Consultation

Making a positive difference for energy consumers

RIIO-3 Draft Determinations - Cadent

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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 us. We have now assessed these plans.

This document, and others published alongside it, set out our Draft Determinations for the RIIO-3 price controls. These are for consultation and we would like views from people with an interest in RIIO-3 by 20 August 2025. We particularly welcome responses from consumer groups and energy industry network users. We also welcome responses from other stakeholders and the public.

Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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Contents

1. Introduction

Purpose of this document

1.1 This document sets out our Draft Determination consultation positions for the price control areas that are specific to Cadent covering the five-year period from 1 April 2026 to 31 March 2031 (RIIO-GD3). All figures in this document are in 2023/24 prices except where otherwise stated.

What are we consulting on

1.2 In Chapter 2 we set out the Cadent-specific outputs and incentives that we propose should form part of RIIO-GD3, including Licence Obligations (LOs), Price Control Deliverables (PCDs), Use-It-Or-Lose-It (UIOLI) allowances and Output Delivery Incentives (ODIs).[1]

1.3 Chapter 3 describes our assessment of Cadent's Business Plan against the RIIO-3 Business Plan Incentive.

1.4 Chapter 4 sets out how we propose to manage uncertainty during RIIO-GD3 for areas of uncertainty that are specific to Cadent. We do this through uncertainty mechanisms (UMs), specifically volume drivers, re-openers, UIOLIs, pass-through, or indexation mechanisms.

1.5 In Chapter 5 we summarise the outcome of our assessment of Cadent's costs and engineering justifications for the RIIO-GD3 period.

1.6 Chapters 6 and 7 describe our assessment of Cadent's innovation and digitalisation strategies respectively.

Navigating the RIIO-3 Draft Determinations documents

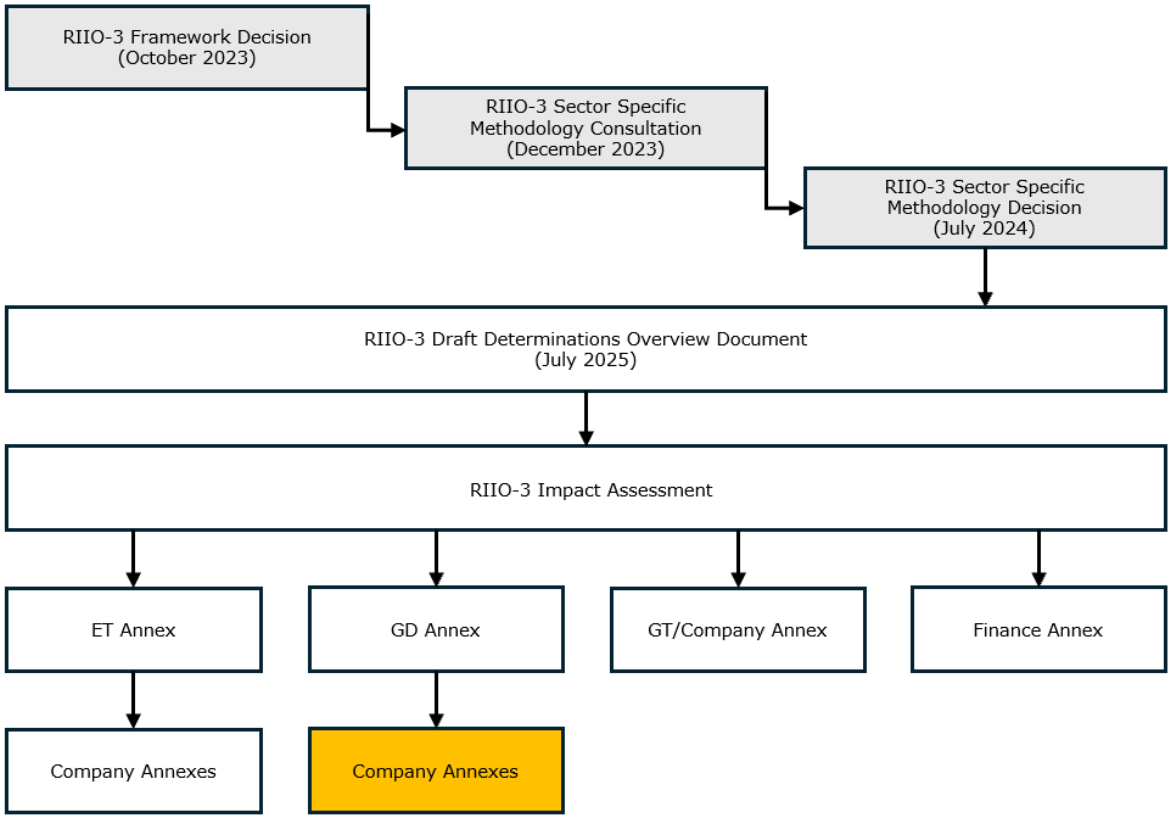
1.7 The RIIO-3 Draft Determinations are comprised of an Overview Document, a Finance Annex and sector annexes for ET, GD and GT. The sector annexes are underpinned by a RIIO-3 Impact Assessment, company annexes[2] and, where relevant, technical annexes. This document is the Cadent Annex. Figure 1 below maps all documents relevant to our suite of RIIO-3 Draft Determinations, including the framework and methodology documents that have preceded it.

1.8 Our Draft 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

[1] ODIs can be either financial (ODI-F) or reputational (ODI-R).
[2] Throughout this document, 'company annexes' refers to the four GDN specific annexes (their abbreviated names are Cadent Annex, NGN Annex, SGN Annex and WWU Annex).

network companies on their stakeholder engagement and business plans, and the feedback received in response to our RIIO-3 Call for Evidence.[3] Further details on our approach to embedding the consumer voice is set out in the RIIO-3 Overview Document.

Figure 1: RIIO-3 Draft Determinations map



An Overview of Cadent's RIIO-GD3 Price Control

1.9 This section summarises the key aspects of Cadent's RIIO-GD3 Draft Determinations, setting out its cost allowances, outputs, UMs, BPI outcome and financing parameters.

[3] https://www.ofgem.gov.uk/call-for-input/call-evidence-electricity-transmission-gas-transmission-and-gas-distribution-business-plans-riio-3

Table 1: Submitted versus proposed allowed baseline totex (£m, 2023/24)

Cost area	**Cadent submitted totex**	**Ofgem proposed totex**	**Difference (£m)**	**Difference (%)**
Baseline totex	8,020.0	6,282.5	-1,737.5	-21.7
Network Innovation Allowance (NIA)	21.5	18.0	-3.5	-16.3
Passthrough	2,230.2	2,230.2	0.0	0.0
Ex ante allowances	10,271.7	8,530.7	-1,741.0	-16.9

Table 2: Proposed outputs package

Output name	**Output type**	**Sector(s)**	**Further detail**
Network Asset Risk Metric (NARM)	PCD, ODI-F and ODI-R	ET, GD, GT	Overview Document
Cyber Resilience	PCD and re-opener	ET, GD, GT	Overview Document
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	GD Annex
Operational Transport Emissions Reduction	PCD	ET, GD	Overview Document
Biomethane Connections	UIOLI	GD, GT	GD Annex
7 and 28 Day Repair Standards	ODI-F	GD	GD Annex
Tier 1 Mains Decommissioned	PCD	GD	GD Annex
Tier 1 Services	PCD	GD	GD Annex
Tier 1 Iron Stubs	PCD	GD	GD Annex
Emergency Response Time	LO	GD	GD Annex
Vulnerability and Carbon Monoxide Allowance (VCMA)	UIOLI	GD	GD Annex
Customer Satisfaction	ODI-F	GD	GD Annex

Output name	Output type	Sector(s)	Further detail
Disconnections Customer Satisfaction	ODI-R	GD	GD Annex
PSR Customer Satisfaction	ODI-R	GD	GD Annex
Complaints Metric	ODI-F	GD	GD Annex
PSR Customer Complaints	ODI-R	GD	GD Annex
Unplanned Interruptions	ODI-F	GD	GD Annex
Collaborative Streetworks	ODI-F	GD	GD Annex
Flow Weighted Average Calorific Value Compliance	PCD	Cadent	This document
Grays Medium Pressure	PCD	Cadent	This document
London Medium Pressure	PCD	Cadent	This document
Tinsley Viaduct Diversion	PCD	Cadent	This document

Table 3: Proposed UMs package

UM name	UM type	Sector(s)	Further detail
Business Rates (prescribed rates)	Pass-through	ET, GD, GT	Finance Annex
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	Finance Annex
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	Re-opener	ET, GD, GT	Overview Document
Co-ordinated Adjustment Mechanism (CAM)	Re-opener	ET, GD, GT	Overview Document
Net Zero	Re-opener	ET, GD, GT	Overview Document
Net Zero Pre-construction Works and Small Net Zero Projects (NZASP)	Re-opener	GD, GT	Overview Document

UM name	UM type	Sector(s)	Further detail
Net Zero And Re-opener Development Fund (NZARD)	UIOLI	GD, GT	Overview Document
Heat Policy	Re-opener	GD	GD Annex
HSE Policy	Re-opener	GD	GD Annex
Tier 2A Mains and Services Replacement	Volume driver	GD	GD Annex
Diversions and Loss of Development Claims	Re-opener	GD	GD Annex
Complex Distribution Systems	Re-opener	GD	GD Annex
Safety Disconnections	Volume driver	GD	GD Annex
New Large Load Connections	Re-opener	GD	GD Annex
Specified Streetworks	Re-opener	GD	GD Annex
Central Data Service Provider (CDSP) Costs	Pass-through	GD	GD Annex
Miscellaneous	Pass-through	GD	GD Annex
NTS exit capacity	Pass-through	GD	GD Annex
Pension deficit charge adjustment	Pass-through	GD	GD Annex
Shrinkage	Pass-through	GD	GD Annex
Theft of gas (supplier responsible)	Pass-through	GD	GD Annex
Third-party damage and water ingress	Pass-through	GD	GD Annex
London Subways and Tunnels	Re-opener	Cadent	This document

Table 4: Proposed BPI outcome

BPI Stage	Cadent outcome (Bps RoRE)	Further detail
Stage A	Pass	Overview Document and this document
Stage B	-4.17 bps	Overview Document, GD Annex and this document
Stage C	4.85 bps	Overview Document and this document

Table 5: Proposed financing parameters

Area	**Cadent outcome**	**Further detail**
Notional gearing	GD&T: 60%	Finance Annex
Cost of equity	GD&T: 6.04%	Finance Annex
Cost of debt (semi-nominal)	GD&T: 4.45%	Finance Annex
Weighted average cost of capital (semi-nominal)	GD&T: 5.09%	Finance Annex
Expected RoRE ranges	GD: 4.16% - 7.78%	Finance Annex

2. Outputs and incentives

2.1 This chapter sets out our views on outputs and incentives that are specific to Cadent, including for bespoke proposals submitted through its business plan and Environmental Action Plan (EAP).

Flow Weighted Average Calorific Value (FWACV) Compliance PCD

Purpose: To hold Cadent to account for delivering upgrades to aging FWACV systems.

