

Appendix WWUQ8F – Governors

Annex to EJD WWU.25 – Governors

1.0 Introduction

This annex document provides additional supplementary information in support of Engineering Justification Document WWU.25 – Governors. The content and structure has been developed based on the feedback we've gratefully received in bilateral discussions with the Ofgem Engineering Assessment team.

2.0 Winter Submission Summary

We submitted our Asset Health Engineering Justification Document (EJD) WWU.25 in December 2024. The document included a description of the assets within Governors asset group, including District, Industrial & Commercial and Service Governors, and we provided our justification for the interventions required on this asset group.

We explore multiple options for managing assets to arrive at an optimum plan that considers asset health, consequence of failure, whole life cost, compliance with legislation and HSE expectations. As stated in our EJD we are proposing Option 2: Balanced Plan, a combination of refurbishment and replacement interventions.

Our RIIO-GD3 workload and the associated costs are detailed in Table 1 below:

Table 1 - RIIO-GD3 Submission Summary

	RIIO-GD3	
	Cost (£m)	Volume (No.)
Inspection	████	436
Refurbishment	████	1,025
Replace Component	████	520
Replace Fence	████	75
Replace Housing	████	225
Replace Entire Installation	████	458
Total	████	2,739

3.0 WWU Draft Determination

In Ofgem's Draft Determinations consultation the proposed outcome for Governors was noted as 'Partially Justified' and Option 1: Refurbishment Only was proposed. The detail noted "We have proposed alternative optioneering for refurbishment only. The refurbishment only option yields a better net present value (NPV) and is a technically viable option that addresses asset health, maintains compliance and extends the life of the asset beyond 10 years. Although replacement may be necessary in some instances, it is not clear from the asset health data currently provided which assets this would apply to. Potential replacements should be clearly identified by supporting asset health data to support any alternative engineering optioneering."

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3.1 Impact of Draft Determinations

Table 2 and 3 below compare RIIO-GD2 Actuals / Forecast, RIIO-GD3 Business Plan (Submission: December 2024) and RIIO-GD3 Draft Determinations. These comparisons are split out by spend type and work category, defined below.

Table 2 - Comparison Between: RIIO-GD2, RIIO-GD3 Business Plan & Draft Determinations

EJP	GD2 Actuals/Forecast		GD3 BP		GD3 DD	
	Workload	£	Workload	£	Workload	£
WWU.25 - Governors (CAPEX)	560	■	768	■	0	0.0m
WWU.25 - Governors (OPEX)	1,888	■	1,971	■	2,739	6.3m

Table 3 - Activities Split Out by Spend Type and Work Category

Spend Type	Work Category	GD3 BP		GD3 DD	
		Volume	Cost (£M)	Volume	Cost (£m)
Capex / Repex	Legislative Compliance - Fixed Workload	-	-	-	-
	Legislative Compliance - Variable Workload	418	■	0	0.0
	Other Priority Work	350	■	0	0.0
	Capex Total	768	■	0	0.0
Opex	Legislative Compliance - Fixed Workload	436	■	436	0.1
	Legislative Compliance - Variable Workload	920	■	1,338	4.6
	Other Priority Work	615	■	965	1.6
	Non-Routine Maintenance Opex Total	1,971	■	2,739	6.3
	Total	2,739	■	2,739	6.3

The workload categories we have illustrated are defined as follows:

- Legislative Compliance – Fixed Workload
 - PSSR Inspections undertaken in accordance with a Written Scheme of Examination (WSoE), e.g. testing of slam-shuts or reliefs
- Legislative Compliance – Variable Workload
 - Annual Maintenance Plan (AMP) tasks, predominantly RCM based
 - Remedial work identified during inspection / maintenance to ensure continued fitness for purpose, e.g. component replacement
 - Site Refurbishment identified following inspection / maintenance / failure
 - Site Replacement identified following inspection / maintenance / failure
- Other Priority Work
 - Occupational safety, e.g. paths, handrails
 - Security, e.g. fences, doors
 - Site fabric, e.g. ducts, chambers

The principle legislative driver for this asset group is Regulation 13 of the Pipelines Safety Regulations – ‘The operator shall ensure that a pipeline is maintained in an efficient state, in efficient working order and in good repair’. These installations provide the protection from over-pressure, ensuring that the downstream pipeline does not exceed its safe operating limit, and therefore play a vital role.

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We do not consider the proposed workloads set out in the Draft Determinations, which do not allow any wholesale replacement, or major refurbishment, would enable WWU to remain compliant with the Pipelines Safety Regulations. This would result in an unacceptable risk of Governor assets failing, leading to significant safety impacts including uncontrolled release of gas and / or significant loss of supply incidents.

In this scenario it is likely that enforcement action would be taken by the Health & Safety Executive, either as a result of findings during their regular intervention programme, or as a result of an investigation that may follow an incident.

