ATTACHMENT 12.12 STRATEGIC DELIVERY AND RESOURCE PLAN

ATCO 2020-24 PLAN

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ACCESS ARRANGEMENT FIVE

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Table of Contents

Abbro	eviatio	ns	V
Overv	view		vi
1.	Intro	duction	1
	1.1	Purpose	.1
	1.2	Scope	.1
	1.3	Assumptions	. 2
	1.4	Organisation	.2
2.	Work	s Program	3
	2.1	Forecasting and Estimation of Projects	.4
	2.2	Capital Expenditure	.5
	2.3	Operating Expenditure	.6
	2.4	Historical Program of Works	.9
3.	Deliv	ery and Resourcing Strategy 1	11
	3.1	Introduction	11
	3.2	Annual planning process	11
	3.3	Investment governance	12
	3.4	Risk Management	13
	3.5	Functional and Organisational Arrangements	13
	3.6	Resource and external contractor management	13
	3.7	Procurement Management	14
	3.8	Continuous Improvement	15
4.	Resou	urce Plan and Analysis 1	L 7
	4.1	Resource Planning Methodology	17
	4.2	Delivery Approach - Capex	17
	4.3	Delivery Approach - Opex	19
	4.4	Key Resources	21
	4.5	Resource management to enable efficient resourcing	23
	4.6	Works Program resourcing	24
	4.7	Resource Challenges	27
5.	Concl	usion	29

LIST OF TABLES

Table 2.1: Forecast AA5 capex by capex driver (\$M real as at 31 December 2019)	6
Table 2.2: Network operating expenditure by category (\$M real as at 31 December 2019)	7
Table 4.1: Number of trainees per WP area	23
Table 4.2: Contracted activities to achieve WP levelling over AA5	24

LIST OF FIGURES

Figure 1.1: ATCO Gas Australia Organisational Structure for WP Delivery	2
Figure 2.1: Total capex and opex (totex) over AA5 including 2019 (\$M real as at 31 December 2019)	3
Figure 2.2: Total capex and opex in AA4 compared to AA5 (\$M real as at 31 December 2019)	4



10
12
15
19
21
25
26
28
28

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Abbreviations

AA4	Access Arrangement Four
AA5	Access Arrangement Five
ALSs	Asset Lifecycle Strategies
AMP	Asset Management Plan
AMS	Asset Management System
ATCO	ATCO Gas Australia
capex	Capital Expenditure
ERP	Enterprise Resource Planning
FTE	Full Time Equivalent
GDS	Gas Distribution System
HSE	Health, Safety & Environment
IGC	Investment Governance Committee
п	Information Technology
0&M	Operations and Maintenance
opex	Operating Expenditure
OPSO	Overpressure Shut-off
PIG	Pipeline Inspection Gauge
PIR	Post Implementation Review
PMM	Project Management Manual
PPM	Project Portfolio Management
SCADA	Supervisory Control and Data Acquisition
SDRP	Strategic Delivery and Resource Plan
totex	Total Expenditure
WP	Works Program





Overview

ATCO's process of outlining how to deliver the Works Program (**WP**) is continuously improving and is documented in this Strategic Delivery and Resource Plan (**SDRP**). This document ensures appropriate rigor, governance and business oversight to ATCO's deliverability plan and ensures clear alignment between ATCO's target of delivering an efficient Works Program and ATCO's internal and external resource approach.

The purpose of this SDRP is to ensure the proposed WP for the period from 2020-24 can be delivered as planned. The SDRP provides the following information based on the delivery framework and resource plan:

- A summary of the WP for the five-year period and, for further context, a brief summary of the previous five year period regarding existing resources.
- A description of our strategic delivery framework and how ATCO utilises this framework for managing internal and external resources to deliver the WP.
- A description of ATCO's internal and external resources and how ATCO utilise the delivery strategy to understand its mix between internal and external resourcing decisions.
- Evidence of our competitiveness and capability to efficiently deliver the WP against customer and key stakeholder expectations.

This document summarises the processes, systems, roles and responsibilities associated with the delivery of operational expenditure and capital expenditure programs for the Mid-West and South-West Gas Distribution System. This framework is also used to analyse the resources required to ensure the WP is delivered safely and efficiently.

The current forecast resource and delivery model is adequate to ensure safe, efficient and affordable delivery of the WP over AA5.



1. Introduction

ATCO Gas Australia (ATCO) operates the Mid-West and South-West Gas Distribution System (GDS) against its asset management system (AMS) to deliver network capital and network operating expenditure to ensure a safe, reliable, efficient, cost effective, and environmentally conscious and customer focussed natural gas distribution service. To ensure ATCO can deliver on its strategies, ATCO completes an analysis and defines the work programs (both capital and operational) to be completed, when they will be completed and how completion will be executed.

ATCO's process of outlining what and how to deliver the WP is continuously improving and as a result a newly formalised document, the SDRP has been developed. This document applies additional rigor, governance and business oversight to ATCO's deliverability plan and ensures clear alignment between ATCO's target of delivering an efficient WP and ATCO's internal and external resource approach.

1.1 Purpose

The purpose of this SDRP is to ensure the proposed WP for the period from 2020-24 can be delivered as planned. The SDRP provides the following information based on the delivery framework and resource plan:

- A summary of the WP for the five-year period and, for further context, a brief summary of the previous five year period regarding existing resources.
- A description of our strategic delivery framework and how ATCO utilises this framework for managing internal and external resources to deliver the WP.
- A description of ATCO's internal and external resources and how ATCO utilise the delivery strategy to understand its mix between internal and external resourcing decisions.
- Evidence of our competitiveness and capability to efficiently deliver the WP against customer and key stakeholder expectations.

