferred option in particular the voltage selection of the preferred option.</p> <p>NGET discounted a 400kV replacement of the existing 275kV site due to higher cost associated with the necessary SGT replacements, however, there had been no consideration of constructing a new substation rated at 400kV but initially operated at 275kV. Nor had the wider strategic element of a long term 400kV site been considered. Had a 400kV site been considered it would appear to have a number of benefits including serving or forming part of the future replacement of the existing 400kV site and potentially allowing for the use of SF6 free switchgear.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we</p>	<p>NGET provided additional information on its proposed Barking solution confirming its switchgear would be 400kV rated but operated at 275kV.</p> <p>In the Operational Estate Paper NGET also altered its plans which reflected the proposed replacement of the 275kV site.</p>	<p>Our decision is that this project be included in the NLRE Major Projects Reopener.</p> <p>We have concerns regarding the reported asset condition but note that NGET's further information regarding its 275kV switchgear has altered our decision.</p> <p>We expect to have further engagement with NGET on the reported condition of these assets.</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	needed to see additional supporting information setting out more detail on NGET's wider London 275kV long term strategy and the implications of operating 400kV switchgear at 275kV. This would also benefit any future Load Re-opener application.		
Kirkstall 'A' - Skelton Grange Cable Replacement	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support future connection works and retain the existing.</p> <p>However, the optioneering was not justified as there was insufficient detail in the EJP.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, at this stage seeking PCF only. Whilst we agreed with the needs case, the optioneering presented was insufficiently detailed. There were five different options considered during the optioneering process. The four credible options need detailed analysis and comparison, and the route optioneering was not complete in final selected option. We also noted that the proposal to remove and replace 8.61km of fluid-filled cable appeared costly.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see a more robust assessment of the options to demonstrate selection of the most economical and efficient solution to be presented in the Load Related Reopener submission.</p>	NGET provided additional information in its submission. It highlighted the fact the project was at an early optioneering and so our Draft Determinations feedback was taken on board.	<p>Our decision is that this project is Partially Justified and will be included in the NLRE Major Projects Reopener.</p> <p>This is because we accept that works are likely to be needed and that our primary concerns were with optioneering which NGET note will likely be updated ahead of submission.</p> <p>We welcome further engagement with NGET on its proposals.</p>
Pembroke 400kV S/S	Partially Justified.	NGET provided additional information regarding the design of	Our decision is that this project has changed to Justified.

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>We said the needs case was justified as the intervention would support connection works and wider reinforcement works.</p> <p>The optioneering was partially justified in our review because we did not consider that there was sufficient clarity over the long-term impacts of the preferred option.</p> <p>Our concern was that the proposed investment did not sufficiently consider the longer-term risks and or limitations posed by extension of the existing site due to asset health deterioration expected. Whilst we acknowledged the issues which NGET were facing with regard to land options, any long-term operability impacts of the proposed GIS extension onto an existing AIS substation were unclear.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's existing assets at site and a more comprehensive understanding of its long-term strategy. This would also benefit any future Load Re-opener application.</p>	<p>the AIS to GIS interface.</p> <p>Additional information was provided regarding the long-term optionality with respect to the 400kV AIS.</p> <p>We also undertook a site visit to Pembroke to discuss with NGET its proposed interventions.</p>	<p>While we retain concerns regarding the specific design's extendibility, NGET has provided additional information which reduces our concerns.</p> <p>In future we expect NGET to consider extendibility of designs ahead of option selection.</p> <p>This project will be in Track 1 Load Re-opener as the EJP is justified.</p>
<p>West London Cables Strategy (Ealing - Laleham, Iver - North Hyde, Ealing Willesden)</p>	<p>Partially Justified.</p> <p>We said the needs case was justified as the intervention would support wider reinforcement works.</p> <p>The optioneering was partially justified in our review because we did not believe that there was sufficient clarity over the preferred option to understand the proposal.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, at this stage seeking PCF only. Whilst we agreed with the needs case and NGET had presented comprehensive optioneering, we noted that NGET</p>	<p>NGET provided additional information in its submission. It highlighted the fact the project was at an early optioneering and so our Draft Determinations feedback was taken on board.</p>	<p>Our decision is that this project remains Partially Justified and that it be included in the NLRE Major Projects Reopener.</p> <p>This is because we accept that works are likely to be needed and that our primary concern was regarding the level</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>had not discounted any options or presented a preferred option. A number of options, e.g. like for like replacement, appeared sub-optimal and short-sighted.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's preferred option. This would also benefit any future Load Related reopener application.</p>		<p>of optioneering undertaken to date.</p> <p>We expect NGET to provide engagement with us ahead of its proposed submission.</p>
Berkswell 275kV S/S	<p>Partially Justified.</p> <p>We said the needs case was justified as we considered that the intervention would support connection works.</p> <p>The optioneering was partially justified in our review because we did not believe that the wider asset health, connections and future optionality had been sufficiently considered.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, at this stage seeking PCF only. Whilst we agreed with the needs case for the demand connection of HS2, the optioneering was insufficiently robust as NGET stated that further optioneering was required to determine the final HS2 connection.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's alternative options, considerations to address asset health concerns and analysis on long term requirements of the site. This would also benefit any future Load Re-opener application.</p>	<p>NGET provided additional information in its response. It noted that a number of its optioneering considerations were included in the HS2 Act which was considering in 2012 and received assent in 2017, therefore making optioneering changes extremely limited.</p> <p>NGET highlighted that the designs in its original EJP may be subject to change ahead of delivery.</p>	<p>Our decision is that this project remains Partially Justified.</p> <p>While we retain concerns regarding the specific design's extendibility, the pressing concern is the change of design which NGET has informed us of in their consultation response.</p> <p>This project will be in Track 3 as the EJP is Partially Justified.</p> <p>We welcome further engagement with NGET and NESO as to the extendibility and operability of the design as proposed by NGET.</p>
Burwell South 400kV S/S	Not Justified.	NGET informed us in its consultation response	Our decision is that this project is Not Justified

