



ATTACHMENT 3 - VARIANCE ANALYSIS

REGULATORY INFORMATION NOTICE (APRIL 2022)

GAS DIVISION

PUBLIC

For the regulatory years 2019, 2020 and 2021

31/08/2022

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1. DOCUMENT OUTLINE

This document is the Variance Analysis that explains the variances between the forecasts in the AA5 Final Decision and actuals.

ATCO has prepared this variance analysis for the variances in demand, operating expenditure and capital expenditure in accordance with the variance requirements specified in the Microsoft Excel workbook. This document details the variances for the regulatory years 2019 (where required), 2020 and 2021.

ATCO has structured the Variance Analysis as follows:

- Section 2 – This section provides information on the variances for demand, in particular the variances identified in tab “4a-Demand” in the Microsoft Excel workbook
- Section 3– This section provides information on the variances for operating expenditure, in particular the variances identified in tab “5-Opex” in the Microsoft Excel workbook
- Section 4– This section provides information on the variances for capital expenditure, in particular the variances identified in tab “6b-capex” in the Microsoft Excel workbook

With regard to the data presented in this document:

- All dollar values are expressed in nominal dollars unless otherwise stated.
- Some tables may not add up due to rounding.
- Dollar amounts are presented as millions of dollars rounded to 1 decimal place.

2. DEMAND

In this section ATCO has provided reasons for the variance between the approved forecast and actual where the variance is greater than the following specified amounts:

- For haulage reference services: +/- 5%
- For ancillary reference services: +/- 25% and more than 1000 units of activity (in absolute value)

2.1 Haulage reference services demand overview

Actual customer numbers across the 2019-2021 period of AA5 are slightly higher than those forecast, ranging from 0.3% to 0.5% higher as shown in Table 2.1 driven by retail customer numbers (B3 tariff).

Table 2.1: Overall customer numbers

Customers (No.'s)	2019	2020	2021
AA5 Final Decision	748,930	754,571	762,417
Actual	750,926	758,155	765,679
Variance	1,996	3,583	3,262
Variance %	0.3%	0.5%	0.4%

Actual usage across the 2019-2021 period of AA5 is cumulatively lower than forecast by 50TJ with 2019 and 2020 showing a decreased usage of 870TJ and 158TJ respectively with 2021 usage being 978TJ higher than forecast as shown in Table 2.2. Usage by tariff indicates that the lower usage in 2019 and 2020 comes predominantly from lower commercial/industrial consumption, with the higher usage in 2021 coming from a combination of residential (B3 Tariff) and industrial (A1 Tariff) consumption.

Table 2.2: Overall Usage (TJ)

Usage (TJ)	2019	2020	2021
AA5 Final Decision	26,851	26,815	27,115
Actual	25,981	26,657	28,093
Variance	-870	-158	978
Variance %	-3.2%	-0.6%	3.6%

The above variances are explained further below.

2.2 Haulage reference services customer numbers

Haulage reference service customer numbers were within variance limits.

2.3 Haulage reference services usage

ATCO has provided reasons for the variance for haulage reference service usage only for the services and years where the applicable variance threshold has been reached.

2.3.1 A1 tariff class

In 2019, usage for the A1 tariff class was 6.02% lower than forecast predominantly due to a slower than anticipated usage ramp up by [REDACTED] accounting for 550TJ of the 699TJ variance.

2.3.2 A2 tariff class

In 2020, usage for the A2 tariff was 5.9% lower than forecast as shown in Table 2.3 predominantly due to COVID-19 lockdowns reducing the average consumption compared to forecast. In addition, a 42 TJ customer transferred to the A1 tariff class also reducing usage in the A2 tariff class.

Table 2.3: A2 tariff class consumption variance 2020

A2 TARIFF CLASS	AA5 Final Decision	Actual	Variance	
Customers	106	106	0	0.0%
Usage (TJ)	1,819	1,711	-108	-5.9%

2.3.3 B1 tariff class

2019

In 2019, usage for the B1 tariff class was 110 TJ lower than forecast due to:

- transfers of larger B1 connections to the A2 tariff class
- warmer weather equating to -10GJ per customer
- the ongoing trend of declining consumption per customer

The drop in average consumption was partially offset by a larger customer base (+13TJ). Variances are summarised in Table 2.4.

Table 2.4: B1 tariff class consumption variance 2019

B1 TARIFF CLASS	AA5 Final Decision	Actual	Variance	
Customers	1,728	1,739	11	0.6%
Average Consumption (GJ)	1,193	1,123	-70	-5.9%
Usage (TJ)	2,062	1,953	-110	-5.3%

2020

In 2020, usage for the B1 tariff class was 13% lower than forecast due to COVID-19 lockdowns which reduced average consumption compared to forecast (-304TJs). Lower average consumption was partially offset by a larger customer base (+33TJ). Variances are summarised in Table 2.5.

