



Australian  
Gas Networks

Appendix 2

## **Capital Expenditure Access Arrangement Period Variance**

Final Plan 2023/24 – 2027/28

July 2022



## Capital expenditure in the Current Access Arrangement Period

### Supporting Information

This document has been prepared to respond the following clause in the Regulatory Information Notice (RIN):

3.3 Explain in the materials submitted to the *AER*:

(a) in terms of the nature of the work undertaken (scope, scale or other deviation from proposed works), the volume and the cost (deviation in unit rates), any *material difference* for each *capital expenditure purpose* between:

(i) the *capital expenditure* approved by the *AER* and the actual and/or estimated *capital expenditure* for the *current access arrangement period*; and

(ii) the *capital expenditure* proposed by the *pipeline service provider* and the actual and/or estimated *capital expenditure* for the *current access arrangement period*.

## Capital expenditure in the Current Access Arrangement Period

### Supporting Information

## Requirement 3.3 (a) (i) variations to approved capital expenditure

Table 1: Variations to Approved Nominal Capital Expenditure by purpose (\$ million nominal)

Actual	2018	2019	2020	2021	2022	Total	
E5. Growth assets	43.511	48.317	46.870	44.536	48.911	232.145	
E2. Mains replacement	18.866	30.469	53.470	62.813	78.069	243.686	
E4. Meter replacement	7.340	6.634	6.162	6.093	5.691	31.920	
E3. Augmentation	1.216	1.557	1.046	2.250	9.141	15.210	
E6. Telemetry	0.288	0.171	0.486	0.400	0.279	1.625	
E13. Other assets	9.468	8.605	14.547	32.530	34.438	99.587	
E12. IT	3.937	8.095	7.763	14.958	11.625	46.377	
E10. Overheads	9.051	10.534	12.434	13.827	15.470	61.317	
<b>Total (Gross)</b>	<b>93.677</b>	<b>114.383</b>	<b>142.778</b>	<b>177.406</b>	<b>203.623</b>	<b>731.87</b>	
Benchmark	2018	2019	2020	2021	2022	Total	
E5. Growth assets	37.121	36.414	37.230	38.217	40.667	189.648	
E2. Mains replacement	34.679	37.673	38.544	36.215	9.739	156.850	
E4. Meter replacement	7.657	7.812	7.955	5.464	5.729	34.618	
E3. Augmentation	9.511	12.607	7.955	3.741	2.431	36.245	
E6. Telemetry	0.279	0.274	0.273	0.276	0.161	1.263	
E13. Other assets	4.846	6.801	12.376	8.801	4.548	37.373	
E12. IT	11.827	25.497	17.738	5.673	6.941	67.675	
E10. Overheads	11.777	12.400	12.457	11.950	11.770	60.354	
<b>Total (Gross)</b>	<b>117.697</b>	<b>139.479</b>	<b>134.528</b>	<b>110.336</b>	<b>81.987</b>	<b>584.03</b>	
Variance	2018	2019	2020	2021	2022	Total	%
E5. Growth assets	6.391	11.903	9.641	6.318	8.244	42.497	22.4%
E2. Mains replacement	-15.813	-7.205	14.926	26.598	68.329	86.836	55.4%
E4. Meter replacement	-0.318	-1.178	-1.793	0.629	-0.038	-2.698	-7.8%
E3. Augmentation	-8.295	-11.050	-6.909	-1.490	6.710	-21.035	-58.0%
E6. Telemetry	0.009	-0.103	0.213	0.124	0.119	0.362	28.6%
E13. Other assets	4.622	1.804	2.171	23.728	29.890	62.214	166.5%
E12. IT	-7.890	-17.402	-9.975	9.285	4.684	-21.298	-31.5%
E10. Overheads	-2.726	-1.866	-0.023	1.878	3.700	0.963	1.6%
<b>Total (Gross)</b>	<b>-24.020</b>	<b>-25.096</b>	<b>8.249</b>	<b>67.070</b>	<b>121.637</b>	<b>147.841</b>	<b>25.3%</b>

Positive variations signify overspending.