3.2 WWU Draft Determination Response

WWU operates a population of 3,003 large Governor assets (2,384 District Governors and 619 Industrial & Commercial Governors), and these installations have an expected asset life of ~50 years. Asset life-cycle analysis would therefore suggest we would be expecting to replace circa 60 installations per annum. Our Balanced Plan, which is a combination of refurbishment and replacement interventions, results in our proposal to undertake only 43 condition-based replacements in RIIO-GD3 (35 District Governors and 8 I&C Governors).

We also operate a population of circa 14,000 Service Governors with a similar life expectancy of 50 years for the regulator rig and a life expectancy for the kiosk of 20-25 years. As such our proposed replacement volume of 375 over GD3 is substantially lower than a lifecycle analysis would suggest of circa 280 per annum, or 1,400 over GD3. We select these replacements based on a fix-on-failure approach due to the low consequence. Triggers for replacement are when the scheduled 20-year functional check reveals a problem that cannot be repaired, or an installation fails or is damaged, resulting in a fault being reported by the customer.

The condition of our Governor population is established through our planned inspection and maintenance programme, and the modelled health is defined in our NARM model for this asset group. Where this inspection and maintenance programme identifies an asset in poor condition, or that it is not functioning correctly, the first choice is always refurbishment where this is possible and will restore the installation to an acceptable level of function and condition.

There are however instances where refurbishment is not appropriate, these include:

- Where the condition or function cannot be restored by the available refurbishment options
- Where the cost of refurbishment does not represent value for money, as compared to replacement, when considering whole life cost
- Where the criticality of an asset means operating an asset with an increasing fault rate is an unacceptable risk
- Where components or the entire installation is obsolete

Obsolescence is a growing problem due to reduced competition in the market following recent acquisitions. All legacy UK based manufacturers are now owned by Honeywell, which is actively rationalising its product range (example correspondence included in Appendix H), resulting in a significant number of assets in our estate becoming obsolete. This means that they are not supported by the OEM and spares are either discontinued or in short supply.

To mitigate the impact and avoid wholesale replacement of obsolete assets before their end of life, where possible we are retaining serviceable components from decommissioned installations and holding them as stock, so we can continue to operate these assets.

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The total workload for Replace Entire Installation of 418 is made up of the items described above (35 District Governors, 8 I&C Governors and 375 Service Governors), it is critical to the safety and reliability of the distribution network that this replacement workload is reinstated in the Final Determinations. The data provided in Appendix G gives the Current Asset Health and the Site Locations of specific assets.

Reinforcement governor workload has been broken out in Table 4 and is 40 new installations over the GD3 period. This is based on the annual workload we are forecasting due to general reinforcement needed in the distribution network, where installing a governor is lower whole life cost than laying reinforcement mains, or an existing governor becomes undersized. In addition, in some cases installation of an additional District Governor enables mains replacement by insertion, rather than open cut, leading to an overall lower whole life cost to the consumer.

The remaining workload that has been disallowed in the Draft Determinations is replacement of fences, kiosks and main components, all of which constitute major refurbishment. If this workload is not reinstated in the Final Determinations, then the governor assets will reach end of life sooner and thus increase wholesale replacement volumes in the medium to long term. For example, continually patch-fixing a kiosk roof after the end of its useful life will subject the governor rig to water ingress, leading to accelerated corrosion and reduced life. This intervention approach would increase operational expenditure and reduce effectiveness.

Appendix G is an extract from our NARM model for District Governors and I&C Governors, whilst Service Governors are included in NARM modelling at population level, they are not included in this extract.

The workload highlighted for GD3 in the NARMS extract (App. 1) for replacement and refurbishment activities corresponds with the workload in Table 4 below.

The rows highlighted in table 4 are those work items removed in the Draft Determinations that result from discounting our recommended Option2: Balanced Plan which is a combination of refurbishment and replacement interventions.

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Table 4 - Cost & Volumes by Asset Types

Intervention Category (per EJP Table 1)	Intervention Scope	District Governor		Industrial & Commercial Governor		Service Governor		Total	
		Cost (£m)	Volume (No.)	Cost (£m)	Volume (No.)	Cost (£m)	Volume (No.)	Cost (£m)	Volume (No.)
Refurbishment	Below Ground Module Major Overhaul		24*		6*		0		30
Inspection	ES/94/10.2 Pressure Vessel PSSR Inspection		13		0		0		13
Inspection	ES/94/13.6 Service Governor PSSR Inspection		0		0		345		345
Inspection	Inspection / Maintenance of CP System		78		0		0		78
Replace Component	Install Impact Protection System		8		2		0		10
Refurbishment	Japanese Knotweed Treatment Programme		125		0		0		125
Refurbishment	New Door		37		8		0		45
Refurbishment	New Roof		24		6		0		30
Replace Entire Installation	New Site (<i>incl. Reinforcement</i>)		35		5		0		40
Refurbishment	Painting Programme		636*		159*		0		795
Replace Component	Replace Auxiliary Component(s)		320		80		100		500
Replace Fence	Replace Fence		61		14		0		75
Replace Housing	Replace Kiosk		100		25		100		225
Replace Component	Replace Main Component(s)		8		2		0		10
Replace Entire Installation	Replace Rig		35*		8*		375		418
Total			1,504		315		920		2,739