Table 2.5: B1 tariff class consumption variance 2020

B1 TARIFF CLASS	AA5 Final Decision	Actual	Variance	
Customers	1,780	1,808	27	1.5%
Average Consumption (GJ)	1,186	1,018	-168	-14.2%
Usage (TJ)	2,112	1,840	-271	-12.9%

2.3.4 B2 tariff class

In 2020, usage for the B2 tariff class was 10% lower than forecast due to COVID-19 lockdowns causing lower than forecast average consumption. The decline in usage was further increased by a decline in the customer base. Details are shown in Table 2.6.

Table 2.6: B2 tariff class consumption variance 2020

B2 TARIFF CLASS	AA5 Final Decision	Actual	Variance	
Customers	12,239	12,130	-109	-0.9%
Average Consumption (GJ)	112.21	102.09	-10.12	-9.0%
Usage (TJ)	1,373	1,238	-135	-9.8%

2.3.5 B3 Tariff class

In 2021 usage for the B3 tariff class was 6% higher (586 TJ higher) than forecast predominantly driven by higher average usage per customer than forecast that resulted in 539 TJ of additional usage. The increase in average residential usage coincided with COVID 19 restrictions in Western Australia that saw reduced interstate and international travel and resulted in an increase in working from home activity. 2021 was also colder than average contributing to an increase in average consumption.

An additional 3,514 customers (yearly average) above forecast resulted in an additional 49 TJ usage. Details are shown in Table 2.7.

Table 2.7: B3 tariff class consumption variance 2021

B3 TARIFF CLASS	AA5 Final Decision	Actual	Variance	
Customers	747,883	751,397	3,514	0.5%
Average Consumption (GJ)	13.27	13.99	0.72	5.4%
Usage (TJ)	9,926	10,512	586	5.9%

2.4 Ancillary reference services

ATCO has provided reasons for the variance for ancillary reference service usage only for the services and years where the applicable threshold has been reached.

2.4.1 Deregistering a delivery point

The reasons for the variance in this service for the applicable years are:

- **2019:** The 2019 -53% variance is due to [REDACTED]

- 2020: The 309% variance in deregistering a delivery point was due to [REDACTED]

2.4.2 Special meter reading

In 2019 the 28% increase in special meter reads (+33,322) reflects the increase in retail market competition in part due to an additional retailer, Simply Energy, joining late 2018. Special meter reads are requested when customers change retailers.

2.4.3 Meter locks and disconnections

The following tables compare the AA5 Final Decision forecasts with the actual 2020 and 2021 demand for meter lock and disconnection ancillary services showing the drop in activity compared to forecast.

Table 2.8: 2020 demand for ancillary services (Number of units of activity)

ANCILLARY SERVICE	2020 Final Decision	2020 Actual	Variance	% Variance
Applying a Meter Lock (AML)	9,329	3,305	-6,024	-64.6%
Removing a Meter Lock (RML)	8,077	3,263	-4,814	-59.6%
Disconnecting a Delivery Point (MRM)	3,646	911	-2,735	-75.0%
Reconnecting a Delivery Point (MTN)	2,927	1,357	-1,570	-53.6%

Table 2.9: 2021 demand for ancillary services (number of units of activity)

ANCILLARY SERVICE	2021 Final Decision	2021 Actual	Variance	% Variance
Applying a Meter Lock (AML)	9,429	1,367	-8,062	-85.5%
Removing a Meter Lock (RML)	8,164	872	-7,292	-89.3%
Disconnecting a Delivery Point (MRM)	3,685	163	-3,522	-95.6%
Reconnecting a Delivery Point (MTN)	2,959	182	-2,777	-93.8%

The variance in this service compared to forecast, in both 2020 and 2021, is due to a general decrease in credit control by retailers compared to the forecast. This was largely due to COVID-19 when retailers voluntarily paused customer disconnections due to non-payment of their gas bill.¹

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¹ <https://www.erawa.com.au/cproot/21649/2/Annual-data-report---Energy-retailers-2019-20.PDF>

² <https://www.erawa.com.au/cproot/22392/2/Final-for-publication---Annual-data-report---Energy-retailers-2020-21.pdf>

3. OPERATING EXPENDITURE

In this section ATCO has provided reasons for the variance between the approved forecast and actual where the variance is greater than +/- 10% and more than \$0.5 million (in absolute value).

The section provides the reasons for the variance by expenditure category only where the above variance criteria is met.