ATCO's expenditure planning and governance processes are focused on ensuring that operating and capital expenditure is prudent and efficient. The SDRP is one of several management tools intended to support ATCO's business plan objectives to select the options and scope within the WP ensuring ATCO can deliver. Aligning the workforce plan to ATCO's capital and operational program will deliver:

- Efficient capital investment
- Improved labour productivity
- Blended resource delivery
- Efficient resource and network support costs

1.2 Scope

This SDRP summarises the processes, systems, roles and responsibilities associated with the delivery of operational expenditure (**opex**) and capital expenditure (**capex**) programs for the GDS. This framework is also used to analyse the resources required to ensure the WP is delivered safely and efficiently and in line with:

• Relevant ATCO policies and procedures



- ATCO Gas Distribution and Mandurah Gas Lateral Safety Case
- ATCO Asset Management Framework
- National Gas Rules
- Applicable Australian Standards

1.3 Assumptions

The following assumptions are applicable to the make-up of this framework and planning strategies:

- Resource modelling is derived from forecast volumes over the nominated period and compared to historic volumes and labour requirements.
- Activity costs and activity volumes are a combination of bottom-up build and alignment to internal and external forecasts.
- The workforce requirements for capital projects are derived from a bottom up cost estimate based on individual scope of works documents applied for internal and external resourcing.
- The workforce requirements for customer initiated projects are derived from historical actuals and applied to an estimated forecast based industry forecasts.
- The workforce requirements for network operations and maintenance (**O&M**) are based on latest growth forecasts, providing workforce growth based on operational area against customer or asset growth.

The above assumptions are regarded reasonable for the purpose of this SDRP.

1.4 Organisation

There are three main groups within ATCO to deliver the WP over the next Access Arrangement period: Operations; Construction; and Assets & Engineering Innovation. To support the delivery of the WP, ATCO utilises services such as: Health, Safety & Environment (**HSE**); Finance; Human Resources; Commercial Services; Supply chain & Procurement; and Regulatory as examples. The current high level organisational structure utilised to deliver the WP is as follows:



Figure 1.1: ATCO Gas Australia Organisational Structure for WP Delivery



2. Works Program

ATCO's WP for AA5 consists of a combination of capex and opex including: asset replacement capex, asset performance and safety capex, customer initiated capex, demand related capex, information technology capex, structures and equipment, and O&M. The forecast WP presented below is consistent with customer expectations and has been the subject of substantial management governance and top-down challenge.

Figure 2.1 shows the WP broken down into the above categories for Access Arrangement Five (**AA5**). The capex WP over the 5 years is \$509.3M and the O&M is \$188.7M over the 5 years totalling \$698.0M.



Figure 2.1: Total capex and opex (totex) over AA5 including 2019 (\$M real as at 31 December 2019)

The forecast AA5 expenditure is \$31.1M or 4.7% higher than the total expenditure for Access Arrangement four (**AA4**) which is forecast at \$666.9M, being \$496.0M for capex and \$170.8M for O&M. Further analysis indicates that the projects relating to the network Security of Supply (Asset Performance & Safety), IT digital transformation projects and network maintenance and network support O&M have increased, this is shown in Figure 2.2.





Figure 2.2: Total capex and opex in AA4 compared to AA5 (\$M real as at 31 December 2019)

2.1 Forecasting and Estimation of Projects

The WP is a result of internal challenge, external feedback and based on benchmarked information and independent forecasting. ATCO has met, and will continue to meet, with stakeholders to improve understanding of cost drivers and how the delivery of WP can be constantly improved through program and resource management.

ATCO recognises that accurate forecasting and cost estimation is critical for both project justification (e.g. through business cases) and meeting time, cost and quality outcomes within the project management context. Inaccuracy in cost estimation can result in incorrect approvals of projects, misappropriation of resources, economic loss, and project cost overruns.

ATCO's Project Management Manual (**PMM**¹) describes the procedures for the accurate preparation of cost estimates for all major capital projects. The PMM guides the preparation of cost estimates during the project planning phase. The project sponsor is ultimately responsible for accurate and reliable cost information that supports:

- Project justification (e.g. business cases, cost/benefit analyses)
- Ongoing cost monitoring and reporting during the project's planning, design and implementation phases; and
- Ongoing review and maintenance of cost estimation data to ensure it remains contemporary.

ATCO's estimating guideline considers the following:

1. All projects and programs are managed within as per the PMM with costs managed in the ATCO Enterprise Planning Resource (ERP) system – "SAP".

¹ Project Management Manual – Document Code: MA00001 – EIM# 85733808



- 2. Estimates, prepared on a likely cost basis with the relevant contingency per project. At various stages of the project life cycle will provide confidence in the processes of project priority, affordability and strategic fit.
- 3. Estimates are subject to a review and approval process based on consistent clear lines of responsibility and accountability that will ensure costing standards and control are applied to any budget information that is to be released.
- 4. Regular project and system reviews will be conducted to encourage and facilitate continuous improvement.
- 5. Post-completion reviews are conducted, and findings will be shared to improve future estimation activities.

2.2 Capital Expenditure

For ATCO, all capex programs are completed under the Project Portfolio Management (**PPM**) system. ATCO is committed to adopting a structured, enterprise wide approach to project management to achieve its business objectives, whilst meeting customer requirements in a safe and reliable manner.

Capital programs of work are defined in the following categories:

- Sustaining the network ('Network Sustaining'): This involves maintaining and improving the safety and integrity of services, complying with regulatory obligations, and ensuring we can meet *current* levels of demand for services from our customers. The graph classifications of asset replacement capex and asset performance and safety capex fall within this category.
- **Growing the network (***'Network Growth'***):** This involves complying with regulatory obligations and ensuring we can meet *forecast growth* in demand for service through expansion of the network. The graph classifications of customer initiated capex and demand related capex fall within this category.
- Information technology (IT): This involves IT systems at an operational and corporate level that enable us to provide services to customers and improve the quality of that service through more strategic initiatives such as the digital transformation of our business.
- **Structures and equipment:** This involves expenditure to replace fleet vehicles (e.g. heavy and light vehicles), plant (e.g. trailers, excavators, compressors) and property (e.g. facilities, depots).

During the AA5 period, ATCO proposes to invest \$509.3M of capital which is \$13.3M (2.7%) above expenditure projected to be incurred during AA4. Table 2.1: Forecast AA5 capex by capex driver (\$M real as at 31 December 2019)

provides a summary of our forecast capex over AA5, with a breakdown of expenditure on major programs and other capex programs.

The major projects included in AA5 is the security of supply program and Supervisory Control and Enhanced Data Acquisition under asset performance and safety. The security of supply projects are to ensure reliability of the gas supply to existing customers. There are three discrete projects involving the installation of new infrastructure such as new high pressure mains and modification to existing pressure regulating stations.

Other projects that contribute to the increase in CAPEX includes the PGP Interconnections projects and inline inspection of 5 high pressure pipelines. These are discrete CAPEX projects within AA5 and therefore there is no ongoing capex once they are complete.

