DD Supporting Evidence: EJP05

Services Not Associated with Mains Replacement

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1 Introduction

This annex provides additional supporting evidence requested by Ofgem in Table 34 of the July 2025 Draft Determination, addressing concerns regarding forecast workload derivation and unit costs in our Services Not Associated with Mains Replacement investment case (EJP05). This annex should be read in conjunction with EJP05.

For clarity, the feedback provided by Ofgem in Cadent's Draft Determination feedback for EJP05 in Table 1.

Feedback Source	Needs Case	Optioneering	Scope Confidence	Comments
RIIO-3 Draft Determinations – Cadent **Table 34: Summary of Cadent Engineering Recommendations**	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-2 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.
22nd July Ofgem Engineering – Cadent Bilateral	• Misalignment of workload volumes presented and acknowledged • Misrepresentation of BSSR volumes due to misalignment was acknowledged, with volumes set to decrease into RIIO-3 • Cadent to provide corrected workload as part of DD submission • Cadent to provide narrative on service alteration volume increases			

Table 1: Specific EJP05 feedback from the RIIO-3 Draft Determinations Cadent Annex

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The investment in EJP05 is driven by mandatory regulatory compliance to ensure network safety and reliability, notably against the Pipeline Safety Regulations, the Pressure Safety Systems Regulation, the Gas Safety (Management) Regulations, and the Health and Safety at Work Act. This investment is therefore non-negotiable, ensuring public safety, security of supply to both domestic and non-domestic customers, and the mitigation of risks associated with ageing and deteriorating service pipes.

Our preferred investment option reflects the forecasted level of intervention required to maintain compliance and asset health and aligns with our Network Asset Management Strategy (Appendix 10). It proposes 111,163 interventions over RIIO-3 at a forecast cost of [redacted]

In our original EJP05 submission the allocation of cost and volumes across the different work types was incorrectly represented relative to the BPDT for both RIIO-2 and RIIO-3. A summary of the corrected position is shown in Table 2 and is consistent with the data presented at the Ofgem Bilateral in July 2025. The misalignment led to an inflated BSSR volumes in EJP05. This has been corrected and shows this workstack reduces in line with other workstacks.

Workload	RIIO-2 Volume	Volume Difference to EJP	RIIO-2 Expenditure (£m)	RIIO-3 Forecast Volume	RIIO-3 Forecast Expenditure (£m)	Volume Change RIIO-2 to RIIO-3
Bulk steel service relays	16338	+5489	[redacted]	14309	[redacted]	-2029
Service relay after gas escape	47770	-1072	[redacted]	44743	[redacted]	-3027
Service alterations	7891	-3094	[redacted]	14699	[redacted]	6808
Other service relay	40607	-2859	[redacted]	37412	[redacted]	-3195
Total	**112606**	**-1536**	[redacted]	**111163**	[redacted]	**-1443**

Table 2: Comparison of RIIO-2 and RIIO-3 forecasted volume and cost by workload type

This annex demonstrates that our Services Not Associated with Mains Replacement programme is justified, deliverable, and cost-reflective, addressing Ofgem's concerns and supporting a safe, resilient, and compliant gas network.

2 Purpose of Document

This response provides essential clarifications and detailed justifications for key aspects of our RIIO-3 Business Plan. Its primary purpose is to:

- Clarify an identified error in the alignment of service work types within the Engineering Justification Paper (EJP) compared to the Business Plan Data Template (BPDT), ensuring consistency in reporting.
- Provide explanation for the overall service volume trends, which is directly driven by the ongoing success and anticipated outcomes of the Iron Mains Risk Reduction Programme (IMRRP).
- Provide explanation for a forecasted increase in service alteration volumes, reflecting a revised and increased forecast of Built Over Services alterations.

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3 Preferred RIIO-3 Workload and Cost

3.1 Forecast Workload Volume and Cost

Revised cost and volume tables are listed below and correct a misalignment between the Business Plan Data Template (BPDT) and EJP05 regarding the RIIO-3 work allocation. It is important to note that there is no change to the overall proposed costs nor volume from our original submission; rather, all adjustments apply exclusively to the allocation of cost and volumes across different work types.