3.1 Network

Network operating costs are made up of network maintenance and network control and operations support:

- **Network maintenance:** Network maintenance opex costs include:
 - preventative, corrective and reactive maintenance activities as outlined in the Asset Management Plan
 - management and supervision associated with asset inspections and maintenance
 - the provision of 24/7 operations and network emergency response across the geographic footprint of the network
 - network repairs, installation inspections, and third-party damage prevention activities including our third-party damage prevention programs (such as DBYD), meterset painting, and asset sampling studies.
- **Network control and operations support:** Our Network Control and Operations Support teams ensure planning, scheduling, customer liaison and emergency management activities occur in conjunction with current procedures efficiently and effectively. Network control includes the operation of the 24/7 control room, planning and dispatch functions, asset management, engineering and technical compliance functions, the Jandakot Operations Centre, other operational depots, fleet, and equipment.

3.1.1 2020

ATCO's network operating expenditure (opex) for the year ending 31 December 2020 was \$5.1 million lower than the AA5 Final Decision forecast as shown in Table 3.1.

Table 3.1: Network Operational Expenditure (OPEX) 2020 (\$M nominal)

Network OPEX	AA5 Final Decision	Actual	\$ Variance	% Variance
Network OPEX 2020	32.6	27.6	5.1	-15.5%

The primary factor for ATCO's network opex being lower than forecast was the impact of COVID-19.

COVID-19 reduced activity and expenditure in a number of areas due to the directives that were put in place by the WA Government. COVID-19 impacts included the following:

- **Minimising contact between staff and the general public** – ATCO's response to the Government's directives resulted in a reduction in network activity due to:
 - the deferral, where safe, of operations projects and planned maintenance

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- reduction in minor unplanned maintenance activities, where safe, such as vegetation clearing, meterset painting, bridge crossing inspection and remediation, hazardous areas review and remediation
 - the deferral of repairing class 3 (small not urgent) leaks, which resulted in a decline by 30%
 - **Staffing levels** – Reduced staff as a result of a tight labour market caused by both COVID-19 effects on staff availability, as well as increased competition for staff due to the WA Government’s infrastructure spending, with many positions remaining vacant in 2020.
 - **Reduced Motor Vehicle, travel and admin expenses** – There was also reduced expenditure on motor vehicle, travel and admin expenses due to the COVID-19 restrictions that were in place.
 - **Deferral of some of the step changes** – Furthermore, the impact of COVID-19 deferred some of the step changes included in the 2020 forecast such as hazardous areas review and remediation and security of supply - pipeline patrol.

Another factor that contributed to the network opex underspend was increased efficiency achieved in pipeline survey for mains reclassification relating to the surveying of pipes on private properties by combining the survey work with other surveys being conducted in the same areas.

Pipeline inline inspections, which is a recurring activity included in the base year, were initially scheduled to occur in 2020 on High Pressure Pipeline 091 (HP091). However, this activity had to be deferred and was subsequently completed in 2021. The deferral was due to delays in receiving key equipment and site works as well as identifying a high risk of losing customers if the inspection had been carried out in winter. This risk was identified during detailed design and the outcome was a recommendation for the inspection to occur in summer conditions. This deferral contributed to the underspend in project related opex.

Reinstatement activity internalised: Reinstatement activity, which requires job sites to be reinstated, was internalised which reduced contractor costs and traffic management costs leading to further network opex underspend in 2020.

Fringe Benefits Tax savings: Outside of COVID-19 impact and increased efficiencies, was an underspend due to a reduction in Fringe Benefits Tax paid by ATCO. During 2018 the Australian Tax Office (ATO) released guidance on their views on limited private use of vehicles. To comply with these guidelines, ATCO updated the motor vehicle policy to align with ATO guidance and reduce the company’s FBT liability. The employees who were allocated vehicles were predominantly located in the Network area of the business. As a result of the revised motor vehicle policy, ATCO’s FBT expense in the Network cost category was lower in 2020 by \$0.6 million.

Table 3.2 2020 Network opex underspend drivers (\$ million nominal) details the savings that have resulted from the factors highlighted above leading to the \$5.1 million underspend in ATCO’s 2020 network opex compared to the AA5 Final Decision forecast.

Table 3.2: 2020 Network opex underspend drivers (\$ million nominal)

Network OPEX 2020	Underspend	Total Spend
AA5 Final Decision 2020 Network Forecast Opex		\$32.6
Opex Projects, planned and unplanned maintenance reduced activity – COVID-19 impact, deferrals and efficiencies gained ³	-\$1.8	
Reduced Staff compared to forecast – COVID-19 labour market impact	-\$0.8	
Reduced Motor Vehicle, travel and admin expenses – COVID-19 restrictions	-\$0.6	
Reinstatement activity internalised	-\$1.3	
Fringe Benefits Tax (FBT) Savings	-\$0.6	
Total Network Opex underspend	-\$5.1	
Total 2020 Network Actual Opex		\$27.6

3.1.2 2021

Values were within variance limits.