Benefits: To protect consumers if any discrete capital investment is not delivered.

Background

2.2 Cadent's FWACV compliance project aims to upgrade aging FWACV systems to modernise all its systems to the same standard. Modernising these systems with ultrasonic meters will provide improved accuracy and reliability and reduce the likelihood of service disruptions. It will also aim to provide adaptability, which will support the integration of renewable gases, such as biogas and hydrogen, into the energy system.

2.3 This project was initiated in RIIO-GD2 and Cadent are on track to complete all 18 systems that it was funded to deliver, as well as completing the design of the first batch for RIIO-GD3 (10 systems).

2.4 In its business plan, Cadent proposed to continue this project in RIIO-GD3.

Consultation position and rationale

Summary of consultation position

PCD type: Evaluative

Output to be delivered: Design and install 28 FWACV systems to replace current FWACV systems.

Baseline cost allowance: Costs for this project will be determined in our Final Determinations.

Reporting to stakeholders: Annual reporting through the RRPs.

Delivery date: 31 March 2031

Ability to change PCD during the price control period?: No

Applied to: Cadent

PCD type

2.5 We consider the needs case and optioneering for this proposal justified, and we propose to introduce an evaluative PCD for it.

2.6 We consider modernising Cadent's metering systems will benefit consumers through providing increased reliability and adaptability, and reduced likelihood of service disruptions. The investment also upgrades the systems to meet standards set out in the Uniform Network Code. Therefore, we consider this investment ensures standard compliance and significantly improves the overall health and resilience of Cadent's assets. Additionally, we consider the optioneering justified, with this proposal the most cost-efficient of the options presented in Cadent's Business Plan.

2.7 We consider an evaluative PCD the most appropriate mechanism to ensure Cadent are held to account for delivery of the project as the scope between sites could vary significantly.

Output to be delivered

2.8 These upgrades replace the current FWACV systems, including the key equipment which make up these systems. The key equipment, required at all 28 sites, is the following:

- the Calorific Value Determination Device (with new kiosk);
- a metering system - all 28 sites would install twin stream ultra-sonic meters systems (56 streams);
- a flow computer and FWACV rack; and
- any immediately associated electrical, instrumentation, civil structure, housing, or pipework assets.

Baseline cost allowance

2.9 We propose to finalise costs for this PCD in our Final Determinations. This is because two different costs were submitted as part of Cadent's Business Plan. In the Engineering Justification Paper (EJP) for FWACV Compliance, the funding requested was £53.91m. However, in its BPDT, Cadent submitted £55.90m for this project. We therefore need further clarity to understand this discrepancy before proposing a baseline cost allowance.

Questions

CADQ1.	Do you agree with our proposed design of Cadent's FWACV Compliance PCD?

London Medium Pressure PCD

Purpose: To fund replacement of specific sections of Cadent's London Medium Pressure project during RIIO-GD3.

Benefits: To protect consumers if any discrete capital investment is not delivered.

Background

2.10 This PCD is to fund the continuation of the London Medium Pressure project which began in RIIO-GD1 and was also funded in RIIO-GD2. This non-mandatory repex project involves replacing large diameter, medium pressure iron mains in central London.

2.11 In our SSMD, we decided to retain this evaluative PCD in RIIO-GD3, as the project is ongoing until 2031. We consider that this PCD is working well, with Cadent on track to complete its LMP mains replacement and governor replacement target for RIIO-GD2.

2.12 Cadent submitted a business plan proposal for the next phase of the project in RIIO-GD3, planning to replace another 15.87km of high-risk Tier 3 iron mains. We propose to approve this workload.

Consultation position and rationale

Summary of consultation position

PCD Type: Evaluative

Output to be delivered: Replacement of 15.87km of high-risk Tier 3 iron mains in Cadent's LMP project

Baseline cost allowance: £83.4m

Reporting to stakeholders: Independently audited engineering report confirming the completion of each section of the project, as well as annual reporting through the RRPs

Delivery date: 31 March 2031

Applied to: Cadent North London

Output to be delivered and baseline cost allowance

2.13 We propose to accept the full workload for the project as our engineering review concluded that the project scope was clearly defined, and the optioneering was justified.

2.14 The baseline cost allowance has been reduced through cost assessment benchmarking from Cadent's proposed £88.52m to £83.4m. We consider that this is an efficient cost allowance to deliver the required works.

2.15 An ex post evaluation of the delivery status of the project will assess whether any adjustment of allowances is necessary to account for under delivery. This will allow us to recover costs for customers in the event that Cadent fails to deliver the project.

CADQ2. Do you agree with the proposed design of Cadent's London Medium Pressure PCD?

Grays Medium Pressure PCD

Purpose: To hold Cadent to account for delivering specific sections of the Grays Medium Pressure project during RIIO-GD3.

Benefits: To protect consumers if any discrete capital investment is not delivered.

Background

2.5 In its business plan, Cadent proposed a new bespoke PCD for a £25.4m project to replace 42.5km of its medium pressure network in its North London network during RIIO-3. Cadent provided evidence that the Grays Medium Pressure pipeline leaks significantly more than other medium pressure steel pipelines within the network. It also evidenced that when these leaks occur there is a far greater chance that they will result in gas being detected in buildings.

2.51 We propose to accept Cadent's Grays Medium Pressure project as a bespoke PCD.

Consultation position and rationale

Summary of consultation position

PCD type: Evaluative

Output to be delivered: Replacement of 42.5km of medium pressure network in Cadent's Grays Medium Pressure project

Baseline cost allowance: £25.4m

Reporting to stakeholders: Independently audited engineering report confirming the completion of each section of the project, as well as annual reporting through the RRPs

Delivery date: 31 March 2031

Applied to: Cadent North London

PCD type

2.16 We propose to fund this project through an evaluative PCD as it relates to a specific project with defined deliverables set out in Cadent's Business Plan. A PCD will enable us to claw back any funds that are not used to deliver the project, protecting consumers in the event of non-delivery or under-delivery of the project. We propose to use an ex post evaluation to establish whether Cadent has met the required output by the end of RIIO-GD3.

Output to be delivered and baseline cost allowance

2.17 We propose to set the output for the PCD based on Cadent's business plan proposal to replace 42.5km of the Grays Medium Pressure pipeline during RIIO-GD3.

2.18 Cadent's Business Plan considered four options with the proposed option providing the best payback and reaching the right balance of reducing risks against cost. A cost breakdown was provided and there was a clear explanation on how these costs have been arrived at. Our engineering review concluded that Cadent provided clear justification of the needs case, optioneering and scope for the project with challenges and risks outlined. Therefore, we propose to provide Cadent the funding in full of £25.4m.

Reporting to stakeholders

2.19 We propose to require annual reporting in the RRPs, which will enable us to monitor the project's status, including timelines and costs. Also, we propose to require an independently audited engineering report confirming the completion of each section of the project.

Questions

CADQ3. Do you agree with our proposed design of the PCD for Cadent's Grays Medium Pressure project?

Tinsley Viaduct Diversion PCD

Purpose: To hold Cadent to account for delivering replacement of pipelines which are in poor state of repair at the Tinsley Viaduct Site.

Benefits: To protect consumers if any discrete capital investment is not delivered.

Background

2.20 The Tinsley Viaduct pipeline was constructed in 1968 and is now in a poor state of repair. It is estimated to serve 160,000 customers.

2.21 In its business plan, Cadent proposed a £28.4m project to decommission and divert two intermediate pressure pipelines located on the underside of the M1 Tinsley Viaduct which are in poor condition and increasingly expensive to maintain. This is an ongoing project from 2023 and expected to run to 2031.

2.22 We propose to accept the Tinsley Viaduct Diversion project as a bespoke PCD.

Consultation position and rationale

Summary of consultation position

PCD type: Evaluative

Output to be delivered: Diversion of two intermediate pressure pipelines located on the underside of the M1 Tinsley Viaduct.

Baseline cost allowance: £27.2m

Reporting to stakeholders: Independently audited engineering report confirming the completion of each section of the project, as well as annual reporting through the RRPs

Delivery date: 31 March 2031

Applied to: Cadent

PCD type

2.23 We propose to fund this project through an evaluative PCD as it relates to a specific project with defined deliverables set out in Cadent's Business Plan. A PCD will also allow us to claw back any funds that were not used to deliver the project, protecting consumers in the event of non-delivery or under-delivery of the project. We propose to use an ex post evaluation to establish whether Cadent has met the required output by the end of RIIO-GD3.

Output to be delivered and baseline cost allowances

2.24 We propose to set the output for the PCD based on Cadent's business plan proposal for two intermediate pressure pipelines which are located on the underside of the M1 Tinsley Viaduct during RIIO-GD3. We consider this to be a well-defined project with high scope confidence.

2.25 We propose to provide funding in full for Cadent's Tinsley Viaduct Diversion project of £28.4m. While Cadent did not propose the least cost option, we consider this to be appropriate due to the issues and risks associated with routing a pipeline through private land (the design of the least cost option).

Cadent's proposed option uses access to public highways and municipal land to avoid those risks.

Reporting to stakeholders

2.26 We propose to require annual reporting through the RRPs, allowing us to understand and analyse project status, including timelines and costs. Also, we propose to require an independently audited engineering report confirming the completion of each section of the project.

Questions

CADQ4. Do you agree with our proposed design of the PCD for the Tinsley Viaduct Diversion project?

Network Asset Risk Metric (NARM)

2.27 Table 6, 7, 8 and 9 summarise the results of our assessment and the proposed Baseline Network Risk Outputs (BNRO) per NARM asset category. Further detail about the NARM methodology can be found in the overview document.

Table 6: EoE proposed BNRO per NARM asset category

Asset Category	BNRO (R£m)
LTS Pipelines (Piggable)	0
LTS Pipelines (Non Piggable)	0
Iron Mains	62.24
Steel Mains	98.20
Other Mains	0
Services	71.38
Risers	2.36
Offtake Filters	0
PRS Filters	0
Offtake Slamshut/Regulators	0
PRS Slamshut/Regulators	0
Offtake Pre-heating	0
PRS Pre-heating	0.36
Odorisation & Metering	0.01
District Governors	0
I&C Governors	0
Service Governors	0
Total	**234.55**

Table 7: Lon proposed BNRO per NARM asset category

Asset Category	BNRO (R£m)
LTS Pipelines (Piggable)	0
LTS Pipelines (Non Piggable)	0
Iron Mains	31.91
Steel Mains	45.77
Other Mains	0
Services	112.70
Risers	13.04
Offtake Filters	0
PRS Filters	0
Offtake Slamshut/Regulators	0
PRS Slamshut/Regulators	0
Offtake Pre-heating	0
PRS Pre-heating	0.54
Odorisation & Metering	0.00
District Governors	0
I&C Governors	0
Service Governors	0
Total	**203.96**

Table 8: NW proposed BNRO per NARM asset category

Asset Category	BNRO (R£m)
LTS Pipelines (Piggable)	0
LTS Pipelines (Non Piggable)	0
Iron Mains	18.11
Steel Mains	134.52
Other Mains	0.96
Services	161.78
Risers	2.46
Offtake Filters	0
PRS Filters	0
Offtake Slamshut/Regulators	0
PRS Slamshut/Regulators	0
Offtake Pre-heating	0.63
PRS Pre-heating	0.35
Odorisation & Metering	0.01

District Governors	0
I&C Governors	0
Service Governors	0
Total	**318.81**

Table 9: WM proposed BNRO per NARM asset category

Asset Category	**BNRO (R£m)**
LTS Pipelines (Piggable)	0
LTS Pipelines (Non Piggable)	0
Iron Mains	18.28
Steel Mains	58.86
Other Mains	0
Services	44.94
Risers	1.40
Offtake Filters	0
PRS Filters	0
Offtake Slamshut/Regulators	0
PRS Slamshut/Regulators	0
Offtake Pre-heating	0
PRS Pre-heating	0
Odorisation & Metering	0.00
District Governors	0
I&C Governors	0
Service Governors	0
Total	**123.48**

2.28 Generally, we are able to align the data in Cadent's NARM Business Plan Data Template (BPDT) with the volume data submitted in its business plans and Engineering Justification Papers (EJPs).