* These items correspond with the GD3 interventions listed in Appendix G

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4.0 Conclusion

Following feedback in the WWU Draft Determinations document and the Bilateral meeting between Ofgem and WWU on 5th August 2025, this Annex document provides the additional asset and workload data that was missing from our original submission, to support the case for proceeding with Option 2: Balanced Plan, in line with our original submission.

We hope this is an adequate explanation for Ofgem to support our case for the workload presented in our EJD, rather than the reduced workload proposed in the Draft Determinations.

5.0 Appendices

Appendix G

WWUQ8G- DG & IC Gov Data

Site-specific asset information for District and large I&C Governors, including:

- Asset Type
- Asset Sub-Type (DG or I&C)
- Site ID
- Site Name
- Sub-System ID
- Install Year
- Obsolete Component(s) on Site
- Customers Supplied by Site
- Customers Supplied by Sub-System
- Customer Type
- Intervention in RIIO-GD1 (Yes/No)
- Intervention in RIIO-GD2 (Yes/No)
- Proposed Intervention in RIIO-GD3 (Yes/No)
- Proposed Intervention Type in RIIO-GD3 (Yes/No)
- Fault Rate, Start of RIIO-GD3
- Fault Rate, End of RIIO-GD3
- Risk Score, Start of RIIO-GD3
- Health Score, Start of RIIO-GD3
- Health Score, End of RIIO-GD3




Appendix WWUQ8G-
DG & IC Gov Data.xlsx

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Appendix H

Example of correspondence received by Honeywell confirming discontinued equipment:

<div>General Guidelines</div> <div>Honeywell Bryan Donkin Gas Technologies Ltd.</div> <div></div>						
<div>NLS – Discontinued Equipment where Spares are No Longer Available</div> <div>(Sheet 1 of 3)</div>						
Model Reference	Size	Type	Last Manufacture	Recommendations\Comments	Soft Kits Available	Other Parts Available
OPCO MK1	N/A	Add on SCOV	1983	Replace with HON 309LP OPCO	NO	NONE
RS10d HH & SS	1/4"	Pilot Regulator	1990	Other RS10d variants current production	NO	NONE
O41C	3/4" & 1"	Regulator	1974	Replace with HON Elster O40	NO	NONE
O41CR (ECL)	3/4" & 1"	Regulator	1974	Replace with HON Elster O40	NO	NONE
39	1/4"	Pilot Regulator	1974	No Replacement available	NO	NONE
121-8	1"	HC Regulator	1974	Replace with HON 270 Mk.2 as necessary	NO	NONE
121-8	1 1/2" & 2"	HC Regulator	1974	Replace with HON 280H regulator	NO	NONE
121-12	1 1/2" & 2"	HC Regulator	1974	Replace with HON 280H regulator	NO	NONE
200	3/4" & 1"	Reg./HP Pilot	1988	Replace with HON 204	NO	NONE
201 (MKII)	3/4" & 1"	Relief	1989	Replace with latest model Relief (HON 205)	NO	NONE
226 Mark 1	3/4" & 1"	Regulator	1976	Replace with HON 226 MK.2 regulator	NO	NONE
226 Mark II	1" T, 1 1/4" & 1 1/2"	Reg & RV	1988/90	Replace with HON 226 MK.3 regulator or relief valve	NO	NONE
226 HR Mark II	1 1/4" to 3"	Relief	1990	No replacement available	NO	NONE
226 HR MKII	1" T & 1 1/4"	Relief	1989	No Replacement available	NO	NONE
239	1"	Special Relief	1985	No Replacement available	NO	NONE
242A & 242B	3/4" & 1"	Reg & SCOV	1978	Replace with HON 240-309LP OPCO	NO	NONE
243-8	1 1/2" & 2"	Regulator	1974	Consider replacement with HON 270 Mk.2 regulator	NO	NONE
243-12	1 1/2" & 2"	Regulator	1974	Consider replacement with HON 270 Mk.2 regulator	NO	NONE
24302	1 1/2" & 2"	Reg & SCOV	1978	Replace with HON 270 Mk.2 – 309 OPCO	NO	NONE
249	1"	Limiting Pilot	1985	No Replacement available	NO	NONE

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