CATEGORY	2020	2021	2022	2023	2024	TOTAL
Network Sustaining						
Asset Replacement	34.6	37.7	40.4	37.3	38.1	188.0
Asset Performance & Safety	22.3	15.6	15.4	20.4	14.5	88.1
Network Growth						
Customer Initiated	32.8	34.0	34.4	35.0	36.4	172.6
Demand Related	1.0	0.1	0.5	-	0.1	1.7
Information Technology	7.4	8.8	6.4	5.5	8.0	36.1
Structures & Equipment	5.3	6.0	3.2	4.1	4.3	22.8
TOTAL	103.4	102.2	100.4	102.2	101.3	509.3

Table 2.1: Forecast AA5 capex by capex driver (\$M real as at 31 December 2019)

In the next access arrangement period, ATCO is proposing additional IT expenditure compared to AA4. The initiatives include upgrading and expanding existing IT systems, with more strategic requirement to explore new opportunities for the digital transformation of our business. Benefits to customers include:

- Enhanced features to our Commercial Customer Portal, enabling secure access to relevant customer and project information anywhere, anytime. This program will also extend the Commercial Customer Portal to other customer segments and provide residential customers with self-serve capabilities.
- Streamlining the customer request processes through automated workflows, and the automation of procurement and contract management processes.

The increase in CAPEX is offset by the decrease in Structures and Equipment. There is expenditure in AA5 to complete the Balcatta depot and there are no other depots forecast for next access arrangement period.

2.3 Operating Expenditure

ATCO is forecasting to spend \$188.7M for Network operations and maintenance expenditure in AA5. This is ATCO's bottom-up forecast of expenditure and aligned to the budgeted WP. This forecast is what determines ATCO workforce and resourcing requirements in AA5. These network operating costs include all information technology (**IT**) costs associated with operating the network. This is a change from the classification in AA4 where business IT was reported on a separate line item. This change facilitates more accurate cost management and accountabilities within departments.

ATCO's forecast expenditure in the areas of facilities maintenance, systems monitoring and customer service are largely consistent each year. However, expenditure on network support and network maintenance increase over the AA5 period. The average annual expenditure in AA5 is \$37.7M compared to an average annual expenditure of \$31.1M during AA4.



Table 2.2: Network operating expenditure by category (\$M real as at 31 December 2019)

CATEGORY	2020	2021	2022	2023	2024	TOTAL
Facilities maintenance						
Systems monitoring						
Customer service						
Network support						
Network maintenance						
TOTAL						

The increases to Network Maintenance and Network Support are related primarily to the activities outlined in the following section.

2.3.1 Supervisory Control and Enhanced Data Acquisition

ATCO plan to further optimise the network through remote control of capacity management and enhanced data acquisition on additional assets. The additional assets installed as part of this program require both capex and opex to ensure they are maintained and operated to their intended design specifications.

ATCO proposes to develop greater efficiency within our network through enhanced supervisory control and data acquisition (**SCADA**); a control system architecture that improves the ability to:

- monitor, gather, process, and control real-time network data from local or remote locations;
- introduce remote control on isolation valves, introduce remote pressure control to improve network risk management and lower costs through reducing future UAFG and capex costs;
- improve gas quality management systems, thus increasing network safety and reducing UAFG; and
- record valuable network data for analysis, including optimising future growth and reinforcement of the network.

The expenditure ensures the coverage of operational and information technology costs (one-off and ongoing), licencing, and ongoing support from third-party vendors.

2.3.2 Additional Leak Survey

This scope will include leak surveying at the location of the meter, as the below ground assets are potential leak points due to conditions such as age, installation type and environment. The expansion commenced in 2018 and will further expand in 2019 and into AA5 with the inclusion of meter positions in high-density community use locations², city centre, commercial, and residential areas.

The addition of these locations was identified as part of the formal safety assessment process as required under the Gas Standards³. The main Australian Standard⁴ for gas distribution prescribes the requirement to complete a formal safety assessment to understand the risk and associated controls to manage leaks. This assessment proposed further action to satisfy our Safety Case⁵ and Australian Standard

² High-density community use locations include areas where buildings of four or more storeys are prevalent, major shopping centres, schools, hospitals, aged care facilities, and major sporting and cultural facilities. Public infrastructure (e.g. roads and railways, trafficable tunnels) in direct proximity of the high-density community use area is also deemed to be part of the high-density community use area.

³ As per Gas Standards (Gas Supply and System Safety) Regulations (GSSR) 2000 (Part 4 — Distribution system safety)

⁴ AS/NZS 4645.1 Gas distribution networks - Network management

⁵ ATCO Gas Australia, *Gas Distribution System Safety Case*, December 2017



requirements. The formal safety assessment was informed by benchmarking best practice across Australia, historical leak data, and additional leak survey trial information.

2.3.3 Parmelia Gas Pipeline interconnections

Increase the security of supply within our network by adding offtake facilities (gate stations) to the Parmelia Gas Pipeline. These facilities will maintain the supply of gas to the metropolitan network in the event of an emergency supply shortage from the Dampier to Bunbury Natural Gas Pipeline.

The proposed new gate stations require regular maintenance to ensure the facilities are operating according to their design specification. We will support the ongoing operation and maintenance of the new gate stations within Rockingham (2020), South Metro (2021), and North Metro (2022).

2.3.4 Pipeline inline Inspections

High-pressure steel pipelines require internal inline inspections as prescribed in Australian Standards undertaken in line with the Gas Standards. ATCO highlighted internal inspections as an important risk control, forming part of pipeline integrity management plans.

This activity includes modifications to pipelines to enable internal inspection via a pipeline inspection gauge (**PIG**). Pipeline inspection through intelligent 'pigging' allows detection of internal or external anomalies or pipe wall material loss. Major gas pipelines are inspected at a determined frequency (typically every ten years) as per the standard industry practice. The pigging of major pipelines continues in AA5 after successful project completions in AA4.

2.3.5 Hazardous Areas Review and Remediation

An external Gas Distribution System Safety Case audit was conducted in 2017 as part of our requirements of maintaining our safety and operating plan in conjunction with Australian Standards. The audit proposed a review and subsequent improvement relating to telemetry and electronic equipment located within the vicinity of gas containing assets.

To ensure higher priority non-compliant equipment was rectified within the required timelines, work commenced in 2018. ATCO plan to complete this project in 2022, with the opex including re-design costs, consultancy fees, and remediation of existing facilities.