3.2 Corporate

Corporate opex includes the costs that are associated with enterprise-wide support functions to serve internal (and sometimes external) customers and business partners. The support functions are provided locally where the expertise and capacity exist or through our corporate support services. This includes human resources, finance, legal and regulatory, executive, administration and governance, risk and compliance, insurance, corporate affairs, marketing, and communication.

3.2.1 2020

ATCO's corporate operating expenditure (opex) for the year ending 31 December 2020 was \$1.9 million higher than the AA5 Final Decision forecast as shown in **Table 3.2** and **Table 3.3**.

Table 3.2: Corporate opex 2020 (\$ million nominal)

Corporate OPEX	AA5 Final Decision	Actual	Variance	% Variance
2020	15.3	17.2	1.9	12.3%

The key drivers in relation to the higher than planned spend are illustrated in Table 3.3 below.

Table 3.3: 2020 Corporate opex (\$ million nominal)

Corporate OPEX 2020	AA5 Final Decision	Actual	Variance
Corporate Support Costs	5.1	8.1	3.1
Licence Fees	2.7	3.4	0.7
Finance	2.7	2.1	-0.6

³ Material Opex projects deferred include projects such as Hazardous areas review and remediation, Pipeline inline inspections and security of supply – Pipeline Patrol. Efficiencies gained on Mains reclassification

Corporate OPEX 2020	AA5 Final Decision	Actual	Variance
Legal	1.3	0.4	-0.9
Other	3.7	3.4	-0.3
Total Corporate Opex	15.3	17.2	1.9

Corporate Support Costs: These costs include recharges from the Australian and Canadian head offices which provide finance, treasury, IT and HR support to ATCO.

ATCO's actual Corporate Support Costs were \$3.1 million higher than forecast in the AA5 Final Decision. This was due to:

- Maintaining a safe working environment in response to COVID-19 – \$0.4 million was spent to reconfigure office spaces to reduce the risk of exposure to critical response staff and safeguard ATCO's ability to respond to network emergencies, as well as spend on protective and sanitary supplies and extra cleaning services at all depots and offices.
- Support from Canada head office – There was an increase in the support cost allocation from Canada of approximately 1.9% to align with the ATCO group allocation methodology under the Massachusetts formula. Prior to this change ATCO benefited from an under allocation of group costs.
- Short term incentive plan (STIP) payments being \$0.9 million higher than allowed in AA5 Final Decision base year costs due to a reduction in the forecast costs by the ERA. The costs were in line with ATCO's forecast.

Licences fees Costs in 2020 were \$0.7m higher than 2018 base year costs due to an increase in both ERA GDL8 Licence charges as well as Access Arrangement charges for 2020 as charges for the ERA's AA5 review process continued to flow through.

The increases in the company expenses and licence fees have been offset by cost decreases in other areas.

Finance: Costs were reduced due to a number of vacant roles and COVID-19 causing a significant delay and disruption in filling the positions. Additionally, a larger proportion of costs from the finance function were allocated to non-pipeline services due to the WA Government's stimulus driven ramp up of non-pipeline services works. There was also a reduction in consulting fees (which can vary from year to year) not required in 2020 compared to previous years.

Legal: Costs were reduced relative to the AA5 Final Decision forecast due to a reduced requirement for legal advice, which can vary significantly from year to year. Additionally, more legal costs were allocated directly to projects outside of reference service opex due to an increase in capital project and non-pipeline services legal advice (rather than business as usual advice).

3.2.2 2021

Values were within variance limits.

3.3 Ancillary services

Ancillary services opex is the operating costs associated with providing the ancillary reference services.

3.3.1 2020

Overall ancillary services costs were \$2.0 million below forecast in 2020 with the main contributor being a \$1.0 million underspend in special meter read costs as shown in Table 3.4.

Table 3.4: 2020 Ancillary services costs (\$ million nominal)

	AA5 Final Decision	Actual	Variance
Applying a Meter Lock	0.5	0.1	-0.4
Removing a Meter Lock	0.2	0.1	-0.2
Deregistering a Deliver Point	0.3	0.4	0.1
Disconnecting a Delivery Point	0.4	0.1	-0.3
Reconnecting a Delivery Point	0.4	0.2	-0.2
Special meter reads	1.6	0.6	-1.0
TOTAL	3.3	1.4	-2.0

The variance primarily due to a reduction in the demand for ancillary services as discussed in section 2.4.

3.3.2 2021

Overall ancillary services costs were \$2.7 million below forecast in 2021 with the main contributor being a \$1.1 million underspend in special meter read costs as shown in Table 3.5.