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>We said the needs case was justified as the intervention would support connection works and wider reinforcement works.</p> <p>The optioneering was not justified in our review because we did not believe NGET's optioneering had made consistent assumptions nor was sufficiently developed given the wider context of the proposed solution.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, seeking PCF only. NGET considered an option to construct a new AIS substation however found this to have a higher capital cost when compared to a GIS option. We did not consider NGET had robustly considered the whole life cost differences between the options because the assumptions made appeared contradictory to other EJPs it had submitted. Furthermore, NGET noted that its preference for a GIS substation was driven by visual amenity benefits and subsequent derisking of the planning and consenting process. However, NGET had not provided sufficient information on engagement with Local Planning Authorities (LPA) to justify this approach.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's alternative options and its long-term efficacy against alternative options, specifically outdoor AIS options.</p>	<p>that this project is no longer required.</p>	<p>because this project is no longer required.</p>
<p>Friston 400 kV S/S</p>	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support connection works and wider key reinforcement works.</p>	<p>NGET provided additional information on its Friston Project, in particular NGET detailed the changes to the</p>	<p>Our decision is that this project is Justified. We retain concerns with regards to the design selected, NGETs cost</p>

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>Specifically, the SeaLink (SCD1) ASTI project, which is integral for meeting CP2030 objectives, will connect into this substation. As such we recognised the importance of timely delivery of this project. However, we needed additional justification before being able to confirm that the optioneering is fully justified.</p> <p>The optioneering was considered not justified because NGET had not presented sufficient evidence to discount an AIS option, nor why it had not considered an indoor AIS option to mitigate any coastal pollution risks associated with an outdoor AIS option.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, NGET needed to provide more information on why its GIS solution is optimal on a whole life cost basis.</p>	<p>scope of the project from its original RIIO-ET2 revision through to its present proposed option.</p> <p>NGET provided additional information regarding the cost breakdowns of the works.</p>	<p>analysis and breakdown along with the future implications of the design.</p> <p>We do however recognise that any re-engineering of the project would likely cause consumer detriment through increased constraint costs arising from delays.</p> <p>In future we expect NGET to consider inflight project changes carefully and to request sufficient land from developers in advance to accommodate changes in future needs.</p>
Ickenham HS2	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support connection works.</p> <p>The optioneering was not justified in our review because we did not believe NGET's optioneering had considered a sufficiently wide range of options. Some of which may offer wider consumer benefits.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, seeking PCF only. Whilst we</p>	<p>NGET provided additional information in its response. It noted that a number of its optioneering considerations were included in the HS2 Act which was considering in 2012 and received assent in 2017, therefore making</p>	<p>Our decision is that this project is Justified.</p> <p>While we retain concerns regarding the specific design's extendibility at the time of construction. However, given NGETs utilisation of Double Busbar AIS, if future changes are required,</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>agreed with the needs case for the demand connection of HS2, the optioneering presented was very limited. The HS2 approvals included infrastructure associated with GSPs for HS2, yet NGET remained unaware of how much land is available for the GSP, undermining the optioneering and scope with no evidence around engagement to understand land requirements.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified more information was needed regarding optioneering. Specifically, we required additional detail on substation design and land availability. This would also benefit any future Load Re-opener application.</p>	<p>optioneering changes extremely limited.</p>	<p>they will be less onerous to deliver.</p> <p>In future we expect NGET to consider extendibility of designs ahead of land acquisition and planning application to work towards minimising overall network build while promoting optionality and operation flexibility.</p> <p>This project will be in Track 1 Load Re-opener as the EJP is justified.</p>
<p>Middleton 400 kV S/S</p>	<p>Partially Justified.</p> <p>We said the needs case was justified as we considered that the intervention would support connection works.</p> <p>The optioneering was partially justified in our review because we did not believe NGET's optioneering had considered sufficiently wide range of options. Some of which may offer wider consumer benefits.</p> <p>Whilst we agreed with the needs case, NGET had not adequately demonstrated why an AIS extension had been discounted as an option. Similarly given the condition of Heysham, we were unclear why NGET had not provided an option through Middleton which could have resulted in the ability to replace Heysham.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we</p>	<p>NGET provided additional information regarding its needs case and optioneering along with wider support from SPEN.</p>	<p>Our decision is that this project is Justified.</p> <p>While we retain concerns regarding the specific design's extendibility, we accept that GIS extension is the appropriate option.</p> <p>In future we expect NGET to consider extendibility of designs ahead of land acquisition and planning application to work towards minimising overall network build while</p>