#### **E5. Connections (Growth Assets)**

New connections overspend to date has mainly been driven by higher than expected residential housing developments in the growing corridors in Melbourne's south east out to Cardinia and Crib Point and northern suburbs and regional areas including Wodonga, Traralgon and Echuca.

Higher than expected unit rates result from unexpected work in new estates with ready established footpaths increasing excavation, plant and reinstatement costs under more onerous developer reinstatement guidelines.

#### **E2. Mains Replacement**

By the end of 2022, a total of 290 kilometres of mains is forecast to be replaced, which is only slightly less than the 297 kilometres forecast.

The program has had delays including Melbourne CBD works where unit rates were significantly higher than anticipated, resulting in mains replacement exceeding forecast by 17.8 per cent. Melbourne CBD unit rates have been three to four times higher than the forecast due to the number of services and complexity of the work making excavation and reinstatement more time consuming and expensive.

#### **E4. Meter Replacement**

Meter replacement has underspent purely on account of low replacement volumes mainly in 2019 and 2020. Replacement volumes were low in these years because we changed our field life extension testing practices to carry out more testing in an effort to increase the useful life of meters. Fewer meters were taken out of field as a result.

#### **E3. Mains Augmentation**

Augmentation underspent mainly because network flows were less than forecast during the current period which allowed the final stage of Dandenong to Crib point pipeline duplication scheduled for 2021 to be deferred to 2025 without adverse customer impacts.

Additionally, Sale city gate was deferred because we developed a short-term solution with the Australian Energy Market Operator who initially requested a pressure reduction risk management strategy which prompted the long-term solution in the original business case.

Cranbourne augmentation expenditure was reduced by a change in project scope, splitting it into two components; city gate and mains. The city gate component is reclassified as 'Other' opex along with custody transfer meter upgrades in business case V13 and the Dandenong to Crib Point refurbishment. Only Cranbourne mains were left in augmentation expenditure.

#### **E6. Non-network (Telemetry)**

The original business case V08 envisaged six fringe point completions over the AA (57 completed by AA start and 63 completed by AA end) in sites distant from Melbourne.

Capex that materialised overspent the allowance in 2020 and 2021 due to work on more locations differing to those in the original business case, particularly at low pressure fringe points in the Melbourne CBD.

## Capital expenditure in the Current Access Arrangement Period

### Supporting Information

The Asset Planning team identified a need to monitor low-pressure fringe points in the Melbourne CBD. Most of the capex in 2020 related to a project to provide remote monitoring at five locations in the CBD. Four other fringe points were completed in the metro region (Doreen Mernda Lyndhurst and Devon Meadows).

Through 2021, one of the CBD fringe points lacked any pre-existing infrastructure incurring installation costs with the Melbourne City Council and CitiPower. Additionally, communication connectivity issues due to 3G obsolescence incurred significant spending on 4G modems.

### E13. Other

The 'Other Capex' category overspends because substantial mains alterations is allocated to this category. A substantial proportion of mains alterations are customer funded. After excluding mains alterations, the 'Other Capex' category underspends by \$9.8 million or 30%. This is largely a result of pipelines PL49 and PL66 in v83 not moving beyond the Front End Engineering design (detailed scoping and costings) stage for the following reasons.

It was found that PL49 had a significant number of incompatible features that would need to be cut out and removed to allow the pig to pass. As a result, pigging the entire pipeline was infeasible in this AA due to the high associated cost exceeding the current AA budget. A reduction in scope to a 5.4km subsection deferred to the next AA will minimise costs.

Additionally, the integrity team undertook work to re-rank the pipelines flagged for pigging including those under business case v83 in the current AA. Consequently, PL66 is now re-ranked and deferred to the next AA.

### E12. Information and Communication Technology (ICT)

The underspending on ICT is mainly applications renewals and the Business Intelligence and Geospatial Information System (GIS) upgrade project.

