

Annex to EJD WWU.20 – Non-Mandatory Distribution Mains Replacement Programme

1.0 Introduction

This annex document provides additional supplementary information in support of Engineering Justification Document WWU.20 – Non-Mandatory Distribution Mains Replacement. Our understanding is the workload proposed was supported by Ofgem's Engineering Team but was disallowed when an 11-year CBA period was applied to the CBA analysis.

This annex sets out our reasoning on why the workload is necessary. We also submit a revised CBA to support our justification for the programme.

2.0 Winter Submission Summary

We submitted our Asset Health Engineering Justification Document (EJD) WWU.20 in December 2024.

As stated in our EJD we are proposing a non-mandatory mains replacement that broadly maintains the health and risk of that asset class. It also contributes to our planned reduction in methane emissions. This will require reforecasting down if the non-mandatory mains replacement is not reinstated in final determinations.

We were pleased to see all steel replacement was allowed but disappointed that tier 2 and tier 3 iron was disallowed. There are a number of reasons why no replacement of tier 2b and Tier 3 are problematic as laid out below.

Legislation

We have an absolute duty under Pipeline Safety Regulations. The regulation states:

The operator shall ensure that a pipeline is maintained in an efficient state, in efficient working order and in good repair.

- *59 This regulation deals with the requirement to maintain the pipeline to secure its safe operation and to prevent loss of containment. Maintenance is essential to ensure that the pipeline remains in a safe condition and is fit for purpose.*
- *60 The operator needs to consider maintenance and inspection requirements for the pipeline. Examination and monitoring of the pipeline are part of routine maintenance. The operator needs to consider both how and when the pipeline should be surveyed and examined to validate and maintain it in a safe condition.*
- *61 The extent of the work done to maintain a pipeline will depend on its material of construction, its location, the fluid conveyed and the condition under which it is operated. For example, for low pressure gas distribution and service pipelines onshore, the operator should monitor the pipeline to secure its safe operation. For major accident hazard pipelines, the maintenance plan should form part of the pipeline's safety management system.*

Due to very limited practicable options to maintain <2bar iron and steel, replacement is essential for GDNs to demonstrate compliance with these regulations.

There is significant correspondence from HSE to support the point that not investing in these assets is not acceptable. We have an example below in the form of a letter from HSE in response to GSMR reports:

'We remain concerned about this pipeline given the large numbers of recent failures. Particularly given these are related to corrosion. Whilst the pipeline may not be subject to replacement via the MRPS it still remains a pipeline and as such is subject to Regulation 13 of the Pipelines Safety Regulations around maintenance. We are going to follow up more widely around the topic of condition monitoring during the intervention plan inspection later in the work year, however in the interim we do need to get more assurance around the plans in place for this specific section of pipeline. Please can you confirm:

1. The timeframe for any planned replacement
2. What additional condition monitoring do WWU propose to undertake in the interim given the high numbers of recent failures on this section of pipeline.

Should we be unable to confirm that these issues are being addressed then we may need to consider enforcement action in relation to these matters.'

Advanced Leak Detection

HSE also require us to condition monitor using Advanced Leak Detection. This is also supported by Ofgem (SSMD) as a useful tool in addressing methane emissions. With no investment in non-mandatory repex, we have no ability to react and respond to the results of ALD surveying. There is little point in surveying the assets if we have no allowance to target emissions, safety and operating costs through mains replacement.

Payback period

The decision to reduce payback period to 2037 appears arbitrary, without supporting analysis and evidence. All GDN's submitted evidence to support a longer period so it would be good to understand the counter evidence that suggests a high probability of gas assets not being needed in 11 years' time.

Getting this wrong has significant financial implications for consumers in future. Ofgem itself is building protections for future consumers into the price control through accelerated depreciation. Using an 11-year assessment period drives opex solutions which, unlike capex, are not recovered over a long period of time but rather there and then. This will mean that bills significantly increase in an opex future for the consumers remaining on the gas network. These are the consumers Ofgem suggest with the least resource to absorb these bill increases.

The investment disallowed using the 11-year payback is predominantly on large diameter iron pipes. These assets tend to feed gas to large groups of consumers from pressure reduction sites on the network. They cannot be decommissioned until all consumers fed from them leave the gas network. Given the lack of targeted policy to electrify areas, and looking at today's incredibly low switch rates to electrification (even given the significant financial incentives), there is no credible scenario where these assets will not be needed well into the 2040s.

This is supported by external bodies to the Networks. Official publications on the future of energy in the UK indicate a long-term role for gas network infrastructure, including in developing pathways to net zero carbon emissions. The UK government has indicated through its "Midstream gas system: update to the market" (June 2025) that it intends to undertake "a long-term programme of work to ensure that the gas system supports our net zero ambitions while continuing to deliver for the British people." [[Midstream gas system: update to the market - GOV.UK](#)]. Advisory publications to UK Government such as National Energy System Operator's Future Energy Scenarios, and Committee on Climate Change Carbon Budget 7 advice, imply that even in scenarios with higher electrification the gas system will continue to be substantially required into the 2040s and beyond.

Appendix WWUQ8X- Non-mandatory mains

Cost Benefit Analysis

Our CBA's went beyond an 11-year payback due to a balanced programme of all types of iron main. Following Ofgem's draft determinations, we have removed iron other than cast from our planned programme as they do not pay back as quickly due to lower leakage and emission rates.

Our revised programme is mainly 12in CI, 15in SI and 300mm DI due to these being categories that payback much earlier than others. The CBA attached shows these payback within the 11 year assessment period. Our planned volumes and spend match our December 2024 business plan submission.

Implications of not funding

If Ofgem's position were to remain unchanged, there will be a number of adjustments required in FDs

- Operating costs will need to increase to reflect the increase in large diameter repairs as these assets deteriorate without replacement.
- Shrinkage and emissions targets will need to be pared back to reflect the lower levels of investment in reducing emissions
- Un-planned interruption targets will need to be reviewed to assess the impact of an increase in large diameter pipe failures

In addition to these impacts, there is also an employee and public safety risk to be considered in repairing larger diameter mains. These are often in more major traffic routes, require large excavations and more time to repair. These factors all increase safety risk and should be avoided if possible. A key safety principle is the 'ERIC' hierarchy of controls (Eliminate, Reduce, Inform, Control). Eliminating risk is the most effective and should be adopted wherever possible.

Conclusion

Whilst the 3-tier approach has tier 2b and tier 3 as non-mandatory, doing no replacement in these categories is not acceptable to HSE and is non-compliant with the Pipeline Safety Regulations. For the reasons laid out in this document and the supporting CBA, we ask Ofgem to re-instate this work for RII03.