2.3.6 Mains reclassification

The Australian Standard⁶ definition for services has been updated based on volume. As a result, ATCO have re-defined the criteria for mains and services and identified approximately 6,000 locations where mains require updating to be available within the gas network information system.

This project commenced in AA4 on a prioritised basis and will be completed in 2022. ATCO will continue the project for the remaining AA4 period to ensure compliance with the new definitions within a reasonable timeframe.

2.3.7 Asset sampling & testing

This project is aligned with the PVC mains replacement project. This requirement is not dependent on the outcome of that project; however, it is linked and will inform further asset replacement decisions for current and future forecasting.

⁶ Australian Standard 4645.1:2018 "Gas Distribution Networks – Network Management"



2.3.8 Third-party damage prevention

To meet new Australian Standard requirements, further resourcing is required to continue ATCO's proactive message of safety around gas assets and ensure continued network reliability as valued by customers. ATCO continues to invest resources in prevention mechanisms such as DBYD, external locators, and increased network monitoring. With a larger network footprint however, there is an increased risk of third party damage that requires mitigation. The proposed expenditure relates to mitigating security of supply risks; including additional pipeline patrols, increasing numbers, and training of external high-pressure locators, and further collaboration with our industry partners including DBYD.

2.3.9 Additional vegetation clearing for Bunbury & Busselton

Due to environmental considerations, ATCO is conducting vegetation clearing and further studies in the Bunbury & Busselton region due to the increase in pipelines and changes in the Department of Environment considerations.

2.3.10 Condition assessment and data gathering in the Perth CBD

Limitations in some of the data relating to the condition of the gas network in the Perth CBD has been highlighted as a risk as part of ATCO's risk management process. ATCO are gathering further information as part of this expenditure to remediate the defects and non-compliant installations in these locations.

2.3.11 Overpressure shut-off devices maintenance

Overpressure shut-off (**OPSO**) devices require approximately 50,000 additional minutes of activity per year. Unit rates for this activity have increased by approximately \$56 per unit of maintenance.

2.3.12 Additional personnel

The following personnel are required due to growth and geographical distribution:

- New Innovation Projects team to support the changes to customer engagement along with research and development projects such as the Jandakot Energy Hub.
- Additional Drawing Office Personnel to support the increase in the WP in AA5 including specific projects such as Hazardous Areas Remediation and SCADA Systems and Infrastructure.

2.4 Historical Program of Works

The last decade has seen a sustained effort in the ongoing maintenance, capacity, replacement and growth of the GDS. There has been a steady, underlying demand related to the maintenance of the network, with an increase in activity since 2012 as measures were taken to improve the maintenance culture of the organisation. This change in culture was introduced through a concerted strategic asset management effort by ATCO to build a shared view of the importance of planning and delivery of the maintenance and replacement activities.

In the same period, network capital increased significantly, with expenditure peaking in 2018 as ATCO seeks to address:

- Asset lifecycle management
- Compliance with safety, environmental and infrastructure security standards
- Demand for customer connections; and
- Growth in a peak demand period.



Efforts were also made during this period to improve both the robustness of our planning and investment governance decision making processes.

To evaluate the forecast WP for AA5, it is important to look back on ATCO's delivery of the AA4 WP as an efficient and prudent operator. Figure 2.3 presents the WP from 2014 to 2019⁷ and shows the differences in the categories given previously. The O&M category represents all costs associated with operating the network including the resultant IT costs that were historically reported within the IT expenditure category. This change in classification aligns historical costs with classifications for the AA5 forecast where all direct IT is reported as part of network and corporate costs to ensure accuracy and accountability of these operating functions.

Figure 2.3 represents the increase in activities (and thus expenditure) in the latter half of the period. ATCO will look to sustain this level of expenditure with variances based on activity type and forecasted growth. ATCO has built a level of experience and knowledge over many differing projects with this information and efficiencies gained flowing into our forecasted WP.





*Note: Expenditure in 2014 relates to July to December only (half year)

⁷ Remaining 2018 and 2019 are forecasted based on remaining activities and forecasted growth

ATCO

3. Delivery and Resourcing Strategy

3.1 Introduction

This section describes ATCO's internal processes and organisational arrangements to ensure ATCO's WP is delivered and managed efficiently. To enable the strategic delivery of the WP, ATCO must ensure:

- planning and governance processes are robust;
- project management systems support target time, quality and cost outcomes;
- functional and organisational arrangements are aligned to the program;
- delivery aligns to customer expectations; and
- lifecycle costs, operational maintenance and continuous improvement are fully supported through business as usual activities.

3.2 Annual planning process

ATCO's annual planning process is shown in Error! Reference source not found. and includes:

- Setting/updating the corporate strategy, business plan and objectives.
- Updating the Asset Management Plan (AMP) and Asset Lifecycle Strategies (ALSs).
- Construction of the investment portfolio (projects and programs) in order to achieve the business plan objectives, within the context of the asset management plans and strategies.
- Governance of the portfolio by the Investment Governance Committee (IGC) and of individual investments by steering committees and sponsors.
- Monitoring, assessing and rebalancing of the portfolio by the IGC over time, as required.
- Use of the PMM by project managers, to manage the execution of projects/programs within the portfolio. This includes ensuring project objectives are met and related benefits are realised, through the completion of benefits realisation evaluations.



Figure 3.1: Annual planning process



For more information on the annual planning process, refer to Investment Governance – An Overview⁸.

3.3 Investment governance

ATCO's investment governance practices include systems, structures, policies, processes and resources employed to address ATCO's investment responsibilities and ensure alignment between ATCO's corporate strategy, objectives and its investments.

Important components of investment governance at ATCO are outlined in Investment Governance – An Overview⁹. Further detail on some of these components is outlined in the following sections.

9 Ibid

⁸ Investment Governance – An Overview – EIM# 96784645





3.4 Risk Management

Management of risk plays a critical role in the delivery of ATCO's AA5 capex and opex programs. ATCO's Risk Management Framework¹⁰ governs the risk management approach and adheres to relevant Australian Standards. The Risk Management Framework ensures that all material risks are identified, assessed and managed, recognising that the total elimination of risks is unachievable. The framework aims to ensure that ATCO's approach to management of risks is consistent across the organisation, and guides the WP and asset management activity.

The framework sets out ATCO's risk management process, which is a forward-looking assessment process based on the International Standard for Risk Management – Principles and Guidelines (ISO 31000:2009). The risk management process is used to identify risks the business faces and the severity of those risks in the context of delivery to strategy through the achievement of business objectives. ATCO's risk management process is embedded into the planning and decision making processes at all levels of the business to ensure the WP is delivered efficiently.