Decision – RIIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	needed to see additional supporting information setting out more detail on NGET's alternative options and their long-term efficacy against alternative options which may support Heysham's future replacement. This would also benefit any future Load Re-opener application.		promoting optionality and operation flexibility. This project will be in Track 1 Load Re-opener.
NS Hinksey Cable	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support network code compliance requirements.</p> <p>The optioneering was not justified in our review because we did not consider NGET's optioneering had considered sufficiently wide range of options which may be of lower whole life cost.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's preferred option and its long-term efficacy against alternative options.</p>	NGET provided a summary of the optioneering considered, as was presented in the original EJP submission.	<p>Our decision is that this project is Partially Justified.</p> <p>While we retain concerns regarding the selected option and its long-term efficacy against alternative options, we accept the solution proposed is required at present.</p> <p>This project will be in Track 1 Load Re-opener.</p>
Quainton HS2	<p>Not Justified.</p> <p>We said the needs case was justified as the intervention would support connection works.</p> <p>The optioneering was not justified in our review because we did not believe NGET's optioneering represented long term value for money.</p> <p>We noted that NGET had requested a needs case assessment only in relation to this project, seeking PCF only. Whilst we agreed with the needs case for the demand connection of HS2, the optioneering presented was very limited. The HS2 approvals included infrastructure associated with GSPs for</p>	NGET provided additional information in its response. It noted that a number of its optioneering considerations were included in the HS2 Act which was considering in 2012 and received assent in 2017, therefore making optioneering changes	<p>Our decision is that this project is Justified.</p> <p>While we retain concerns regarding the specific design's extendibility at the time of construction. However, given NGET's utilisation of Double Busbar AIS, if future changes are required, they will be less onerous to deliver.</p>

Decision – RIIO-3 Final Determinations – National Grid Electricity Transmission (NGET)

EJP Reference/ OSR	Ofgem Draft Determination Position	Draft Determination response summary	Ofgem Final Determination
	<p>HS2, yet NGET remained unaware of how much land was available for the GSP, undermining the optioneering and scope.</p> <p>Therefore, our consultation position was that NGET's proposed solution at Quainton was too underdeveloped for PCF funding. This was on the basis there is limited optioneering to assure us that the preferred solution would be the one delivered.</p> <p>Our consultation position was reflected in the PAM output. For us to be able to assess NGET's optioneering as justified, we needed to see additional supporting information setting out more detail on NGET's preferred option and its long-term efficacy against alternative options.</p>	<p>extremely limited at this stage.</p>	<p>In future we expect NGET to consider extendibility of designs ahead of land acquisition and planning application to work towards minimising overall network build while promoting optionality and operation flexibility.</p> <p>This project will be in Track 1 Load Re-opener.</p>

Appendix 2 - Project Load Re-opener Eligibility

A1.5 The following projects are eligible for Load Re-opener Track 1:

- [REDACTED]