

GDQ36 – Annex 4:

Robotic Intervention Synthetic Cost Driver Calculations

In our response to GDQ36 (specifically on Cost Exclusions) we describe how Robotic Intervention work can be incorporated into the repex synthetic cost driver. Below we set out supplementary calculations underpinning the two approaches we have developed.

Approach 1

[redacted]

Underlying Input Variables

Variable	Description	Source	Unit	Time Period	Normalisation Applied
Industry Average Unit Cost - Tier 2B Diameter Band: F 10"-12"	Repex: Robotic Intervention	Ofgem Repex Synthetic UC Model	£m	2022-2031	None
Industry Average Unit Cost - Tier 2B Diameter Band: G 12"-17"	Repex: Robotic Intervention	Ofgem Repex Synthetic UC Model	£m	2022-2031	None
Industry Average Unit Cost - Tier 3 Diameter Band: H 18"-24"	Repex: Robotic Intervention	Ofgem Repex Synthetic UC Model	£m	2022-2031	None
Industry Average Unit Cost - Tier 3 Diameter Band: I greater than 24"	Repex: Robotic Intervention	Ofgem Repex Synthetic UC Model	£m	2022-2031	None
Volume commissioned - Tier 2B Diameter Band: F 10"-12"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 2B Diameter Band: G 12"-17"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 3 Diameter Band: H 18"-24"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 3 Diameter Band: I greater than 24"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None

Approach 2

[redacted]

Underlying Input Variables

Variable	Description	Source	Unit	Time Period	Normalisation Applied
Industry Average Unit Cost - Tier 2B Diameter Band: F 10"-12"	Repex: Robotic Intervention	Cadent analysis. Average of UC for diameter band, for all years reporting cost and volumes, for Cadent and SGN.	£m	2022-2031	Regional Factor adjusted
Industry Average Unit Cost - Tier 2B Diameter Band: G 12"-17"	Repex: Robotic Intervention	"	£m	2022-2031	Regional Factor adjusted
Industry Average Unit Cost - Tier 3 Diameter Band: H 18"-24"	Repex: Robotic Intervention	"	£m	2022-2031	Regional Factor adjusted
Industry Average Unit Cost - Tier 3 Diameter Band: I greater than 24"	Repex: Robotic Intervention	"	£m	2022-2031	Regional Factor adjusted
Volume commissioned - Tier 2B Diameter Band: F 10"-12"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 2B Diameter Band: G 12"-17"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 3 Diameter Band: H 18"-24"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None
Volume commissioned - Tier 3 Diameter Band: I greater than 24"	Repex: Robotic Intervention	CV6.12 Robotic intervention BPDT	km	2022-2031	None

Regional Factor Adjustments

[illegible][illegible][illegible]

	Total Adjustment
EoE	0.012232
Lon	0.195663
NW	-
WM	-
NGN	-
Sc	-
So	0.092807
WWU	-

The Total Adjustment represents the sum of averages over the period:

	Labour adj.	Productivity adj.	Company Specific Factors adj.	Total adj.
EoE	0.007330	0.004902	0	0.012232
Lon	0.106943	0.062692	0.260280	0.195663
NW	0	0	0	0
WM	0	0	0	0
So	0.055732	0.020333	0.016742	0.092807

All diameter band costs in previous calculations have been adjusted to remove the impact of regional factors before incorporating in the synthetic costs. For example, the EoE 2022 Tier 3 diameter H gross cost of £581,384 was adjusted by a factor of 0.987768 (1-0.012232) and the result of £574,573 used in the derivation of the average unit cost across the industry for that diameter band with similarly calculated costs for the other years and networks.

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