3.5 Functional and Organisational Arrangements

ATCO organisation and functional arrangements are centred on enabling prudent and efficient WP delivery with the objective to guide continuous improvement and increased collaboration. ATCO's organisation structure seeks to maximise operating efficiency through a divisional organisation structure. This structure permits the pooling of resources which leads to more cost efficient and responsive work teams, better benefits from continuous improvement initiatives and the ability to maintain an agile resource to support the WP. Functional support assists operational divisions through the provision of specialised HR, HSE, Finance and Supply knowledge.

This approach increases collaboration across the business and enables scalability with the key components including:

- Co-ordinated policies, business procedures, processes & systems.
- Standardised processes and documentation to be utilised where consistency enables efficiency.
- A centralised procurement team to achieve economies of scale.
- Centralised network operations division to utilise resources efficiently across different projects and work streams.
- Guidance of strategic Asset Management and Engineering departments to oversee and manage the 12-month rolling program of works.

3.6 Resource and external contractor management

Labour costs represent a significant proportion of the cost of delivery of WP. To ensure that ATCO can meet the WP's resourcing requirements, it has adopted the following management practices for internal and external human resources to drive cost efficiencies where possible. These include:

The adoption of 'Panel arrangements' with a select panel of preferred employment agencies with pre
agreed terms and conditions that can meet ATCO's resource requirements for permanent and casual
staff.

¹⁰ Risk Management Framework – EIM# 96376528



- Dedicated staff within the HR function responsible for identifying, contracting and induction of new employees.
- Online resource request functionality to improve request processing time and on boarding of new resources.
- Panel arrangements with pre agreed terms and conditions for Engineering and Legal services that can supplement ATCO's internal capability during peaks in workload.

Also, ATCO is currently evaluating contractor management software to enable:

- Pre-qualification of contractor information such as health and safety systems, licences, insurances and other requirements.
- Online training and assessment.
- Job tracking and post job evaluation.
- Performance reporting.

This system is expected to be implemented by the commencement of AA5.

3.7 Procurement Management

Sound procurement planning and management practices are important factors for ATCO's WP as they lead to greater efficiency; higher quality project and program delivery, and reduced risks. Procurement management involves defining requirements with WP stakeholders, analysing supply market information, assessing supply risks and defining an appropriate procurement strategy to meet the business requirement.

At ATCO, procurement is managed via a centre-led Supply chain model to ensure alignment, scale benefits, consistency and efficiency. ATCO's external spend is governed by the Procurement Procedure¹¹ for managing day to day activities. The Procedure is maintained and coordinated through ATCO's Supply chain & Procurement function. This function identifies procurement opportunities by periodic consultation with the delivery teams to identify new requirements and also undertakes reviews of ATCO's spend data for identifying procurement opportunities that can benefit from combined demand volume and longer term commercial arrangements.

The Procurement procedure operates on several governing principles such as:

- Adopt a value for money approach
- Uphold ATCO's ethics and Code of Conduct
- Promote ethical business practice
- Consider health, safety, security and environmental impact
- Ensure risk management is inherent throughout the procurement process
- Promote diversity and equal opportunity
- Ensure goods and services intended for use or directly associated with our operating assets meet technical specifications and are approved prior to purchase
- Ensure adherence to relevant legislative, regulatory and internal policy requirements.

Supply chain & Procurement function leads the use of a best practice procurement and contract management process as outlined in Figure 3.2.

¹¹ Procurement Procedure – EIM# 96807571





Figure 3.2: Strategic Procurement and contract management process

3.8 Continuous Improvement

The efficient delivery of the WP relies on ATCO utilising its resources in an efficient and prudent manner. Opportunities for improvement in delivering the WP are identified, assessed and implemented across ATCO as appropriate, through a combination of monitoring of works delivery, budget control and feedback from various stakeholders including post completion studies based on major and minor projects. Continual improvement is regarded as an ongoing iterative activity, with the ultimate aim of delivering the organisational objectives. ATCO has established, implemented and maintains processes for determining opportunities and assessing, prioritising and implementing actions to achieve continual improvement and reviewing their subsequent effectiveness.

ATCO actively seeks and acquires knowledge about new technology and practices, including new tools, techniques and work methods that are evaluated to establish their potential benefit to the organisation and incorporated into the business as appropriate. ATCO views technology as an enabler of positive change, however focusses on personnel to deliver and contribute to ATCO's value as an energy provider

Continual improvement is achieved by regularly evaluating the performance of the programs of work and projects the objectives, targets and performance criteria for the purpose of identifying and prioritising opportunities for improvement and implementing appropriate action. The improvement actions taken are those that increase the effectiveness and efficiency of the activities and processes to provide added benefits to both the organisation and its customers.

Projects and programs of work are targeted for completion to deliver the best outcomes for the business and its customers, for example:

- replacement expenditure for critical assets is timed efficiently to manage the risk of asset failure
- reinforcement projects are typically delivered prior to winter in order to reduce the risk of loss of supply or
- related work programs are combined to maximise the opportunity for productive efficiency. This includes ATCO working with its utility partners to achieve better economies of scale.





ATCO's SDRP is optimised to ensure that an appropriate balance between the needs of the network and customers and costs are balanced. The optimisation process therefore takes into account the following key factors:

- Alignment of projects at the similar locations to conserve resources
- Optimise seasonal variations in activity delivery, for example Pipeline direct current resistance surveys should be aligned to months of more rainfall
- Project lead time, including:
 - Network reliability implications for large projects and required isolation, and
 - Timely identification and acquisition of land and easement requirements.
- Improve the planning and control of projects by:
 - Integration, refinement of costs and feedback in the planning phase
 - Refining the specification of the scope of future projects
 - Continue to develop engagement process for Involving the project manager in projects at the earliest opportunity
 - Streamline project timing
- Continue to monitor quality control during the construction phase of significant and complex projects by:
 - Using dedicated ATCO supervision on site during the majority of work
 - Carrying out audits of activities
- Refine the Post Implementation Review (**PIR**) process to identify innovation and learning opportunities to improve the productivity and efficiency of future projects.