2.29 We acknowledge that our adjustments to the submitted BNRO, based on proposed volume changes, involve a degree of approximation and may not be fully accurate at this time. This is primarily because the data we used to derive our view of the BNRO was at a much more aggregated level than that available to the network companies, and that which will be used to derive the final BNRO. Additionally, there was difficulty aligning the data for some asset categories. However, we consider this acceptable, as the adjustments are based on reasonable assumptions. Reaching a final BNRO may involve several iterations of recalculation by the network companies, and we will work with closely with them to achieve this.

2.30 We propose to continue to use the NARM funding categories outlined in the NARM Handbook, which sets out the scope of the NARM Funding Adjustment and Penalty Mechanism and its interaction with other mechanisms.[4]

2.31 All capex NARM Asset proposed replacement and refurbishment workload for Cadent is proposed to be allocated to Category A1 and would be covered by the NARM Funding Adjustment and Penalty Mechanism.

2.32 For repex, Tier 1 and associated services are proposed to be funded and incentivised through the Tier 1 mains and the Tier 1 services PCDs. We propose that Tier 2A mains and associated services be funded by a volume driver. These are proposed to be included in Category A2 (Funding Under a Separate Mechanism). We propose that Diversions are subject to a diversions re-opener, and reported under A3 (Ring-fenced Project/Activity). These workloads would therefore not be funded under NARM.

2.33 In addition, we propose that the following repex projects will be assigned to A3 (Ring-fenced Project/Activity) and their associated outputs will therefore not contribute towards the delivery of BNRO:

- London Medium Pressure.
- Greys Medium Pressure.

2.34 All repex replacement and refurbishment not tied to a PCD or a volume driver is proposed to be allocated to Category A1 and would be covered by the NARM Funding Adjustment and Penalty Mechanism.

Outputs we propose to reject

EAP: Advanced Leakage Intervention Programme (ALIP)

Consultation position and rationale

2.35 As part of its EAP, Cadent proposed £391m of repex funding to support targeted proactive leakage repair, replacement and remediation. This programme would increase non-mandatory asset replacements and remediations from 231km, under the RIIO-GD2 approach, to 750km in RIIO-GD3 by adopting a proactive strategy focused on addressing the leakiest pipes. This proposal is the same as the Cost Beneficial Mains Replacement EJP that Cadent submitted.

2.36 We propose to reject Cadent's ALIP proposal on engineering grounds and only fund £118.4m for Cadent to deliver 231km of non-mandatory repex based on

[4] https://www.ofgem.gov.uk/sites/default/files/2024-07/NARM_Handbook_v3.1_draft.pdf

the RIIO-GD2 approach. Further details can be found in Appendix 1 of this document.

2.37 Further details on our RIIO-3 EAP policy design and a high-level cross-sector review can be found in Chapter 4 of the Overview Document, while the GD-specific review can be found in Chapter 3 of the GD Annex.

CADQ5. Do you have any views on our proposal to reject Cadent's Advanced Leakage Intervention programme and fund its non-mandatory repex programme based on the RIIO-GD2 approach?

EAP: Net Zero Transition Planning

Consultation position and rationale

2.38 In its EAP, Cadent proposed a £24.7m investment for planning and engagement with the National Energy System Operator (NESO) in its role developing Regional Energy Strategic Plans (RESPs) to support local area energy plans and whole system solutions.

2.39 We propose to reject Cadent's proposal. The proposal suggests lead customer (or stakeholder) accountability for NESO strategic planning activities lies with the GDN – this is not aligned with the intent of the RESP policy, in which NESO holds this accountability. It is for NESO to design its methodology for place-based engagement, but it should coordinate rather than replicate existing activity in gathering whole system insight from stakeholders. Cadent will be working over eight RESP regions, however only in areas which overlap with its existing network areas, so this should not entail a step-change in Cadent's engagement requirements with regional stakeholders. Additionally, the detailed whole-system optimisation described in the proposal will also be a function provided by the RESP. Other activities, including provision of data to support the RESP and engagement with the RESP processes would not be expected to be time and resource intensive enough to require such significant investment.

2.40 Please see Chapter 3 of the GD Annex for further detail on our approach to funding costs for RESP coordination and engagement activities.

CADQ6. Do you agree with our proposal to reject Cadent's Net Zero Transition Planning proposal?

Capacity Upgrades PCD

Consultation position and rationale

2.41 Cadent proposed a £20.19m PCD for capacity upgrades on its above 7 bar offtake and pressure reduction system sites. Cadent has over 600 above 7 bar sites, each of which play a role in the transportation of gas across its four networks.

2.42 Cadent needs to satisfy the condition to supply gas up to and including a 1 in 20 peak year demand. As part of the annual demand forecasting process, it has identified several sites where there is insufficient capacity to meet the 1 in 20 peak year demand without a capacity increase. This increase in demand is attributed to localised connections coming onto its networks, such as power generation sites to produce electricity, new housing or industrial developments.

2.43 We are proposing to reject this PCD as we propose to fund this work through NARM to ensure consistency across all the GDNs and therefore do not consider a PCD is required.

CADQ7.	Do you agree with our proposal to reject Cadent's Capacity Upgrades PCD?

West Winch Pipeline PCD

Consultation position and rationale

2.44 Cadent proposed an £11.34m PCD for feasibility and design studies for managing the West Winch high-pressure pipeline system. The West Winch Pipeline is a section of non-piggable high-pressure major accident hazard pipeline on the Local Transmission System. The pipeline was commissioned in the 1960s with spurs added throughout the 1970s. The design and construction methods used prior to the publication of industry standard IGEM/TD/1 had limitations, and Cadent is now seeing an emerging trend of pipeline failures associated with pipeline fittings.

2.45 We propose to reject this proposal on engineering grounds, please refer to Appendix 1 of this document for further details.

CADQ8.	Do you agree with our proposal to reject Cadent's West Winch Pipeline PCD?

3. Business Plan Incentive (BPI)

3.1 This chapter sets out Cadent's results for each stage of the BPI, along with the rationale for the result given. For information on what the BPI is and how it is assessed, see the Overview Document.

3.2 In assessing business plans against the BPI Stages A and C, we assessed each business plan on its own merit based on criteria set out in the Sector Specific Methodology Decision (SSMD) and Business Plan Guidance. A consistency check was undertaken across companies and sectors to ensure we were being consistent in our assessment; but the business plans were not assessed against one another. For Stage B, depending on the nature of the assessment methodology the companies could be compared against one another within each sector. For further information on Stage B, see Chapter 6 of the GD Annex.

3.3 Table 10 sets out our proposed BPI results for Cadent and where further information on each stage and the result and rationale can be found.

Table 10: Proposed BPI results for Cadent

BPI Stage	Assessment result	Further detail
A	Pass	Overview document for approach to assessment. This chapter for specific views on the assessment result.
B	-4.17 bps	Overview Document for approach to assessment. Chapter 4 of the gas distribution sector document for the network results compared within the sector and an explanation of the assessment methodology. This chapter for specific views on the assessment result.
C	4.85 bps	Overview Document for approach to assessment. This chapter for specific views on the assessment result.
Total bps	0.68 bps	
Total 5-year monetary equivalent, £m	1.6	

Stage A

3.4 Following our assessment, we consider that Cadent met all the minimum requirements, as set out in the Business Plan Guidance, and has passed Stage A of the BPI.

Stage B

3.5 The overall assessment result for Cadent is -4.18 bps, which corresponds to the weighted average of the outcomes from comparative (-4.88 bps) and bespoke (0.71 bps) assessment, rounded to two decimal points. The following sections provide detail on the assessment of each cost category.

Comparatively assessed costs

3.6 The tables below sets out the comparatively assessed costs and their weightings within the overall Stage B assessment score.

Table 11: BPI scoring for comparatively assessed costs by network

Comparatively assessed cost category	Weighting	Efficiency benchmark	Efficiency score	BPI reward/penalty (bps)
EoE - Econometric Modelling	91%	0.90	1.03	-7.06
EoE - Ratio Benchmarking	5%	0.99	1.03	-0.08
Lon - Econometric Modelling	84%	0.90	1.07	-8.41
Lon - Ratio Benchmarking	9%	0.99	1.06	-0.26
NW - Econometric Modelling	93%	0.90	0.98	-4.14
NW - Ratio Benchmarking	4%	0.99	1.08	-0.15
WM - Econometric Modelling	93%	0.90	0.90	2.22
WM - Ratio Benchmarking	4%	0.99	0.96	1.76
Cadent Total Comparative				-4.88

Bespoke costs

3.7 The table below sets out bespoke costs assessed and the result and rationale for each one assessed.

Table 12: BPI scoring for bespoke cost activities for EoE

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
ALD (Total work management)	0.24%	0.049	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
ALD capex	0.30%	0.060	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
DPLA	0.06%	0.012	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
Cyber opex	1.15%	0.230	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber UIOLI	0.04%	0.008	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber capex	0.61%	0.121	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Tinsley Viaduct	1.16%	0.232	Robust needs case justification, with high scope confidence, and options are considered with detailed cost estimate.
PSUP capex	0.03%	0.006	Robust cost data are provided in BPDT, supplemented with supporting evidence in BPDT commentary and EJP.
Total		0.718	

Table 13: BPI scoring for bespoke cost activities for Lon

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
ALD (Total work management)	0.11%	0.022	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
			quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
ALD capex	0.01%	0.001	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
DPLA	0.03%	0.006	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
Cyber opex	0.73%	0.146	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber UIOLI	0.02%	0.005	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber capex	0.39%	0.077	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
PSUP capex	0.08%	0.016	Robust cost data are provided in BPDT, supplemented with supporting evidence in BPDT commentary and EJP.
London Medium Pressure (Capex)	1.01%	0.202	Robust overall objectives. Needs case are based on modelled risks, and options are presented in detail.
Grays Medium Pressure (Capex)	0.07%	0.015	Robust needs case justification by high level leakage and subsequent risks. The chosen option gives the best payback with a good balance of risk reduction and costs. The work scope is clear, and sufficient detail has been provided on the challenges, risks, and cost breakdown.
London Medium Pressure (Repex)	2.99%	0.597	Comprehensive overall objectives. Needs case are based on modelled risks, and options are presented in detail.