Table 3.5: 2021 Ancillary services costs (\$ million nominal)

	AA5 Final Decision	Actual	Variance
Applying a Meter Lock	0.5	0.0	-0.4
Removing a Meter Lock	0.2	0.0	-0.2
Deregistering a Deliver Point	0.3	0.1	-0.2
Disconnecting a Delivery Point	0.4	0.0	-0.4
Reconnecting a Delivery Point	0.4	0.0	-0.4
Special meter reads	1.7	0.6	-1.1
TOTAL	3.5	0.8	-2.7

The variance is primarily due to a reduction in the demand for ancillary services as discussed in section 2.4. The slowdown in special meter reads reflects a maturing of the market as new retailers have obtained market share reducing churns.

3.4 UAFG

Unaccounted for gas (UAFG) is the difference between the measurement of the quantity of gas delivered into the gas distribution system in a given period and the measurement of the quantity of gas delivered from the gas distribution system during that period. ATCO incurs costs to purchase gas to replace UAFG.

3.4.1 2020

The AA5 Final Decision forecast UAFG expenditure of \$3.8 million for the year ended 31 December 2020. The actual expenditure for the year was \$2.3 million, a variance of \$1.5 million.

Using AEMO data to the end of April 2021, in actual activity terms the variance was a \$1.2 million decrease as shown in Table 3.6. The variance increased to \$1.5 million primarily due to accounting adjustments for UAFG in prior years because final UAFG amounts are not known until 425 days after the relevant gas day when AEMO has completed its analysis and advised the final UAFG amount in terajoules.⁴

Table 3.6: UAFG 2020

	Gate station throughput (TJ)	UAFG %	UAFG (TJ)	UAFG \$ million
AA5 Final Decision	27,493	2.45%	678	3.8
2020 Actual	27,173	1.69%	459	2.6
Variance	-320	-0.76%	-219	-1.2
Variance \$ impact	0.0	-1.2	-1.2	-1.2

The gas loss rate has improved compared to the forecast due to the cumulative impact of UAFG management initiatives such as leak repair and metering improvements. As a result of these activities, the loss rate has declined steadily and in 2020 was 1.69% which was lower than the forecast of 2.45%. This equated to UAFG expenditure being \$1.2 million lower than forecast.

Lower consumption across the network made a minor contribution to lower UAFG TJ's, specifically in the industrial (A1) and commercial (B1 and B2) tariff classes. This is largely a result of operating interruptions during the COVID-19 lockdown period and although the residential (B3) consumption was higher while people worked from home, the residential increase was not sufficient to offset the commercial and small industrial downside.

3.4.2 2021

AA5 Forecast UAFG expenditure was \$4.7 million for the year ended 31 December 2021. The actual expenditure for the year was \$3.4 million, a variance of \$1.3 million.

Using AEMO data to the end of April 2022, in actual activity terms the variance was a \$1.5 million decrease on the AA5 forecast as shown in Table 3.7. The variance decreased to \$1.3 million due to accounting adjustments for UAFG in prior years because final UAFG amounts are not known until 425 days after the relevant gas day when AEMO has completed its analysis and advised the final UAFG amount in terajoules.

⁴ AEMO provides data on the first of each month for UAFG in prior months. In May each year a "wash-up" is made for the prior calendar year using data updated by AEMO to the end of April. Analysis in the RIN is based on that data supplied by AEMO.

4. CAPITAL EXPENDITURE

In this section ATCO has provided reasons for the variance between the approved forecast and actual where the variance is greater than +/- 10% and more than \$1 million (in absolute value).

The section provides the reasons for the variance by expenditure category only where the above variance criteria is met.

4.1 Network sustaining

Network sustaining capital expenditure involves maintaining and improving the safety and integrity of services, complying with regulatory obligations, and ensuring ATCO can meet current levels of demand for services from our customers.

4.1.1 2020

In 2020, ATCO delivered \$32.3 million in Network Sustaining CAPEX compared to \$49.9 million forecast in the AA5 Final Decision. This is 35.3% less than the amount forecast in the AA5 Final Decision. The underspend of \$17.6 million is mainly as a result of reduced Mains Replacement expenditure (PVC replacement and Metallic Mains replacement) as shown in Table 4.1.

Table 4.1: 2020 Sustaining capex variance (\$ million nominal)

	AA5 Final Decision	Actual	Variance
PVC mains replacement programme	24.6	14.9	-9.7
EOL Replacement - Metallic mains (Freeways & Railways)	10.4	3.6	-6.8
Asset Performance - Meters Compliance Project	1.2	0.2	-1.0
EOL Replacement - CBD services	0.9	0.4	-0.5
Other projects	12.8	13.2	0.4
Total	49.9	32.3	-17.6

The \$17.6 million under spend in network sustaining capex compared to the amount forecast in the AA5 Final Decision in 2020 is explained below.