Forecast Cost (£m)						
Workload	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**Total**
Bulk Steel Service Relays	[redacted]					
Service Relay after gas escape						
Service alterations						
Other Service relay						
Total						

Table 3: Forecast Total Service Expenditure in RIIO-3 (£m)

Forecast Volume (no.)					
Network	**Bulk Steel Service Relays**	**Service Relay after gas escape**	**Service alterations**	**Other Service relay**	**Total**
EE	1792	10542	5797	12180	30311
NL	6889	11079	907	5751	24626
NW	3973	17075	2250	11695	34993
WM	1655	6047	5745	7786	21233
Cadent	**14309**	**44743**	**14699**	**37412**	**111163**

Table 4: Forecast Services Work Volume by Network in RIIO-3

Network	Forecast Cost (£m)				
	Bulk Steel Service Relays	Service Relay after gas escape	Service alterations	Other Service relay	Total
Eastern	[redacted]				
NL					
NW					
WM					
Cadent					

Table 5: Forecast Service Expenditure by Network in RIIO-3 (£m)

We are forecasting a 1% net reduction in service relay volumes between RIIO-2 and RIIO-3. Service alteration volumes are anticipated to increase and justification for this increase is included in section 3.3. For the remaining service relay work types, the decrease is on average 9% between the two regulatory periods, which is driven by our IMRRP programme, as described in section 3.2.

We have applied a common standard unit rate to all workloads, rather than specific unit rates per workload. As described in EJP05 section 8.5, unit costs were derived from historical trend analysis and extrapolation, utilising actual RIIO-2 unit cost data, with average unit costs from the past three years (2021/22 to 2023/24). The impact of using this rate over a targeted unit rate per workload is that there are variations in cost between different workstacks in RIIO-2 and RIIO-3. However, this averages out across the entire volume of forecasted work.

3.2 Impact of IMRRP

The anticipated decline in volume for bulk steel service relays, relays after escape, and other service relays is primarily driven by the continued reduction in the iron pipe population as a result of the Iron Mains Risk Reduction Programme (IMRRP). The decrease iron service population is reconciled into our forecasting accordingly.

3.3 Service Alterations

Service alteration volumes are anticipated to increase by 46% between RIIO-2 and RIIO-3. The increase directly reflects changes to our approach for Built Over Assets (BOAs) in RIIO-2.

In RIIO-2 we have continued to focus on BOAs, which continue to present customer risk. This was triggered by continuous improvement of our processes, supported by ongoing HSE engagement through the Gas Transporters Operational Safety Group[1]. Subsequently we have evolved our approach to identifying and managing Built Over Assets, including services.

Most BOAs are identified during operational duties or general review of construction records. As show in Figure 1: Trend in built over services identified from 2019 to 2024, we have seen year on year increases of built over services being identified. Once we have identified a built over service, we undertake a site survey to both confirm its built over status and the extent of the build over.

[1] Specific HSE challenges were raised in the April 2021 Gas Transporters Operational Safety Group on management of mains in private

We then assess the age of built over and with a view to recover the costs where possible. To improve cost recovery, we are proactively implementing a systematic geospatial analysis tool which identifies built over digitised asset.

In addition to minimising customer risk exposure, identification of any built over assets proactively will significantly improve our ability to engage with the customer with a view to recover the cost of moving our assets.