4. Resource Plan and Analysis

To deliver the planned opex and capex work programs, ATCO must ensure the right resource delivery model and ensure that resources are available and aligned to the types of activities to be completed. A significant component of resources is ATCO's internal workforce and so ATCO continually monitors and assesses their workforce deliverability to ensure efficient and prudent operations at all times. For AA5, ATCO have taken a longer term view on resource assessment considering the following key factors:

- the capability and characteristics of our existing workforce
- the type of work within our capex and opex programs (e.g. including scale, complexity, risk)
- internal and external labour rates
- the market supply of relevant labour
- existing human resource support functions (e.g. training, procurement, contract management).

As outlined in Section 2, our proposed WP delivery increases over AA5. The resource demands as part of this program are analysed as part of this section. ATCO have taken a blended view of resourcing (internal and external) to ensure a safe, reliable, environmentally sustainable, customer focussed and cost efficient gas distribution service.

This following sections identify the capacity of our existing workforce and how further resources (internal or external) will be utilised.

4.1 Resource Planning Methodology

ATCO assess resource planning in two ways:

- 1. A bottom-up assessment of resources required to deliver the five year WP derived from project and activity estimations (resources per project).
- 2. A top-down management assessment based on current and historical resources with estimations on future delivery demands.

For specific projects, an assessment of the proposed scope and delivery requirements are used to determine the level, make up and timing of the resource requirements by skill type. For projects of a routine nature, the assessment is made on an overall average job requirements basis, and resources are determined on a job type basis.

4.2 Delivery Approach - Capex

Figure 4.1 demonstrates the mix of resources that ATCO plans to employ for the 2020-24 period, compared to the final year of AA4. This breakdown shows ATCO's capital expenditure by internal resources, long term contracts, tender contracts and materials. The resources employed to deliver IT capex are shown separately given that these are largely outsourced to specialised service providers.



Figure 4.1: Total annual capital expenditure over AA5¹² (\$M real as at 31 December 2019)



The following section explains the resource categories listed shown in Figure 4.1.

4.2.1 Internal labour

This category relates to staff employed directly by ATCO, largely in permanent positions although some fixed term roles exist. ATCO relies on internal staff to supervise all capex works across both the project and variable volume activities. The values in Figure 4.1 represent the cost of the time that staff directly timesheet to projects and activities as well as the cost of staff who provide indirect support to the network. As summary of the number of internal staff required to resource the capex program is discussed in Section 4.6.1

The internal labour component of ATCO's resource plan is stable over the 2020-24 period. Although it is worth noting the step in 2019, where the component of internal labour is 29% of total capex. This is due to ATCO employing a number of new roles in 2019 to ensure the appropriate levels of training and team integration ahead of the escalated level of capex in the first year of AA5.

There is also an increase in the proportion of internal labour in 2022, this is due to an 8% increase in asset replacement programs from 2021 to 2022, largely due to scope increase in PVC mains replacement and end of life replacement of one Pressure Reductions Station (PRS). This results in the need for additional supervision by ATCO staff, hence additional reliance on internal labour.

¹² Includes entire capital works program in AA5 (i.e. includes fleet, IT, structures, etc.)



4.2.2 Long term contracts

Long term contracts represent resources provided by subcontractors under long term agreements. This includes contracts for new mains, replacement mains, services, meter replacement and common trench work. The portion of capital expenditure delivered by long term contracts resources is consistent each year given that subcontractors are mainly used for variable volume work and so the level of resourcing closely follows the profile of variable volume expenditure.

4.2.3 Tender contracts

This section relates to resources provided by external parties predominantly on discrete projects. The increase in tender contracts in is attributed to the security of supply contracts in Caversham, Bunbury and Two Rocks projects which peaks in 2020 and 2023, installation of pigging infrastructure and replacement of PRS. These three project categories utilise a high proportion of ATCO's tendered contract labour accounting for 67% of the total tender contract expense in AA5.

4.2.4 Materials and other

This section includes material, equipment and other non-labour resources for all projects and variable volume activities. These costs remain stable as a proportion of total capex over the AA5 period.

4.3 Delivery Approach - Opex

Figure 4.2 show the breakdown of network O&M according to the resource categories: internal labour, long term and tender contracts and materials and other.





¹³ Includes all expenditure relating to network operating expenditure including associated IT costs



The following section explains the resource categories listed shown in Figure 4.2.

4.3.1 Internal labour

Key internal resources are maintained within network operations to ensure strategic works and program control services can be sustained. These resources include field personnel that undertake recurrent, non-recurrent and emergency maintenance services, provide installation services for strategic capex projects and provide site supervision, testing and commissioning services for the capex program. The retention, refreshment and enhancement of the maintenance, installation and supervisory and testing skills within the business are considered essential to ATCO's future success. Maintaining a relevant internal workforce enables cost control and efficiency that leads to a safe, reliable and affordable natural gas service. As summary of the number of internal staff required to resource the O&M activities is discussed in Section 4.6.2.

4.3.2 Long term and tender contracts

Subcontractors provide resources and services for between **Constitution** of network opex and perform duties such as Traffic Management, Reinstatement and assisting internal operations personnel to achieve programs of work on a project by project basis or high volume activity. Routine, high volume work can be issued to contractors and ATCO achieves low cost rates accordingly (where relevant). Due to the nature of opex activities, reinstatement and traffic management are high costs relevant to activities such as leak repair. Due to most of these activities being in populated areas, infrastructure such as roads and footpaths present challenges for reinstating completed works and keeping on-site personnel safe from vehicles.

4.3.3 Materials and other

This section relates to all consumables and other non-labour expenses incurred while operating and maintaining the network. This remains stable each year over AA5 due to similar tasks performed on an annual basis. O&M is made up of preventative, corrective and reactive maintenance with only corrective and reactive maintenance utilising large amounts of material and other. ATCO is maintaining our vigilance against third party damage thus reducing damages and associated expenditure. ATCO is at the forefront of technical solutions enabling safer and faster activities to effect repair, assist maintenance crews and reduce procurement costs. This ensures material and activity costs remain consistent.

Figure 4.3 categorises the resources considered according to the type of activity performed by the business. This clearly shows ATCO's focus on network maintenance and associated network support activities, as discussed above.



Figure 4.3: Total annual network operating expenditure¹⁴ (\$M real as at 31 December 2019)



4.4 Key Resources

4.4.1 Personnel

The resource model provides for both internal and external resources to deliver the capex and O&M WP. Key internal resources are maintained within network operations to ensure strategic works and program control services can be sustained. These resources include field personnel that undertake recurrent, non-recurrent and emergency maintenance services, provide installation services for strategic capex projects and provide site supervision, testing and commissioning services for the capex program. The retention, refreshment and enhancement of the maintenance, installation and supervisory and testing skills within the business are considered essential to ATCO's future success.