PVC replacement

The lower expenditure was due to:

- Scope reduction to work with COVID restrictions and reducing the need to go into homes and refocusing personnel on critical maintenance activities.
- Reduction in unit rate due to use of the insertion technique in PVC replacement resulted in cost savings in reinstatement.

The 2020 reductions in expenditure were partially offset by:

- Replacement of 1.7km of PVC mains as part of combined works with Water Corporation in Fremantle to take advantage of an opportunity to reduce mains replacement costs.

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- Reprioritising of 3.3km of PVC works in Fremantle CBD during the COVID-19 pandemic shut downs to lessen the disruption to small business and achieve cost efficiency with lower traffic management compared to doing the works at a later date.

Metallic mains

In 2020, ATCO continued to replace the remaining unprotected metallic mains using a reduced workforce. The works were carried over from 2019. Replacement of metallic mains under Freeways and Railways has been deferred to future years. It was necessary to defer the works due to the complexity involved in developing a rail safety management plan that satisfied all the relevant regulatory bodies involved.

Meter compliance project

This is an ongoing project to remediate gas meter installations that are deemed non-compliant to Australian Standards AS/NZS 4645.1, AS/NZS 5601 and the Gas Standards (Gas-fitting and Consumer Gas Installations) Regulations 1999. The AA5 Final Decision forecast included an assumption that remediation treatments would be minor involving installation of vent lines to meet Australian Standard requirements. However, the proposed remediation treatments for each site are now confirmed and the remediation treatments can vary in complexity to make the meterset compliant with Australian standards. In some cases, the remediation treatment requires full meterset upgrade, service replacement and relocation. The complexity of the treatment requires a longer timeframe to complete. This has resulted in the deferment of scope into future years, reducing the expenditure in 2020, but will increase the expenditure for the overall project.

End of life replacement - CBD services

The delay in completing the CBD service replacement program is due to difficulties in the planning phase and restrictions from the City of Perth have limited the construction to night works and off-peak times to minimise the effect on community.

Other

The positive variance in other projects is made up of 40 less significant projects with offsetting positive and negative variances. Negative variances were mainly driven by reassessment of end of life projects which indicated expenditure could be deferred. Positive variances were driven by new projects related primarily to safety assessments that found that projects such as reducing risks from electrical current and new end of life projects were required.

4.1.2 2021

In 2021, ATCO delivered \$37.2 million in Network Sustaining CAPEX compared to \$41.5 million forecast in the AA5 Final Decision. This is 10.33% less than forecast in the AA5 Final Decision. The underspend of \$4.3 million is mainly in relation to PVC Mains Replacement and Routine Meter Change under Asset Replacement. This was partially offset by the over spend in other projects such as the facility upgrade programs as shown in Table 4.2.

Table 4.2: 2021 Sustaining capex variance (\$ million nominal)

	AA5 Final Decision	Actual	Variance
PVC mains replacement programme	26.3	18.8	-7.5
Routine Meter Change	4.9	3.8	-1.1
2019 - EOL Replacement - Unprotected Metallic Mains	0.0	2.8	2.8
Other	10.3	11.8	1.5
Total	41.5	37.2	-4.3

The \$4.3 million under spend in network sustaining capex compared to that forecast in the AA5 Final Decision in 2021 is explained below.

PVC replacement

The lower expenditure was due to:

- Reduced contractor resource (service contractors) as a result of increased demand for contractor services across the WA economy largely due to the WA Government's COVID stimulus infrastructure projects. As a result, scope is carried over into 2022.
- Some of the scope in hard rock and higher density areas was deferred from 2021 to 2022. The complex work required longer planning time to ensure ATCO meets local council requirement for night works and traffic management.
- Increased use of the insertion technique in PVC replacement resulted in cost savings in reinstatement.

Metallic mains

The forecast in the AA5 Final Decision was to complete all metallic mains by the end of 2020. In 2021, ATCO continued to replace the remaining unprotected metallic mains. The 2021 works carried over from 2019 and therefore were not included in the 2021 forecast expenditure.

Routine meter change

ATCO's reduced expenditure on the Routine Meter Change program is mainly due to resource constraints. ATCO completed 80% of the forecast scope.

Other

The positive variance in other projects is made up of over 40 less significant projects with offsetting positive and negative variances. The main negative variance is the deferment of end of life replacement of the exposed pipe on Canning Bridge. ATCO was able to develop a methodology to repair the leaks on the bridge and lower the risk to ALARP status deferring the replacement into future years. This is offset by new projects to reduce electrical hazards on the assets and projects carried over from previous years.

4.2 Network growth

Network growth capital expenditure involves complying with regulatory obligations and ensuring ATCO can meet forecast growth in demand for services through expansion of the network.