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
Grays Medium Pressure (Repex)	1.08%	0.217	The needs case is justified by high level leakage and subsequent risks. The chosen option gives the best payback with a good balance of risk reduction and costs. The work scope is clear, and sufficient detail has been provided on the challenges, risks, and cost breakdown.
Total		1.304	

Table 14: BPI scoring for bespoke cost activities for NW

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
ALD (Total work management)	0.23%	0.045	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
ALD capex	0.19%	0.037	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
DPLA	0.09%	0.017	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
Cyber opex	1.10%	0.110	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber UIOLI	0.04%	0.007	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber capex	0.58%	0.116	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
PSUP capex	0.02%	0.003	Robust cost data are provided in BPDT, supplemented with supporting evidence in BPDT commentary and EJP.

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
Total		0.336	

Table 15: BPI scoring for bespoke cost activities for WM

Bespoke Cost	Weighting	BPI reward/penalty (bps)	Rationale
ALD (Total work management)	0.24%	0.048	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
ALD capex	0.10%	0.019	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
DPLA	0.12%	0.023	The cost evidence is robust and credible when compared with industry standard and benchmark, particularly the EJP is of high quality and clear on costs associated with technology, the driver, vehicle and licence. The unit costs are robustly justified with clear rationale. The input volumes and funded activity are clearly connected.
Cyber opex	1.04%	0.209	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber UIOLI	0.09%	0.017	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
Cyber capex	0.58%	0.115	Robust cost evidence aligned with Ofgem guidance, and costs are broadly comparable with industry benchmarks.
PSUP capex	0.05%	0.011	Robust cost data are provided in BPDT, supplemented with supporting evidence in BPDT commentary and EJP.
Total		0.442	

Company results

3.8 The company level result for Cadent has been calculated as the weighted average of its four networks. Total BPI and comparative BPI are reported as the

bps of Cadent's RoRE over RIIO-3 years, and not a simple summation of BPI components over all the four networks. BPI for each network's bespoke cost are the total of individual projects.

Stage C

3.9 The below sections set out the assessment results and rational for the Clarity and Business Plan Commitments assessments for Stage C of the BPI.

Clarity

Assessment result: 4.2 bps.

3.10 Cadent's Business Plan received a mixed assessment. It scored 'outstanding' against 'layout and structure', 'accessibility and conciseness' and 'coherence and justification', and 'acceptable' against 'relevance of information' and 'clarity of information that supports the demonstration of value to consumers'.

3.11 The business plan's layout and structure was coherent and easy to navigate. It contained a useful and effective combination of text, tables and charts, making it very easy to gather key information. There were a small number of tables where data did not match or add up correctly. However, the net benefit of their inclusion outweighed the intermittently incorrect data. Cadent made it clear whether an investment or commitment was new or a continuation from RIIO-GD2 and the business plan contained clear signposting to other relevant sections and supporting documents, making it easy to navigate the document. There were some examples of a lack of signposting for certain important details. However, on the whole, the quality, frequency and clarity of signposting was a net positive. As such, the layout and structure was considered 'outstanding'.

3.12 Cadent's Business Plan was presented in accessible language, and it delivered a substantial amount of information within the page limit. Cadent's effective use of subheadings, summary tables and case studies supported the business plan's accessibility and ensured that it was not filled with long paragraphs of impenetrable text. The case studies were helpful, concise examples to provide context without using overly technical language. Cadent's Cost and Benchmarking annex was the easiest to read of all the GDNs. Its Asset Management Strategy also provided useful tables mapping out investments, EJPs and drivers, and its NARM Commentary provided well explained definitions and assumptions at the beginning of the document. There were some minor flaws in Cadent's submission, such as a small font used within the EAP, some misprints within the vulnerability strategy and some graphics in the Cyber Resilience Investment Documents were difficult to view (and needed to be re-

submitted). However, overall the documents were concisely presented and delivered in accessible language, so it was considered 'outstanding' in this area.

3.13 Cadent's Business Plan was coherent and clearly delineated the thread between stakeholder engagement and its proposed activities, where appropriate. Its key areas of focus were clear and integrated throughout the business plan. Its NARM data was clear and the Cost and Benchmarking document had a logical flow, with information that was well supported and clearly set out evidence and conclusions. There were some examples of a lack of coherence or justification for activities or positions, such as little evidence provided to support its view that local authorities supported expanding the Collaborative Streetworks ODI-F, or how this could be implemented. Additionally, certain cost estimates, timelines and workloads for property portfolio costs were not provided and the NARM approach differed across papers. However, overall, Cadent's Business Plan and accompanying documents were coherently produced, offering clear and well-structured justifications for proposed activities, and were therefore rated 'outstanding' in this area.

Business Plan Commitments

Overall assessment result: 0.65 bps

Outcome: Infrastructure fit for a low-cost transition to net zero

Assessment result: 0 bps

3.14 Each of the criteria for this outcome were rated as 'acceptable'.

3.15 While there were some 'outstanding' elements under the criteria of 'stretching performance' and 'consumer value and additionality' – notably Cadent's target to increase biodiversity and its commitment to eliminate single use plastics – most elements wore considered 'acceptable'. For example, Cadent's shrinkage target does not appear particularly stretching when compared to its performance in RIIO-GD2, where it outperformed other GDNs. While we consider Cadent's shrinkage target acceptable, we consider this target could have been more ambitious, particularly given the move to observed measurement and improved prioritisation planned for RIIO-GD3.

3.16 Certain targets were not quantifiable, which made it more challenging to assess them against some of the criteria, such as deliverability. We considered Cadent's new company proposals did not stretch the organisation's potential but were broadly acceptable.

3.17 On the whole, if Cadent deliver on each of their commitments, they will provide an acceptable level of consumer value in addition to lowering their greenhouse gas emissions.

Outcome: Secure and resilient supplies

Assessment result: -1.3 bps

3.18 Cadent's Business Plan commitments in this outcome category were generally acceptable, scoring as such for 'deliverability', 'consumer value and additionality' and 'stretching performance'. However, it scored 'poor' against 'new company proposals'.

3.19 Generally, there was an acceptable level of evidence provided to support the deliverability of Cadent's commitments across this outcome category. It highlighted its prioritisation of consumer value and additionality on a number of occasions throughout its business plan, including when discussing safety and environmental considerations.

3.20 However, we are proposing to one of Cadent's flagship new company proposals, the ALIP, on engineering grounds. We did not consider Cadent to have provided sufficient evidence to support significant volume increases in its non-mandatory repex workloads through this programme. We consider that the roll out of ALD and the DPLA should result in better targeting and prioritisation of interventions, rather than significantly increase the volume of interventions. This proposed rejection had a negative impact on 'new company proposals', resulting in its penalty for this outcome.

Outcome: High quality of service from regulated firms

Assessment result: 1.95 bps

3.21 Overall, Cadent's Business Plan commitments for this outcome are considered ambitious, with 'deliverability', 'consumer value and additionality' and 'stretching performance' rated as 'outstanding'. The commitments are generally underpinned by substantial stakeholder research to identify consumer priorities and justify needs cases, with strong evidence to support their successful delivery. However, 'new company proposals' was given a 'poor' rating.

3.22 Cadent's vulnerability proposals seek to build on a strong base in RIIO-GD2 to deliver more projects with greater reach and impact, while reducing the overall funding required. Its commitment to save the most vulnerable 250,000 customers £2,000 each (£500m in total) is considered stretching, while its proposals to further map and target vulnerability initiatives and develop innovative projects is to be commended for its additional consumer value. We

also welcome Cadent's investors continuing to support the Cadent Foundation in RIIO-GD3 by directly investing at least 1% of post-tax profits back into the communities they serve to deliver further social benefit. This builds on the £25m of additional funding investors provided in RIIO-GD2.

3.23 Cadent's Customer Satisfaction and Complaints Metric ODI-F performance in RIIO-GD2 is very high, evidencing its commitment to customer service in RIIO-GD2. While its RIIO-GD3 proposals are not significantly above its current performance levels, they are deliverable. Its commitment to upper-quartile performance is also welcome and will benefit consumers, especially those in vulnerable situations. We also consider Cadent's MOB Unplanned Interruptions ODI-F targets to be stretching performance.

3.24 However, we consider Cadent's new company proposals to have limited justification of consumer benefit or evidence of how they would be delivered. Cadent proposed researching, developing and trialling a Services Beyond the Meter blueprint in RIIO-GD3 with the aim of reducing emergency callouts and vulnerability. Cadent will absorb the costs into its baseline allowance and share results with us and the other GDNs ahead of RIIO-GD4. We welcome efforts to further knowledge and understanding, and to reduce emergency callouts and consumer vulnerability. However, we are concerned that this research may seek to expand the GDNs' role in consumer vulnerability beyond their existing areas of competence, activity and consumer interaction, which we would not currently support.

3.25 Cadent also proposed to trial options for how the Customer Satisfaction survey could be enhanced for 'worst-served customers' in RIIO-GD4. This does not align with our SSMD decision that these customers are already sufficiently accounted for through the existing CSAT surveys and Complaints Metric. Therefore, given insufficient evidence of need, we consider there to be limited consumer value in this proposal.

3.26 We consider Cadent's proposal to expand the Collaborative Streetworks ODI-F across GB was lacking in sufficient detail to support implementation and did not provide the justification requested in the Business plan Guidance. Cadent failed to provide evidence of interest from specific local authorities, nor did it identify regions where the incentive should be expanded to. Additionally, it did not outline how it proposed the incentive could work in RIIO-GD3 - for example, it lacked detail criteria for determining expansion areas or on how key ODI-F design elements, such as incentive exposure and rates, could be adapted to support its proposal. As a result, while we are proposing to expand the

Collaborative Streetworks ODI-F across GB, this required substantial policy development on our part. Accordingly, we rated Cadent's Business Plan proposal as 'poor'.

Questions

CADQ9.	Do you agree with our view that Cadent passed all of the minimum requirements and as such are considered to have passed Stage A of the BPI?
CADQ10.	Do you agree with our assessment results for Cadent against Stage B of the BPI?
CADQ11.	Do you agree with our assessment results for Cadent against Stage C of the BPI?

4. Managing uncertainty

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

London Subways and Tunnels Re-opener

Purpose: To increase Cadent North London's Tier 1 PCD allowance, if required, to enable it to comply with London specific safety-related legislation that ensures that where a utility subway is present in London, gas assets shall not be sited in the street.

Benefits: Enables Cadent's Tier 1 mains replacement programme to be flexible to comply with legislation relating to the proximity to subways in London.

Background

4.2 Our GD Annex sets out our proposal for funding Tier 1 repex. However, in London there is additional safety legislation relating to subways and tunnels which requires Cadent to repair any assets that are sited in the street bounded by London County Council (Subways) Act 1983 and the City of London (various Powers) Act 1900.[5]

4.3 Cadent proposed a bespoke re-opener to adjust its allowance for the works carried out within London Subways and Tunnels due to the complexities presented in their business plan. The project involves mains replacement works which are aligned with the Tier 1 repex programme and must be replaced by the end of RIIO-GD3.