Applications Renewal was the main source of underspending. A key area of cost savings is the Enterprise Asset Management project which benefited from effective contract negotiations and favourable rates. Other projects benefited from consolidation, while others have not proceeded due to dependencies on other projects.

Business Intelligence is delayed due to data dependencies on GIS and Mobility projects which were also delayed. APA and AGN explored options to revive the project in the current regulatory, but they did not provide the requisite cost savings.

Phase 2 of the GIS upgrade, data cleansing and conflation is about to commence, but will be completed end calendar year 2023. Some cost benefits stem from contract negotiations and securing favourable rates.

### E10. Capitalised network overheads

Variance is within 10 per cent and so not considered material.

## Capital expenditure in the Current Access Arrangement Period

### Supporting Information

## Requirement 3.3 (a) (ii) variations to proposed capital expenditure

Table 2: Variations to Proposed Nominal Capital Expenditure by purpose (\$million nominal)

Actual	2018	2019	2020	2021	2022	Total	
E5. Growth assets	43.511	48.317	46.870	44.536	48.911	232.145	
E2. Mains replacement	18.866	30.469	53.470	62.813	78.069	243.686	
E4. Meter replacement	7.340	6.634	6.162	6.093	5.691	31.920	
E3. Augmentation	1.216	1.557	1.046	2.250	9.141	15.210	
E6. Telemetry	0.288	0.171	0.486	0.400	0.279	1.625	
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E12. IT	3.937	8.095	7.763	14.958	11.625	46.377	
E10. Overheads	9.051	10.534	12.434	13.827	15.470	61.317	
<b>TOTAL (GROSS)</b>	<b>93.677</b>	<b>114.383</b>	<b>142.778</b>	<b>177.406</b>	<b>203.623</b>	<b>731.867</b>	
Initial Proposal	2018	2019	2020	2021	2022	Total	
E5. Growth assets	35.187	35.236	36.430	37.261	39.653	183.767	
E2. Mains replacement	35.607	38.573	39.454	37.212	9.554	160.401	
E4. Meter replacement	7.659	7.813	7.956	5.440	5.704	34.572	
E3. Augmentation	5.760	9.660	7.804	3.670	2.384	29.277	
E6. Telemetry	0.274	0.269	0.268	0.271	0.158	1.239	
E13. Other assets	4.753	6.672	12.141	8.634	4.461	36.662	
E12. IT	11.602	25.012	17.400	5.565	6.809	66.387	
E10. Overheads	11.491	12.135	12.254	11.753	11.543	59.176	
<b>TOTAL (GROSS)</b>	<b>112.332</b>	<b>135.370</b>	<b>133.707</b>	<b>109.805</b>	<b>80.266</b>	<b>571.481</b>	
Variance	2018	2019	2020	2021	2022	Total	%
E5. Growth assets	8.325	13.081	10.440	7.274	9.258	48.378	26.3%
E2. Mains replacement	-16.741	-8.105	14.015	25.601	68.514	83.285	51.9%
E4. Meter replacement	-0.319	-1.179	-1.794	0.653	-0.013	-2.652	-7.7%
E3. Augmentation	-4.544	-8.102	-6.758	-1.419	6.756	-14.067	-48.0%
E6. Telemetry	0.015	-0.097	0.218	0.129	0.122	0.386	31.1%
E13. Other assets	4.715	1.933	2.406	23.896	29.976	62.926	171.6%
E12. IT	-7.665	-16.917	-9.637	9.393	4.816	-20.010	-30.1%
E10. Overheads	-2.440	-1.601	0.180	2.074	3.928	2.141	3.6%
<b>TOTAL (GROSS)</b>	<b>-18.656</b>	<b>-20.987</b>	<b>9.071</b>	<b>67.602</b>	<b>123.357</b>	<b>160.387</b>	<b>22%</b>

Positive variations signify overspending.

The initial proposal was accepted in the Draft Decision with a minor exception on forecast connection volumes relating to the proposed marketing step change. Key drivers of variance are therefore the same as to benchmark outlined for 3.3 (a) (i).