Resource planning is based on current and future skill requirements for the delivery of a sustainable WP. Other factors considered in resource planning include:

- The inclusion of the recruitment and training of professional, engineering, technical and field
 personnel to match forecasted changes in resource level due to retirements and other departures,
 and to cover ongoing changes in operational and project delivery activities. The internal resource plan
 also considers changes in requirements expected through the plant and equipment renewal
 programs, and general changes in technology.
- The assessment of principle contractors having the depth, skill and knowledge to deliver the required WP based on specific activity forecasts (as aligned to the WP in Section 2).

The following sections are general summaries of personnel responsibilities in delivery of the WP.

¹⁴ Includes all expenditure relating to network operating expenditure including associated IT costs



4.4.1.1 Management

AGA Operational management ensures ongoing compliance to ATCO's Safety Case and Gas Utilisation Inspection Plan as well as strong focus on operational governance. The oversight by AGA management ensures alignment with the WP financial targets is paramount while seeking opportunities to drive efficiency and ensuring a culture of continuous improvement at both at an operational and business level.

4.4.1.2 Supervisors

Supervisors provide onsite management and steering to staff and subcontractors executing the WP. It is the responsibility of the supervisor to execute the planned activity as designed and provide direction to those performing onsite work while observing all safe work policies and procedures. These frontline leaders are the first line of contact for identifying issues which, if not addressed, could lead to undue safety, financial, customer engagement or operational risk exposure.

4.4.1.3 Field Personnel

Field personnel are responsible for installing, extending, repairing and maintaining ATCO's network in line with the planned works program, across residential, commercial and industrial areas. Field personal operate under the supervision of senior staff (Supervisors) and are required to comply with ATCO's safety and operating policies and practices.

4.4.1.4 Network Support Personnel

ATCO ensure the WP delivery through strong planning and scheduling principles. The personnel involved in planning, scheduling and issuing activities include: Control Room, Call Centre, Operational and Construction Planning, Gas Inspections Administration, Asset Services, Engineering Services, Technical Compliance and Technical Services that includes ATCO's training department.

Network support personnel are specific to operations, project delivery and maintenance of the GDS. The different teams ensure that work is planned and approved, scheduled and programmed within specific timeframes and carried out as per the plan aligned to the WP.

4.4.1.5 Corporate Support Personnel

ATCO have a number of support areas that ensure the efficient and safe delivery of the WP. These areas include, Finance, Commercial Services, Health Safety and Environment, Commercial Services, Regulatory, Corporate Affairs, Customer Engagement and Marketing.

The areas ensure appropriate communication to key stakeholders and decision makers and carry out analysis and reporting to enable robust decision making and good governance.

4.4.1.6 Trainees

ATCO's trainee programme recommenced in 2018 where ten new staff were employed across various areas of the business. **Constant and and capex** categories. ATCO's two-year trainee program involves a combination of structured course work and practical on-the-job skills development. Trainees who successfully complete the course will earn a Certificate III in Gas Industry Operations and will be qualified to work as a Gas Distribution Officer.



Table 4.1: Number of trainees per WP area

CATEGORY	2020	2021	2022	2023	2024
Network Sustaining					
Asset Replacement	3.0	3.0	3.0	3.0	3.0
Asset Performance & Safety	-	-	-	-	-
Network Growth					
Customer Initiated	3.0	3.0	3.0	3.0	3.0
Demand Related	-	-	-	-	-
Information Technology	-	-	-	-	-
Structures & Equipment	-	-	-	-	-
0&M	3.8	3.8	3.8	3.8	3.8
TOTAL	10.0	10.0	10.0	10.0	10.0

4.4.2 Property, Materials, Plant and Equipment

Planning for the supply of materials and equipment for the capex program is carried out based on lead time of materials, the WP delivery schedule and the aging profile of equipment. The data within the enterprise resource planning (**ERP**) tool (SAP) is used to coordinate the manufacturing and delivery requirements with suppliers. Materials and equipment required for capex projects are then purchased on a specific project basis to ensure that timing and specification details are met. Materials for O&M are managed based on an inventory model to ensure adequate resources are available.

Orders based on set timeframes are established with suppliers of major recurrent type items. These commercial arrangements are determined through a tender process where the items are contracted under an agreed pricing basis to ATCO's specification and performance standards, as well as defined commercial terms.

ATCO manages procurement in an integrated strategic global supply chain resourcing model where appropriate. Alignment of supply agreements will continue where a benefit can be obtained, however a number of local agreements will remain in place over the long term due to the structure of supply markets.

4.5 Resource management to enable efficient resourcing

Ensuring efficiency of resourcing is a key component of the Delivery Framework. This section discusses the following aspects of the resourcing approach for the WP:

- internal and external resourcing
- competitive tendering
- materials and services procurement

4.5.1 Internal and External Resourcing

ATCO assigns internal resources to targeted replacement, growth activities coupled with routine works to ensure the efficiency and balance of the internal resourcing capability and capacity. Works not allocated internally are issued to key contractors, panels and tenders. This model enables ATCO to efficiently allocate internal resources to the program requirements and utilise external resourcing where balancing of the program of works is required.



4.5.2 Use of External Resources

ATCO utilises contractors to augment the existing internal resources, enabling ATCO to perform a number of once-off or specialist tasks as well as achieving project economies of scale. While many maintenance activities are considered a core skill to be retained within the business, external contractors are used to deliver a range of maintenance activities. Table 4.2 provides the activities that contractors assist ATCO to complete the WP.

Activity Category	Activities			
	Bridge Inspections			
Notwork Maintonanco	Security and Fire Suppression Systems			
Network Maintenance	Inline Pipeline Inspections (Pigging)			
	Meter Reading			
	New mains and services			
	Meter Replacements			
Network Capital	High Pressure Pipeline installations			
	Civil and building works			
	Design and engineering services			
	Non-destructive civil construction activities			
	Traffic Management			
Common Activities	Reinstatement			
	Recruitment services			

Table 4.2: Contracted ac	ctivities to achieve V	NP levelling over AA5
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4.5.3 Services procurement

ATCO employs a strategic framework and matrix that ranks work tasks based on their complexity and risk. Specialist and high risk work of an ongoing nature such as large commercial and industrial meter upgrades would remain as an ATCO internally delivered activity whereas standardised lower risk work is outsourced. ATCO has established competitively tendered panel of contractors for the delivery of defined scopes of work. ATCO also employs competitive tendering for the delivery of major projects and high volume and high geographic concentration work of its delivery program.