4.4 Cadent has proposed to carry out feasibility studies in the first two years of RIIO-GD3 due to the variance in site-specific engineering constraints and the range of compliant engineering solutions available to repair the assets. It allocated £500,000 between two projects - London Subways and Tunnel and London Medium Pressure – to fund feasibility studies and evaluate potential engineering solutions.

4.5 We propose to introduce a bespoke re-opener which will allow the Tier 1 Iron Mains Decommissioned PCD allowance to be adjusted to account for this uncertainty. The re-opener window will be aligned with Cadent's timing of 2 years to plan and determine robust engineering solutions.

[5] 'Section 3 Health and Safety at Work Act 1974', 'Regulation 13 of the Pipeline Safety Regulations 1996' and the 'London County Council (Subways) Act 1893'/'City of London (Various Powers) Act 1900'.

Consultation position and rationale

Summary of consultation position

UM type: Re-opener

Scope: This re-opener can be triggered to adjust Cadent North London's Tier 1 Mains Decommissioned PCD allowance to account for additional engineering costs relating to requirements from specified safety legislation for tunnels and subways.

Re-opener window: 24 April 2028 – 30 April 2028.

Authority triggered: No

Materiality threshold: In line with default set out in Chapter 6 of the Overview Document.

Applied to: Cadent North London

UM type

4.6 We propose to introduce a London Subways and Tunnels Re-opener as Cadent are planning to undertake feasibility studies during the first two years of RIIO-GD3 to inform further work in this area. As the costs and volumes are uncertain, we consider a re-opener is appropriate to account for any additional expenditure incurred on top of the Tier 1 Iron Mains Decommissioned allowance following the feasibility studies.

Scope

4.7 We propose the scope of the re-opener includes adjustments to the Tier 1 Mains Decommissioned PCD allowance costs to comply with legislative requirements relating to subways and tunnels from:

- Section 3 of the Health and Safety at Work Act 1974;
- Regulation 13 of the Pipeline Safety Regulations 1996;
- the London County Council (Subways) Act 1893; and
- the City of London (Various Powers) Act 1900.

4.8 Costs submitted by Cadent must ensure that there has been a clear distinction between different engineering challenges compared to normal Tier 1 iron mains replacement projects. These costs must not already be included in any existing PCDs or baseline allowances.

4.9 We consider this scope to be appropriate to fund this project because it is separate to allowances accepted through existing mechanisms for Tier 1 repex work and will only be accepted with clear justification and costs analysis.

Re-opener Window

4.10 Cadent will have a single opportunity to trigger the re-opener between 24 and 30 April 2028 and have their costs considered as part of the RIIO-GD3 close out.

Questions

CADQ12. Do you agree with our proposed design of Cadent's London Subways and Tunnel Re-opener?

5. Cost of service

Introduction

5.1 This chapter sets out our proposals for ex ante totex allowances for Cadent in RIIO-GD3. This chapter should be read alongside other parts of our Draft Determinations that set out our overall approach to RIIO-GD3. In particular, Chapter 5 of the GD Annex, which provides more detail on our proposed cost assessment approach, and modelling methodology and process.

Ex ante allowances

5.2 Our proposed ex ante totex forecast comprise forecast controllable costs on a net basis[6] and is inclusive of our proposed ongoing efficiency (OE) challenge, unless otherwise stated. Figures presented in this chapter do not include real price effects (RPEs), to allow direct comparison with other GDNs'.

5.3 Table 16 sets out our proposed efficient allowances for Cadent's networks in RIIO-GD3.

Table 16: Cadent RIIO-GD3 submitted totex versus proposed allowed totex by network (£m, 2023/24 prices)

GDN	Submitted totex Dec 24	DD proposed totex	Difference DD vs. Dec 23 baseline request	Difference (%)
Cadent-EoE	2610.5	2092.2	-518.3	-20%
Cadent-Lon	2193.8	1676.6	-517.2	-24%
Cadent-NW	1853.4	1397.5	-456.0	-25%
Cadent-WM	1362.2	1116.2	-246.0	-18%
Cadent	8020.0	6282.5	-1737.5	-22%

Summary of assessment

5.4 Before modelling Cadent's proposed totex using regression analysis, we excluded costs associated with activities considered better suited to non-regression or technical assessment approaches. Table 17 below details our breakdown of submitted totex by assessment approach for Cadent's networks.

[6] Net costs are gross costs minus any 'contributions' the GDNs receive from third parties towards the work undertaken. Some activities may have chargeable elements, resulting in full or partial payment by third parties, with the remainder chargeable to customers through the RIIO price control framework.

Table 17: Company submitted totex by cost assessment approach (£m, 2023/24 prices)

Network Company	GDN	Submitted totex	Modelled Regression Costs	Modelled Non-regression Costs	Technically assessed costs
Cadent	EoE	2,610.5	2,232.1	240.7	137.8
Cadent	Lon	2,193.8	1,664.0	338.2	191.6
Cadent	NW	1,853.4	1,636.1	147.4	69.9
Cadent	WM	1,362.2	1,196.5	102.9	62.8
Cadent Total		8,020.0	6,728.7	829.2	462.0
% of total submitted totex		100%	84%	10%	6%

5.5 Table 18 below sets out the proposed modelling cost and efficient totex allowances for Cadent in RIIO-GD3. Modelled costs are subject to pre-modelling and benchmarking efficiency adjustments. Technically assessed costs are subject to technical assessment adjustments only. All costs are subject to the OE challenge.

Table 18: Proposed cost adjustments for RIIO-GD3 (£m, 2023/24 prices)

GDN	Modelled cost - pre-modelling adjustments	Modelled costs - benchmarking efficiency	Technically assessed adjustments	Ongoing efficiency adjustments	Total adjustments
Cadent-EoE	-247	-97	-49	-126	-518
Cadent-Lon	-191	-180	-48	-98	-517
Cadent-NW	-153	-189	-31	-83	-456
Cadent-WM	-101	-40	-35	-71	-246

GDN	Modelled cost - pre-modelling adjustments	Modelled costs - benchmarking efficiency	Technically assessed adjustments	Ongoing efficiency adjustments	Total adjustments
Cadent Total	-691	-506	-163	-378	-1738

Pre-modelling, normalisations and adjustments

5.6 To ensure that our cost benchmarking is carried out on a comparable basis between GDNs, submitted data may need to be adjusted to correct for inconsistencies and external factors. For example, adjustments may be made to exclude costs that are unsuitable for comparative assessment, or to remove costs associated with work that we propose to separately assess, or where we have not accepted the needs case for a proposed investment.

5.7 Table 19: below sets out the proposed pre-modelling adjustments for Cadent in RIIO-GD3.

Table 19: Proposed pre-modelling cost adjustments for RIIO-GD3 (£m, 2023/24 prices)

5.8 For a breakdown of our proposed regional and company specific factor adjustments, see Chapter 5 in the GD annex.

Network	Submitted	Regional and company specific factors	Cost and workload adjustments	Separately assessed adjustments	Costs after adjustments
Cadent-EoE	2,610.5	-28.2	-214.3	-155.6	2,212.4
Cadent-Lon	2,193.8	-223.5	-153.7	-175.7	1,640.9
Cadent-NW	1,853.4	-1.8	-162.2	-104.1	1,585.4
Cadent-WM	1,362.2	-3.7	-110.2	-79.9	1,168.4
Cadent Total	8,020.0	-257.2	-640.4	-515.3	6,607.0

5.9 We are proposing to make normalisation adjustments to RIIO-GD2 costs to account for the different levels of achieved and expected compliance with HSE fatigue legislation. See section 5 in GD annex for further detail. We are proposing to maintain the historical loss of meterwork adjustment for Cadent for RIIO-GD1, but not extend it into RIIO-GD2.

5.10 For Cadent, we propose to make £610.6m (net) of downward volume-related pre-modelling adjustments to costs based on the outcomes of our engineering assessment. We also propose to remove £29.8m based on the outcome of our assessment of IT & Telecoms.

5.11 We have made cost adjustments of £515.3m though our separately assessed non-regression approach. Further information can be found in the non-regression section below.

Regression

Pre-modelling engineering and technical review adjustments

Capex proposals

5.12 We propose to reduce costs by £52.6m reflecting workload adjustment recommendations through our engineering review of pipeline monitoring & protection, preheat on offtakes & PRS and pipeline isolation valves.

5.13 We propose to remove £80.2m of the requested £102.5m of cost for mains reinforcement below 7 bar into the New Large Load Connections Re-opener. This is because we have concerns over the justification for some of the proposed reinforcement workloads and costs, given uncertainty over need during RIIO-GD3. More information on the New Large Load Connections Re-opener can be found in the GD annex.

5.14 In line with our engineering review, we have removed costs of £226.7m submitted by Cadent for:

- Pipeline integrity;
- Filter on offtakes & PRS;
- Pressure reduction on offtakes and PRS; and
- Governor interventions.

5.15 More information on these proposals can be found in the engineering assessment section.

Repex proposals

5.16 We propose to reduce Cadent's workload volumes for its cost beneficial mains replacement and services not associated with mains replacement. In line with our engineering review that considered these plans to be only partially justified, we propose to reduce these costs by £290.3m.

5.17 We propose to not include any forecasts for iron stubs costs at Draft Determinations, see Chapter 5 of GD annex for further information.

IT&T proposals

5.18 We assessed Cadent's IT and Telecoms and systems operation costs (excluding cyber and data & digitalisation) as part of a separate review by our consultants AtkinsRéalis and Grant Thornton. See the GD Annex for details of our assessment approach.

5.19 Cadent submitted £128.3m of costs for IT & Telecoms projects, in 8 separate proposals. One proposal was removed as it did not meet the assessment criteria. Our consultants reviewed 99% of the overall funding request from Cadent. The expert review of each proposed investment recommended that 58% of the overall proposed costs should be allowed based on an assessment of the needs case, value for money, optioneering and the appropriateness of cost levels associated with the proposed work plans. In line with these proposals, we propose to reduce submitted costs by £29.8m.

Other proposals

5.20 Cadent proposed a £24.7m investment to support activities associated with the net zero transition. We propose to reject these costs as the proposal assigns certain strategic planning accountability to the GDN instead of NESO, which contradicts RESP policy. Further information on this proposal can be found in Chapter 2 under EAP: Net Zero Transition Planning.

5.21 We propose to reject Cadent's investment, INV-50 "Unified Asset Investment Portfolio Management", removing £12.5m of submitted costs. Further details can be found in Chapter 7.

Cost drivers

5.22 In this section we describe our proposed adjustments to the drivers that make up the totex Composite Scale Variable (CSV) used in our regression model. Adjustments were made to reflect engineering and cost assessment reviews of Cadent's Business Plan. Details on adjustments made are provided below for each major cost category: opex, repex and capex.

5.23 Table 20, Table 21, Table 22, and Table 23 below detail our proposed adjustments to the cost drivers for Cadent in RIIO-GD3.