4.2.1 2019

In 2019, the actual expenditure was \$6.6 million lower than forecast in the AA5 Final Decision. Reduced expenditure is due to:

- reduced expenditure for network expansion in Greenfield domestic connections,
- reduced expenditure for network extension for Commercial & Industrial (C&I) connections.

Table 4.3: 2019 Growth capex (\$ million nominal)⁵

	AA5 Final Decision	Actual	Variance
Greenfield and Brownfield Growth	24.5	19.1	-5.4
Network extension and new C&I connections	4.7	3.2	-1.5
Meter Upgrades	0.1	0.8	0.7
Other	0.8	0.5	-0.3
Customer contributions	-1.5	-1.7	-0.2
Total	28.6	21.9	-6.7

Domestic connections and network expansion

The primary driver for reduced expenditure for domestic connections and network expansion is Open Trench activities for new subdivision:

- The actual length of open trench main per new connections in 2019 was 10.1 metres compared to 11.9 metres assumed in the AA5 Final Decision.

Network extension and new Commercial & Industrial (C&I) connections

The actual expenditure for new C&I connections is on par with the AA5 Final Decision based on historical expenditure. However, the reduction in expenditure is because the majority of new connections were on line of main and didn't require network extensions. This increased the variance between actual expenditure and the amount forecast in the AA5 Final Decision for network extensions.

Meter upgrades

There was an increase in meter upgrades in 2019 following a review of meters' compliance with Australian Gas Standard, AS4645. Meters were assessed on a case by case basis and it was found more meters required upgrades than was forecast for 2019.

4.3 Information technology

Information technology capital expenditure involves IT systems at an operational and corporate level that enable ATCO to provide services to customers and more strategic initiatives such as the digital transformation of ATCO's business.

⁵ Table does not add due to rounding

4.3.1 2019

In 2019, ATCO delivered \$1.2 million in IT capex compared to \$2.2 million forecast in the AA5 Final Decision as shown in Table 4.4.

Table 4.4: 2019 IT capex (\$ million nominal)

	AA5 Final Decision	Actual	Variance
Major Upgrade Projects			
Identify & Access Management	0.1	0.0	-0.1
Human Capital Management	0.3	0.2	-0.1
GIS Upgrade	0.3	0.1	-0.2
Telephony Upgrade	0.9	0.1	-0.8
Commercial/Industrial Portal	0.1	0.0	-0.1
Major Upgrade Projects	1.7	0.4	-1.3
Business Support improvements	0.4	0.5	0.1
Continuous improvement projects	0.1	0.3	0.2
Total	2.2	1.2	-1.0

The variance in IT capex in 2019 is mainly due to deferment on four major upgrade projects from 2019 into future years:

- **Identify & Access Management:** Systems that were going to be subject to multi-factor authentication (as part of Identify & Access Management) are being upgraded or replaced over the AA5 period therefore it was deemed more efficient to combine the proposed changes to the systems with the system upgrade in AA5.
- **GIS upgrade:** Planning phase was delayed and was not completed as planned due to longer planning phase required to gather business requirements. The planning phase has been extended into 2020.
- **Telephony Upgrade:** The budget was refined during the planning phase and ATCO found a more cost effective option to upgrade the telephony system for the contact centre in 2019. The underspend in 2019 is due to additional planning required to ensure the revised project meets business requirements which resulted in delaying the implementation from 2019 to 2020.
- **Commercial/Industrial Portal:** the scope for this project was deferred and will be rolled into the 2020 program called Energised and Responsive Customer Engagement. The project deferral was due to delays in the planning phase to gather business requirements and extensive testing.

4.3.2 2020

In 2020, ATCO delivered \$2.5 million in IT capex compared to \$7.3 million forecast in the AA5 Final Decision as shown in Table 4.5.

Table 4.5: 2020 IT capex (\$ million nominal)

	AA5 Final Decision	Actual	Variance
Customer Engagement	1.2	0.1	-1.1
Network Digitisation & Intelligence	0.2	0.1	-0.1
Asset Management & Service Delivery Excellence	0.6	0.2	-0.4
Enterprise Employee Enablement	1.3	0.9	-0.4
Application Renewal	4.1	1.2	-2.9
Total	7.4	2.5	-4.9

Throughout 2020 ATCO continued to deliver IT project expenditure against its five IT programs. The underspend variance in IT capex in 2020 is mainly due to changes in project timing.

During 2020, ATCO revised its plans to focus on upgrading several critical IT applications, that became due for upgrades. 2020 was therefore focused on planning and scoping activities for the upgrade projects, rather than forecast expenditure for the implementation projects including:

- Telephony upgrade to use “soft” phones and eliminate telephony desktop hardware costs.
- Integration platform upgrade to ensure ATCO’s timesheet and payroll system meets the reporting obligations and to improve the efficiency of work practices.
- NMIS upgrade was brought forward due to AEMO requirements.
- Enterprise Information Management (EIM) Upgrade was brought forward due to the criticality of the document management system to the business. The upgrade provided the ability to build in cost saving functions such as mobile access and to ensure a supported version of the system was in place.