The competitive tendering process achieves optimal project cost control by engaging the market to ensure the most commercially and technically acceptable solution is implemented.

4.5.4 Materials Procurement

ATCO will periodically review its existing material supply arrangements which have successfully supported the delivery of previous programs. ATCO sources its materials from a number of suppliers (including both local and international manufacturers) to standards approved by the Technical services department. ATCO contractors are bound to purchase materials from the same approved list of suppliers to ensure consistency and adherence to standards. ATCO also explores opportunities to seek cost efficiencies by working with its key contractors on the material purchases.

4.6 Works Program resourcing

This section provides an assessment of resource demand against the forecast WP, which identifies the available internal resources and where overflow resources will be utilised. The overall resource



requirements were collated for the duration of the WP on a specific activity basis for both the specific projects and the routine program components. During the WP development process, some opportunity was taken to allow for levelling of labour resource demand, however, more detailed management of resource timing would be possible during the WP delivery.

4.6.1 Workforce Plan Aligned to Capex

Figure 4.4 shows the internal workforce aligned to the forecast capex in regards to internal full time equivalent (**FTE**) personnel required.

Figure 4.4: ATCO Internal Labour Full Time Equivalent (FTE) Summary by capex category



Overall FTE numbers remain largely stable over AA5, particularly in the first three years.

Staff allocated to demand capex and structures and equipment remain relatively stable throughout AA5 at an average of the state of the

Staff allocated to customer initiated capex remain relatively stable up to 2023 and increase in staff in the later years to support the forecast new connections as per demand forecast.

Staff allocated to asset replacement is relatively constant with a once off increase in 2022 for construction support in EOL replacement of PRS.

Staff allocated to asset performance and safety capex are consistent in the first three years of AA5 to provide design and supervisory support to projects such as:

- PGP interconnection (asset performance and safety),
- Installation pigging infrastructure (asset performance and safety),
- Security of supply (asset performance and safety),

The decline in the final two years is reflective of the completion of projects.



4.6.2 Workforce Plan Aligned to O&M

Figure 4.5 shows ATCO's internal resources committed to network O&M activities. There is a steady increase across all functions throughout AA5 with between three to four FTE added each year. The steady increase reflects ATCO's resource level changes as a result of network growth and the relevant O&M step changes including Supervisory Control and Enhanced Data Acquisition, Additional Leak Survey, Hazardous Areas Review and Remediation and Mains Remediation. The effect of these step changes are accounted for in ATCO's bottom up build of opex forecast.





Increase in network maintenance staff is due to additional leak survey personnel as well as growth in network maintenance roles due to the demand from additional network growth and a higher mains length.

Customer Service are ATCO's direct link with the customer and play an important role in maintaining the service and metering assets to the majority of ATCO's customer base (domestic meters). Network Maintenance and Customer Service roles are effected by network expansion geographically. With the distance to travel, traffic and general activity increase, ATCO must ensure it maintains its performance above minimum levels.

Additional Systems Monitoring personnel will be delivering the Supervisory Control and Enhanced Data Acquisition project over AA5 including installation, maintenance and operation of the network through control systems. Additional personnel outside this area will also ensure the delivery of this project whilst maintaining the safety of the network.

An Increase in network support staff is due to further engineering support, network control, and planning and scheduling roles to ensure delivery of the ATCO WP is completed safely, reliably and affordably.



4.7 Resource Challenges

Over the ordinary course of executing the works program both historically and in future, ATCO faces several challenges. These areas are scrutinised and the risks identified so that appropriate mitigation and remediation plans can be put in place to ensure the works program delivery targets remain uncompromised.

4.7.1 Built up areas and high density living

Traffic congestion and access issues associated with increase urbanisation in the Perth metro area including the Perth CBD is continuing to impact on ATCO's emergency response capabilities as well as planned WP tasks including: ongoing maintenance, traffic management, internal reinstatement costs and timely delivery. ATCO are further addressing these issues through the addition of key depot locations to enable adequate resource deployment. ATCO operations continue to work closely with the Procurement team to establish and maintain competitive rates for reinstatement and large traffic management activities.

4.7.2 Contractors

ATCO successfully implemented the Mains and Services (including meter replacement) contract that ensures our principle works including mains replacement and meter replacement is carried out successfully. The mid-term contract review of the project informed ATCO on future contracting strategies. Implementation issues experienced in the Operations area associated with Regional and Customer Service related functions need to be considered as part of the contracting model going forward.

HSE is always a key focus in any contract model as the layer of oversight is 'once' removed in regards to ATCO internal management oversight of contract personnel. ATCO ensure that the ongoing operation and program delivery by our principle contractors is maintained at the same levels as internal. ATCO do this through like-for-like reporting of statistics, regular contractor meetings, revised governance (in 2016) and blending of internal and contract resources to enable cross pollination of skills and experience.

4.7.3 Enterprise agreement

ATCO will again negotiate a new Enterprise Agreement (EA) for the majority of the field personnel. Negotiations will be completed in good faith and ensure to limit any industrial action and keep enterprise agreement personnel in line with the remaining individual contract personnel where relevant.

4.7.4 Retirements

ATCO currently has a large proportion of staff approaching retirement age and ATCO will need to engage additional resources to facilitate knowledge transfer and transition to retirement. On the assumption of retirement at 65, through to 2025 it is forecast that 55 employees will reach retirement age or approximately 15% of the current workforce, refer to Figure 4.6. High numbers of retirements leads to a potential risk of lost knowledge regarding the network. Through the creation of the trainee program, effective succession and development planning and increased efforts information management, ATCO is effectively managing transitions to retirement.







5. Conclusion

The SDRP enables ATCO to demonstrate additional rigor, governance and business oversight around the deliverability plan. The detail on ATCO's internal and external resource approach has also ensured a clear line of sight between ATCO's target of delivering an efficient Works Program and resources it intends to utilise.

ATCO believes that the proposed WP for the period from 2020-24 can be delivered as planned. Given the strategic delivery framework outlined in this document, the resourcing plan and the efficiency and competitiveness of the approach ATCO is confident that execution of the works program is attainable and that it can be delivered in a safely, efficiently and affordably.