Table 20: Proposed adjustments to the cost drivers for Cadent's EoE network in RIIO-GD3

CSV driver	Unit	Submitted	Modelled	Difference	Difference (%)
Repex	£m	1,021	947	-74	-7.3%
Reinforcement	£m	54	11	-43	-79%
Connections	£m	25	25	0.0	0.0%
Emergency CSV[7]	Number	6,548,571	6,548,571	0.0	0.0%
External condition reports	Number	72,824	72,824	0.0	0.0%
Maintenance MEAV	£m	20,271	20,271	0.0	0.0%
MEAV	£m	81,598	81,598	0.0	0.0%
Cadent – EoE Total[8]	Number	10,702	10,206	-497	-4.6%

Table 21: Proposed adjustments to the cost drivers for Cadent's Lon network in RIIO-GD3

CSV driver	Unit	Submitted	Modelled	Difference	Difference (%)
Repex	£m	721	678	-43.7	-6.1%
Reinforcement	£m	8.8	2.0	-6.8	-77%
Connections	£m	13	13	0.0	0.0%
Emergency CSV	Number	3,962,991	3,962,991	0.0	0.0%
External condition reports	Number	58,947	58,947	0.0	0.0%
Maintenance MEAV	£m	7,217	7,217	0.0	0.0%
MEAV	£m	44,364	44,364	0.0	0.0%
Cadent – Lon Total	Number	6,325	6,069	-256	-4.1%

[7] Emergency CSV is compiled of customer numbers and external condition reports which make up 80% and 20% respectively.
[8] The total is derived by multiplying the weighted drivers together.

Table 22: Proposed adjustments to the cost drivers for Cadent's NW network in RIIO-GD3

CSV driver	Unit	Submitted	Modelled	Difference	Difference (%)
Repex	£m	774	688	-86	-11%
Reinforcement	£m	17	4.3	-13.3	-76%
Connections	£m	9.8	9.8	0.0	0.0%
Emergency CSV	Number	4,707,331	4,707,331	0.0	0.0%
External condition reports	Number	71,285	71,285	0.0	0.0%
Maintenance MEAV	£m	9,608	9,608	0.0	0.0%
MEAV	£m	51,773	51,773	0.0	0.0%
Cadent – NW Total	Number	7,154	6,723	-431	-6.0%

Table 23: Proposed adjustments to the cost drivers for Cadent's WM network in RIIO-GD3

CSV driver	Unit	Submitted	Modelled	Difference	Difference (%)
Repex	£m	583	527	-56	-9.6%
Reinforcement	£m	13	3.0	-10	-77%
Connections	£m	10	10	0.0	0.0%
Emergency CSV	Number	3,281,941	3,281,941	0.0	0.0%
External condition reports	Number	40,820	40,820	0.0	0.0%
Maintenance MEAV	£m	8,892	8,892	0.0	0.0%
MEAV	£m	40,642	40,642	0.0	0.0%
Cadent – WM Total	Number	5,517	5,215	-302	-5.5%

5.24 We have not proposed any adjustments to Cadent's submitted MEAV, customer numbers and external condition reports.

5.25 We have proposed downward adjustments to Cadent's capex synthetic drivers, reflecting the outcome of our engineering assessment. We removed some workloads for reinforcements for all of Cadent's networks.

5.26 We have proposed downward adjustments to Cadent's repex synthetic driver, reflecting the outcome of our engineering assessment. For Cadent's East of England, North West and West Midlands networks, we removed workloads for Tier 2B, Tier 3, iron mains greater than 30 metres from buildings, steel mains greater than 2 inches in diameter, other policy and condition mains, and all associated services. For the London network we removed workloads for Tier 2B, iron mains greater than 30 metres from buildings, steel mains greater than 2 inches in diameter, other policy and condition mains, and all associated services.

Non-regression

5.27 This section presents an overview of proposed non-regression assessment for Cadent, including proposed adjustments to costs and workloads.

5.28 Tables 24-27 below present a summary of submitted and proposed modelled costs for each non-regression category for Cadent in RIIO-GD3. Where we present modelled costs in the tables below, these are pre-application of the benchmarking and OE adjustments. Our proposed reductions are a combination of cost reductions from removing workloads or costs deemed unjustified following engineering review and application of our proposed non-regression cost assessment approaches. See Appendix 1 for further details of the engineering review and Chapter 5 of the GD Annex for further description of our non-regression assessment approaches.

Table 24: Cadent – EoE proposed non-regression cost adjustments for RIIO-GD3 (£m, 2023/24)

Separately assessed activity	Submitted	Modelled	Difference	Difference (%)
Multiple Occupancy Buildings (MOBs)	42.53	15.86	-26.67	-63%
Diversions	76.86	0.00	-76.86	-100%
Streetworks	116.55	107.16	-9.40	-8%
Smart metering	2.09	2.27	0.18	9%
Land remediation	2.66	2.66	0.00	0%
SIU	0.00	0.00	0.00	0%

Growth Governors	0.00	0.00	0.00	0%
Cadent – EoE Total	240.69	127.95	-112.75	-47%

Table 25: Cadent – Lon proposed non-regression cost adjustments for RIIO-GD3 (£m, 2023/24)

Separately assessed activity	**Submitted**	**Modelled**	**Difference**	**Difference (%)**
Multiple Occupancy Buildings (MOBs)	93.34	48.49	-44.85	-48%
Diversions	81.68	0.00	-81.68	-100%
Streetworks	161.83	145.62	-16.20	-10%
Smart metering	0.95	1.03	0.08	9%
Land remediation	0.41	0.41	0.00	0%
SIU	0.00	0.00	0.00	0%
Growth Governors	0.00	0.00	0.00	0%
Cadent –Lon Total	338.21	195.56	-142.65	-42%

Table 26: Cadent – NW proposed non-regression cost adjustments for RIIO-GD3 (£m, 2023/24)

Separately assessed activity	**Submitted**	**Modelled**	**Difference**	**Difference (%)**
Multiple Occupancy Buildings (MOBs)	25.15	7.94	-17.21	-68%
Diversions	52.05	0.00	-52.05	-100%
Streetworks	67.37	60.10	-7.27	-11%
Smart metering	1.43	1.55	0.12	9%
Land remediation	1.40	1.40	0.00	0%
SIU	0.00	0.00	0.00	0%
Growth Governors	0.00	0.00	0.00	0%
Cadent –NW Total	147.40	70.99	-76.41	-52%

Table 27: Cadent – WM proposed non-regression cost adjustments for RIIO-GD3 (£m, 2023/24)

Separately assessed activity	Submitted	Modelled	Difference	Difference (%)
Multiple Occupancy Buildings (MOBs)	23.88	7.55	-16.34	-68%
Diversions	28.05	0.00	-28.05	-100%
Streetworks	48.75	48.67	-0.09	0%
Smart metering	1.23	1.33	0.11	9%
Land remediation	1.02	1.02	0.00	0%
SIU	0.00	0.00	0.00	0%
Growth Governors	0.00	0.00	0.00	0%
Cadent –WM Total	102.93	58.57	-44.36	-43%

Technically Assessed Costs

5.29 #This section contains an overview of our approach to technical assessment for Cadent, including our proposed adjustments to submitted. For each category, we present a summary of submitted and our proposed costs (excluding ongoing efficiency).

5.30 Table 28, Table 29, Table 30, and Table 31 below sets out the proposed adjustments we have made through technical assessment for RIIO-GD3.

Table 28: Cadent – EoE summary of technically assessed costs for RIIO-GD3 (£m, 2023/24 prices)

Cadent –EoE	Submitted allowance	Proposed allowance (excluding ongoing efficiency)	Difference (%)
Technically assessed capex and repex projects	40.1	28.8	-28%
ALD	18.6	13.5	-27%
DPLA	1.5	1.5	0%
Cyber	[Redacted]	[Redacted]	[Redacted]

Cadent –EoE	**Submitted allowance**	**Proposed allowance (excluding ongoing efficiency)**	**Difference (%)**
PSUP	[Redacted]	[Redacted]	[Redacted]
Iron Stubs	9.7	0.0	-100%

Table 29: Cadent – Lon summary of technically assessed costs for RIIO-GD3 (£m, 2023/24 prices)

Cadent –Lon	**Submitted allowance**	**Proposed allowance (excluding ongoing efficiency)**	**Difference (%)**
Technically assessed capex and repex projects	113.3	113.3	0%
ALD	7.7	2.6	-66%
DPLA	0.7	0.7	0%
Cyber	[Redacted]	[Redacted]	[Redacted]
PSUP	[Redacted]	[Redacted]	[Redacted]
Iron Stubs	15.1	0.0	-100%

Table 30: Cadent – NW summary of technically assessed costs for RIIO-GD3 (£m, 2023/24 prices)

Cadent –NW	**Submitted allowance**	**Proposed allowance (excluding ongoing efficiency)**	**Difference (%)**
Technically assessed capex and repex projects	0	0	n/a
ALD	12.3	7.2	-42%
DPLA	1.5	1.5	0%
Cyber	[Redacted]	[Redacted]	[Redacted]
PSUP	[Redacted]	[Redacted]	[Redacted]
Iron Stubs	13.1	0.0	-100%

Table 31: Cadent – WM summary of technically assessed costs for RIIO-GD3 (£m, 2023/24 prices)

Cadent –WM	**Submitted allowance**	**Proposed allowance (excluding ongoing efficiency)**	**Difference (%)**
Technically assessed capex and repex projects	0	0	n/a
ALD	9.3	4.3	-54%
DPLA	1.5	1.5	0%
Cyber	[Redacted]	[Redacted]	[Redacted]
PSUP	[Redacted]	[Redacted]	[Redacted]
Iron Stubs	14.9	0.0	-100%

Technically assessed and bespoke proposals

5.31 We are proposing to fund two bespoke repex projects in RIIO-GD3, London medium pressure and Grays medium pressure (both London network), in line with the costs requested by Cadent. See Chapter 2 for further details on the London Medium Pressure PCD and the Grays Medium Pressure PCD.

PSUP proposals

5.32 We have shared our approach to PSUP assessment directly with the network companies, due to the sensitive nature of this area.

Cyber proposals

5.33 A detailed breakdown of our consultation position is in confidential annexes that have been shared directly with the network companies for private consultation.

Other proposals

5.34 We propose to allow Cadent a baseline allowance of £5.14m for Digital Platform for Leakage Analytics (DPLA) in RIIO-GD3, in line with what it requested. Cadent has led the DPLA SIF project and we consider it has sufficient clarity on cost and timelines for implementation of DPLA to justify baseline funding in RIIO-GD3.

5.35 We propose to accept Cadent's costs of £27.5m for the rollout of advanced leakage detection (ALD) technology across its network.

Proposed cost exclusions from totex

5.36 In this section we provide further details of the cost activities that Cadent proposed for technical assessment or as bespoke outputs (ie cost to be excluded

from totex) in its Business Plan, but which we have chosen not to exclude from totex at DDs.