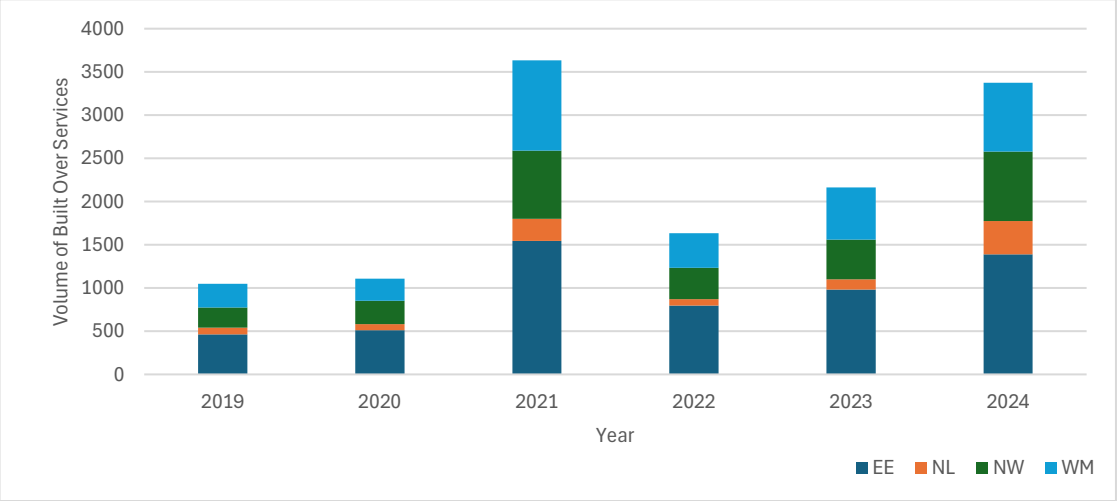

Figure 1: Trend in built over services identified from 2019 to 2024[2]

We have simultaneously reviewed and revised the engineering controls around our monitoring and remediation responses to all BOAs. This is with a view of reducing the time between identification and full remediation to minimise customer risk exposure. We have established a specialist function to manage BOAs and evolved our management processes. We have seen a subsequent step change in remediation volumes resulting from the increase in validated built over assets (Figure 2). Our forecasting tools have reflected the increase of volume of these interventions in RIIO-3 using the observed trends.

[2] The 2020 and 2021 volumes were affected by Covid-19 outbreak, where for safety reasons we were unable to undertake full site surveys of customer properties.

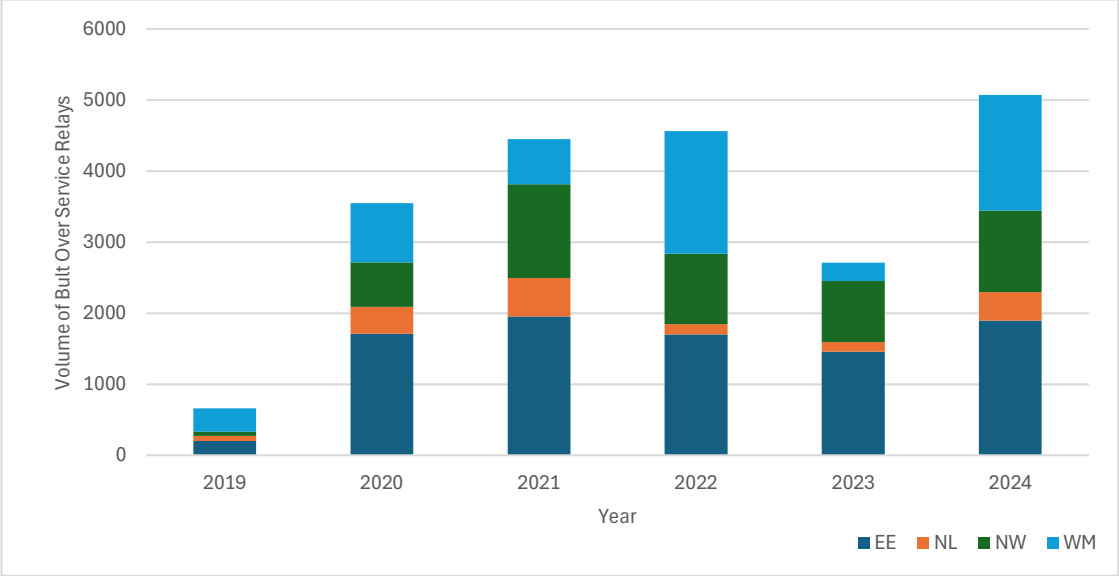

Figure 2: Trend in built over non-chargeable services remediated from 2019 to 2024