Application renewal for GIS and the workforce management system upgrades were deferred resulting in \$3.0 million reduction in expenditure. The two projects were deferred to make resources available for the more critical system upgrades stated above.

Additionally, there were a number of process improvements to improve and automate the customer interface such as requesting new commercial connections. There was also work required due to COVID-19 to implement Teams for remote working.

4.3.3 2021

In 2021, ATCO delivered \$7.3 million in IT capex compared to \$8.9 million forecast in the AA5 Final Decision as shown in Table 4.6: 2021 IT capex (\$ million nominal)

	AA5 Final Decision	Actual	Variance
Customer Engagement	1.0	0.0	-1.0
Network Digitisation & Intelligence	0.2	0.0	-0.2
Asset Management & Service Delivery Excellence	0.5	0.3	-0.2
Enterprise Employee Enablement	1.3	1.3	0.0
Application Renewal	5.9	4.9	-1.0
	■	■	■
Total	8.9	7.3	-1.6

During 2021, ATCO continued on from 2020's revised plan to focus on upgrading several critical IT applications that became due for upgrades and high priority Enterprise Employee Enablement projects, whilst also delivering a lesser number of application improvements than was planned in the AA5 Final Decision.

In 2021, ATCO focused on delivering key projects such as:

- Application renewal of ATCO's Geographic Information System (GIS) because ATCO's current version of the GIS is becoming an 'end of life' product version and no longer has the support of the vendors.
- Completing projects commenced in the prior year:
 - application renewal of ATCO's Integration platform to ensure ATCO's timesheet and payroll system meets reporting obligations and to improve the efficiency of work practices.
 - application renewal of ATCO's NMIS to meet AEMO requirements.
- Implemented a new Health and Safety & Risk Management system to improve efficiency of reporting safety incidents such as through the use of onsite mobile devices, improving efficiency of managing the HSE function as well as improving efficiency of compliance reporting. This was under Enterprise employee enablement program of works.

This focus on key projects deferred Customer Engagement projects and other application renewal projects such as the Workforce Management System and Human Capital Management into later years of the AA5 period.



4.4 Structures and equipment

Structures and equipment capital expenditure involves expenditure to maintain and replace fleet vehicles (e.g. heavy and light vehicles), plant (e.g. trailers, excavators, compressors) and property (e.g. facilities, depots).

4.4.1 2020

In 2020, ATCO underspent in Structures and Equipment by \$2.0 million compared to the AA5 Final Decision forecast as shown in Table 4.7.

Table 4.7: 2020 Structures and equipment capex (\$million nominal)

	AA5 Final Decision	Actual	Variance
2020 - New Depot - Malaga (Building)	1.8	0.1	-1.7
Minor Depot Capital Works	0.1	0.2	0.1
Fleet	3.3	2.8	-0.5
Plant and equipment	0.9	0.9	0.0
Other	0.0	0.1	0.1
Total	6.1	4.1	-2.0

The variance in structures and equipment capex is largely due to the deferment of building a new Depot in Malaga. Land had been purchased previously. The project has been deferred due to constraints on capital funding at least in part driven by constraints on construction activity due to COVID-19 as well as rising costs. Requirements are currently being met by the renting of a depot site. The project will be re-visited in 2022.

The underspend in fleet is due to a deferral of expenditure due to a combination of:

- Deferred expenditure on trucks. The number of trucks required is reviewed on an annual basis and the additional trucks forecast for 2020 were not required.
- A revaluation of the need to replace certain vehicles, for example, leak survey vehicles where \$0.1 million was deferred.

4.4.2 2021

In 2021, ATCO underspent in structures and equipment by \$2.9 million compared to the AA5 Final Decision forecast as shown in Table 4.8.

Table 4.8: 2021 Structures and equipment capex (\$million nominal)

	AA5 Final Decision	Actual	Variance
Minor Depot Capital Works	0.1	0.3	0.2
Palisade Fencing	0.3	0.0	-0.3
Fleet	4.9	2.3	-2.6
Plant and equipment	0.9	0.7	-0.2
Total	6.2	3.3	-2.9

The variance in 2021 structures and equipment capex is primarily due to deferment of fleet expenditure which was deferred for several reasons.

- Amendment of the light vehicle lifecycle from 5 to 6 year replacement intervals
- Deferrals due to low mileage
- Delivery delays

The next largest variance is due to palisade fencing, which was deferred pending a review of the risk to critical assets and the most efficient method to mitigate risk to an acceptable level.