5.37 In our SSMD we stated that we will continue to set a high threshold for costs that meet specific criteria that justify evaluation outside totex benchmarking. These include materiality, where the costs are significant enough to merit individual scrutiny, and comparability, where unique or bespoke circumstances make cross-company comparisons impractical. Network companies must also provide robust justification for separate treatment, demonstrating that the proposal is both deliverable and efficient. Crucially, the project must offer clear consumer benefits, such as enhanced service, reduced risk, or long-term savings.

5.38 In its plan, Cadent made the following proposals for cost exclusion:

- Flow Weighted Average Calorific Value Compliance Metering Systems;
- Capacity upgrades > 7bar;
- Net Zero Activities within baseline totex;
- Vulnerability activities within baseline totex;
- Physical Security (PSUP) – Opex;
- Robotic Intervention – Repex;
- LTS Diversions;
- Modernisation of Field Service Management;
- Energy Control Centre Applications Rationalisation – Opex and Capex; and
- Network Infrastructure for Supervisory Control and Data Acquisition (SCADA) Operational Technology – Opex and Capex.

5.39 We have evaluated each of these claims for exclusion from comparative regression benchmarking and propose not to exclude them as they do not meet the criteria set out in our SSMD for separate assessment.

Engineering assessment of Cadent's Business Plan

EJP review overview

5.40 Our review of the Engineering Justification Papers (EJPs) is a critical step in determining whether the needs case for proposed workloads has been justified.

Referencing

5.41 For EJP descriptions please refer to the Draft Determinations Overview Document.

5.42 For Cadent EJP recommendations please see Appendix 1.

EJP quality and data provision

5.43 Overall, our technical analysis found that Cadent EJP submissions provided suitable narrative to justify the needs case for investment in general but lacked sufficient data to support its proposed intervention volumes. This was reflected in lower ratings for our assessments of scope and optioneering confidence.

5.44 Where we considered there to be insufficient data to justify the needs case for investments, we requested further data to better understand the planned interventions and changes to asset health scores throughout the price control period. This is of particular importance when an unconstrained NARM approach is being utilised.

5.45 Cadent demonstrated high-quality data reporting in areas such as PE riser interventions, FWACV[9] compliance, and EI&T[10] on offtakes and PRS.[11] This indicates its capability to provide similar data for other asset groups.

Consultation Response Expectations

5.46 To ensure that the needs cases for proposed RIIO-GD3 investments are justified, and therefore offer consumers value for money, we have detailed our expectations for further data or more information for Cadent's consultation response in Table 2, Appendix 1.

Assessment

5.47 We reviewed 25 Cadent Engineering Justification Papers (EJP), totalling approximately £4.40Bn planned for the RIIO-3 period. Following our technical review, we found that 10 EJPs were fully justified and recommended for approval without any adjustment to volumes.

5.48 A further 8 EJPs were partially justified where either the needs case, optioneering and/or scope did not provide sufficient justification for the full request. We requested additional data for preheat on offtakes and PRS and pipeline monitoring and protection which was not provided; therefore, it was challenging to complete a detailed engineering analysis. The data provided for Multiple Occupancy Buildings (MOBs) risers was at times unclear, and discrepancies were present for polyethylene (PE) riser interventions data. There was limited evidence provided to support volumes for mains reinforcement below 7 bar, cost beneficial mains replacement, services not associated with mains replacement and pipeline isolation valves.

[9] Flow weighted average calorific value.
[10] Electrical, Instrumentation and Telemetry on offtakes and pressure reduction station.
[11] Pressure reduction station.

5.49 We consider 7 EJPs are currently unjustified. These include pipeline integrity; filters on offtakes and PRS; pressure reduction on offtakes and PRS, governor interventions; West Winch EoE; mains diversions (chargeable & non-chargeable) and mandated category 3 security. We determined that there was too much uncertainty, and more robust data would be required to support these proposals. This will enable us to better understand the scope of works to be completed during RIIO-3.

Questions

CADQ13. Do you agree with our approach to cost exclusions and technical assessment for Cadent?
CADQ14. Do you agree with our engineering assessment of Cadent's RIIO-3 Business Plan?

6. Innovation

Background

6.1 The SSMD, Business Plan Guidance (BPG) and Overview Document identify the criteria and process that we have used to assess NIA funding requests. The Overview Document also details our proposals for NIA oversight, the SIF, increasing third party involvement and innovation deployment.

6.2 We set out below our Draft Determinations position on Cadent's RIIO-3 NIA funding.

Consultation position and rationale

Summary of consultation position

Level of Network Innovation Allowance (NIA) funding: In its business plan, Cadent requested £21.45m in NIA funding. Following our assessment, we propose to award £18m.

6.3 Innovation Strategy: Cadent clearly lays out how it plans to use its NIA funding in RIIO-3 to support its work, and the problems it is looking to solve. Its areas of focus are around benefiting consumers in vulnerable situations, supporting the energy transition and increasing its network's climate resilience.

6.4 NIA Workstreams: Cadent requested £0.75m for Discovery type projects, as we indicated in our SSMD that the Discovery phase of SIF would be removed. As set out in Chapter 10 of the Overview Document, we propose to retain the Discovery phase, so we have reduced Cadent's NIA amount by £0.75m to reflect this.

6.5 Business Plan Assessment: After assessing Cadent's Business Plan against the criteria set out in the BPG (paragraph 3.13), it was scored against each of these based on whether it had provided sufficient evidence to justify the amount of NIA it was requesting. Based on Cadent's score, we decided to reduce its NIA award by a further 13%. We would have expected additional detail to be given in the following areas:

- Key areas of focus for NIA spending: while Cadent explained its priority areas and the problems it is trying to solve at a high level, we expected a more detailed breakdown of the projects and solutions it is looking at exploring.
- Network collaboration to identify and deliver NIA projects: We expected more detail to be given on how Cadent will collaborate with other network

companies to identify and deliver projects, including details of the processes it has in place and how they work in practice.

- Ensuring projects are not duplicative: we expected more detail to be given on how Cadent will ensure its work is not duplicative of previously funded innovation projects, the processes it has in place to accomplish this and how they work in practice.
- An explanation of why the innovation in question cannot be funded from the totex allowance: while Cadent explained at a portfolio level why NIA is needed and NIA related projects cannot be funded by totex funding, it does not explain this at a workstream level as requested in the BPG.

Questions

CADQ15.	Do you agree with the level of proposed NIA funding for Cadent?

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 proposals for further digitalisation of the sector through the existing Digitalisation licence condition, a proposed Data Sharing Infrastructure (DSI) licence condition, and a Digitalisation Re-opener.

7.2 We have set out below our Draft Determinations position on Cadent's RIIO-3 data and digitalisation funding.

Consultation position and rationale

Summary of consultation position

Level of data and digitalisation funding: In its business plan, Cadent requested £30.9m in data and digitalisation funding. Following our assessment, we propose to award £18.4m. There were no investments which were deemed to have been miscategorised as data and digitalisation.

7.3 Cadent's RIIO-3 digitalisation strategy is focused on maturing internal digital capability and improving the accessibility and governance of its data. These efforts are being driven by the increasing importance of data in supporting operational performance, customer service, and whole-system planning. Through its Digitalisation Strategy and Action Plan, Cadent has outlined a structured programme of work across data architecture, internal skills, and product development. We consider this strategy to be well targeted.

7.4 Cadent sets out three digital priorities; 'Digital Foundations', 'Digital Culture', and 'Data as a Strategic Asset' and explains how these underpin operational resilience and better consumer outcomes. We are particularly supportive of Cadent's focus on internal data governance, product cataloguing, and early adoption of digital twin technologies, all of which support improved data accessibility and quality over time. These priorities are underpinned by a portfolio of targeted investments, including the development of a unified data architecture, modernisation of regulatory reporting, and deployment of a leakage analytics platform. These initiatives are designed to improve data quality, enable predictive insights, and support more efficient asset management; all of which are consistent with the expectations set out in our SSMD.

7.5 Cadent's proposals demonstrate alignment with our Data Best Practice Guidance, particularly in relation to assigning data roles (Principle 2), improving discoverability (Principle 3), and ensuring data quality (Principle 4). While not all principles are yet embedded at scale, we are encouraged by the strategic direction and transparency around implementation. Cadent has also committed to advancing interoperability and sector alignment, noting its intention to design systems that will be compatible with wider sector standards and national infrastructure. Investment in metadata standards, data catalogues, and a Common Information Model for gas further supports readiness for the Data Sharing Infrastructure (DSI), which we consider foundational for future sector-wide coordination.

7.6 Cadent's rejected investment, INV-50 'Unified Asset Investment Portfolio Management' totalled £12.5m, or 40% of its proposed investments. Despite proposing to approve the majority of INV-50, we have concerns that the 'data inputs' and 'Future Energy Specialist' use case elements of the proposal duplicate the work of the Regional Energy System Planners (RESPs). We consider the Climate Resilience Specialist and Network Asset Investment Specialist use cases may be less duplicative; however, we need further clarity on how Cadent currently manages these functions and what additional value the geospatial tool provides. Therefore, in order to approve this investment for our Final Determinations, we will seek further clarity from Cadent as to what the Future Energy Specialist will do and a more technical understanding of the data inputs and outputs, to ensure that these are all supportive of the RESP, rather than duplicative. If our position remains that certain elements are duplicative, we may decide that the proposal should be amended and the investment reduced, so that the rest of the investment may be approved.

7.7 We are therefore minded to adopt a supportive position on Cadent's digitalisation programme. The proposals are consistent with Licence Condition 9.5 and demonstrate a clear, structured approach to embedding data excellence across the business.

Questions

CADQ16. Do you agree with our proposed level of funding for Cadent's data and digitalisation investments?

8. Your response, data and confidentiality

All proposals published as part of these documents are draft proposals, subject to consultation. We will publish our decisions on the RIIO-3 price controls in our Final Determinations later this year. We will implement our Final Determinations by modifications to the companies' licence conditions, after further consultation on licence drafting.

Consultation stages

8.1 Table 32 below sets out the key stages for this consultation and how we will progress from Draft Determinations to Final Determinations

Table 32: Consultation stages

Stage	Date
Consultation Open	01/07/2025
Consultation closes (awaiting decision). Deadline for responses	26/08/2025
Final Determinations (including publication of consultation responses)	Winter 2025

How to respond

8.2 We want to hear from anyone interested in this consultation. Please send your response to RIIO3@ofgem.gov.uk.

8.3 We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

8.4 We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, your data and confidentiality

8.5 You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

8.6 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with

you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

8.7 If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 2.

8.8 If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

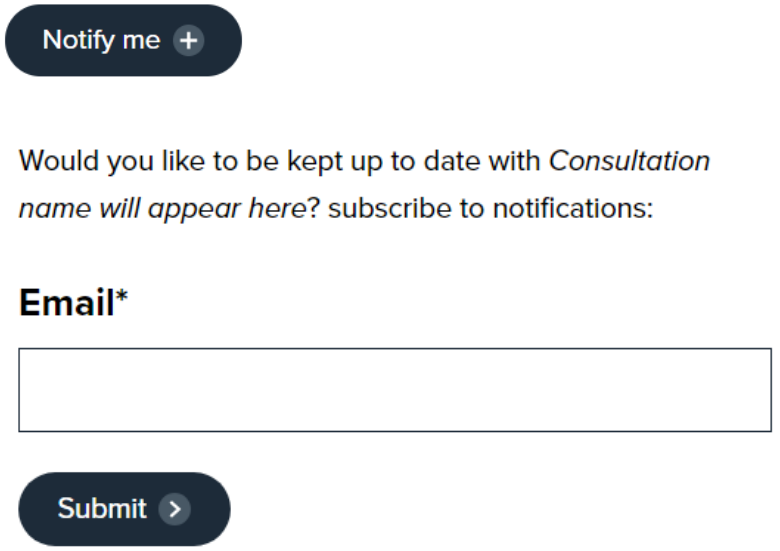
8.9 We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. Choose the notify me button and enter your email address into the pop-up window and submit. ofgem.gov.uk/consultations



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

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

Appendix 1 – Summary of Engineering Review

Table 33: Summary of Cadent Approved EJPs

OSR	**Title**
EJP01	Civil Interventions
EJP06	Housing Interventions
EJP16	Pressure Monitoring & Control on Governors
EJP02	EI&T on offtakes & PRS
EJP08	Mains Tier 1 (IMRRP) and Associated Services
MJP05	Tinsley Viaduct Diversion
MJP03	FWACV Compliance (MSU)
MJP07	Grays MP NL
MJP04	London MP
MJP01	Capacity Upgrades

Table 34: Summary of Cadent Engineering Recommendations

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
Pipeline Integrity EJP12	Justified	Justified	Medium Confidence	Proposed Outcome: Unjustified. We consider there is too much cost uncertainty due to a lack of workload details. While the need for ongoing pipeline maintenance is explained in general, there is a lack of detail on the methodology for establishing workload volumes, resulting in uncertainty on the amount of maintenance required. As there are no defined deliverables, this submission is unjustified until further information is provided to support the proposed volume of maintenance activity in RIIO-GD3 for each intervention type to ensure the cost is reflective of the workloads completed.
Pipeline Monitoring & Protection EJP14	Justified	Justified	Medium Confidence	Proposed outcome: Partially Justified. We propose cost reductions. Cadent have stated that the workstack for sleeves differs between RIIO-3 and RIIO-2, proposing to use significantly more nitrogen sleeves in RIIO-3. This is proposed without substantive supporting evidence or justification for the increase in submitted unit costs. We have recommended overall workload is funded assuming all work is

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				construction sleeves, applying construction sleeve unit costs for RIIO-3. Further evidence is required to support the need for nitrogen sleeves, specific volumes and justification for proposed unit costs.
Filters on Offtakes & PRS EJP03	Partially Justified	Partially Justified	Low Confidence	Proposed Outcome: Unjustified Cadent did not provide the requested global repository asset health data, therefore we were unable to undertake a detailed engineering analysis of the investments proposed in the EJP, to determine if optioneering, scope and costs are justified. Multiple options were proposed, 3 of which would remove all 4-5 health scoring assets. The chosen option had the highest capex, but there was insufficient justification as to why this option is the optimal solution. To allow for a complete assessment of the investment to be undertaken, we would expect to see the following global asset data as a minimum: installation date, NARM score, health condition score beginning of price control, health condition score at the end of price control, intervention mode, date of inspection, size of filter, historical investment, NDT inspection to justify the

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				investment case and accompanying narrative to support proposed optioneering.
Pressure Reduction on Offtakes and PRS EJP17	Partially Justified	Partially Justified	Medium Confidence	Proposed Outcome: Unjustified as the costs and data that were provided are less than any alternative option available in the EJP. Cadent propose to invest in the highest risk pressure reduction systems based on condition. Cadent did not provide additional data when requested. The data provided is for risk score only and confirmation of investment. Asset health data and intervention proposed was not provided. This meant we could not complete a detailed engineering analysis. 11 sites have data which did not reconcile with other cost details provided in the EJP which created further uncertainty. The investment is considered unjustified, with further data required to support justification of the investment needs case.
Preheat on Offtakes & PRS EJP15	Partially Justified	Partially Justified	Low Confidence	Proposed Outcome: Partially justified. We have proposed alternative optioneering to minimise investment to maintain stable risk score.

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				The additional data requested was not provided so unable, with any certainty, to corroborate intervention volumes or type. To allow for a complete assessment of the investment to be undertaken, we would expect to see asset data such as: heater type, intervention mode, historical investment mode, asset health score at beginning of price control, asset health score at the end of price control, NARM score. This is required to demonstrate investment need and create scope confidence.
Governor Interventions EJP04	Not Justified	Not Justified	Low Confidence	Proposed outcome: Unjustified. The EJP narrative justifies the need for investment through NARM. Limited supporting information was provided on the specific assets to be intervened on or their health condition. No unit costs were provided for the proposed work. The paper did not allow easy comparison with RIIO-2 volumes. To allow for a complete assessment of the investment to be undertaken, we would expect to see more detailed data including governor type, location and associated health score.

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
MOBs Risers EJP10	Partially Justified	Justified	Medium Confidence	Outcome proposed: Partially justified. We have proposed reduced workloads based on alternative optioneering for reactive work only. The data provided to support justification of the needs case should clearly detail which assets require intervention, the intervention type, an asset health condition score for each asset alongside the risk score. We also need to understand what risk threshold has been applied in establishing intervention need and the associated justification. We do not think the data currently provided meets these requirements. Additional data is required to support the proposed scope and overall needs case for their preferred option.
Pipeline Isolation Valves EJP13	Partially Justified	Not Justified	Low Confidence	Outcome proposed: Partially justified. We have proposed reduced volumes. Volumes for all valve types (HP, IP, MP, I&C) have been provided. For IP and MP, data has been provided to support the proposed volumes. This data includes failure rates based on maintenance inspection, intervention type and unit cost. For I&C valves, data to support the

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				proposed volumes is inadequate. The rate of failure is based on historical rates and costs are based on full replacement only. For HP valves, no data has been provided to support the proposed volumes. Rate of failure and costs are copied from RIIO2. Complete data for HP and I&C will be required to support proposed volumes and optioneering confidence.
PE Riser Interventions EJP11	Partially Justified	Justified	High Confidence	Outcome proposed: Partially justified with reduced volumes. We do not consider there to be anything in current building regulations that requires retrospective action to replace PE risers in use on buildings above 18 metres in height (ie high-rise buildings, HBRs). Therefore, we propose to remove 93 HRBs. We would expect the need for intervention to be justified on risk and asset health score. 63 medium-rise buildings (MRBs) have no supporting fault data, although risk scores are reported as being >10000. This suggests potentially erroneous data inputs. Therefore, we have reduced MRBs volumes by 63. It would be helpful to see full PE riser repository data, rather than data just

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				for proposed interventions, to provide context for the required workloads across this asset class in RIIO-GD3.
Cost Beneficial Mains Replacement EJP09	Partially Justified	Not Justified	Low Confidence	Proposed Outcome: Partially Justified. We propose to reduce volumes to align with Cadent's RIIO-2 strategy. Cadent intends to use DPLA to prioritise workload to target repex investments which is not included in the mandatory IMRRP programme due to leakage. We understand the intent of DPLA is not to increase intervention volumes but to strategically target "leakiest" pipelines. Volumes proposed in RIIO-3 have increased 44% from RIIO-2 and Cadent's SQ response does not fully justify why this is required and how the workforce will be obtained to deliver additional volumes. Cadent have not provided sufficient evidence to support successful delivery of additional volumes and more options could have been explored to justify need for intervention volumes. Continuing with the strategy utilised in RIIO-2, which limits the workload volume in each region, allows Cadent to continue cost beneficial repex work alongside utilising the benefits of DPLA.

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
Services not associated with mains replacement EJP05	Partially Justified	Partially Justified	Medium Confidence	Proposed Outcome: Partially Justified. We propose to reduce volumes. Bulk Steel Service Relays - Cadent state volumes will be based on RIIO-2 run rates plus additional volumes due to steel tails. No analysis or data on deterioration or fault rates has been provided to justify the proposed increase in steel tail volumes. Therefore, we consider the additional volumes of bulk steel service relays proposed above RIIO-2 levels to be unjustified. We have accepted the needs case for workloads in line with RIIO-2 average volumes. Service Alterations - this is customer triggered reactive work based on historic volumes. No evidence has been provided to support increase in volumes relative to RIIO-GD2 or their delivery. Other services volumes are reactive interventions and the volumes pertaining to each category in the scope of this work is not known. There is a volume reduction from RIIO-2 but a significant cost increase, which has not been explained.

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
Mains Reinforcements below 7 bar EJP18	Partially Justified	Partially Justified	Medium Confidence	Proposed Outcome: Partially justified. We propose to reduce volumes. Costs and volumes are uncertain as the workload is reactive, often driven by third parties. The workload is split into three categories: general reinforcement, specific I&C reinforcements and IMRRP insertion enabling reinforcements. We consider insertion enablement to be well justified, and we agree with the proposed volumes. The needs case and scope for general reinforcement is considered poorly justified and we have concerns over scope confidence for specific I&C reinforcements. We consider both general reinforcements and specific I&C volumes to not be justified. We would expect more data to be provided to support the justification of the proposed volumes, dimensions and cost. Where sufficiently detailed data cannot be provided due to the uncertainty or need, a re-opener may be an option for funding additional volumes in-period.
Mains Diversions (chargeable & non-chargeable)	Partially Justified	Not Justified	Medium Confidence	Proposed outcome: Unjustified. We propose alternative optioneering or re-opener funding may be more appropriate.

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
EJP07				There is significant uncertainty around volumes required to be delivered in RIIO-GD3. We do not consider the proposed optioneering to support the proposed workloads. We think there was a lack of alternative approaches considered. We would like to see more robust optioneering ahead of Final Determinations to support the justification for baseline funding. An uncertainty mechanism may be more appropriate, given volume uncertainty.
Mandated Category 3 Security MJP02	Justified	Justified	Low Confidence	Proposed Outcome: Unjustified. We agree with the overall needs case. However, the quality of the information on scope and cost confidence for the projects is poor. A full cost breakdown and project scope has not been provided. Further SQs were sent and Cadent were unable to provide the data requested. We require further information on scope, sites and costs before the proposed costs for this investment can be considered justified.
West Winch EoE MJP06	Not Justified	Partially Justified	High Confidence	Proposed Outcome: Unjustified. This project is to carry out a feasibility and design study, as part of a plan to replace the pipeline in RIIO-4. The

EJP Title	Needs Case	Optioneering	Scope Confidence	Comments
				optioneering described in the paper relates to the construction phase of the work and does not focus on the alternatives to doing the feasibility study so it is not relevant. We are not satisfied that the information provided details the expected outputs of feasibility study, and there is no breakdown of expected costs. Therefore, we consider this EJP to be unjustified. We require detail on the deliverables and anticipated costs of the feasibility and design study.

Appendix 2 – Privacy notice on consultations

Personal data

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

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

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

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

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

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

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

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

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

We will not share your personal data with any other person or organisation.

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

Your personal data will be held for 12 months after the project is closed.

6. **Your rights**

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

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services

- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas

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

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

10. More information For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".