

ATCO Gas Australia's Operating Costs

Appendix 6.5

27 November 2014

Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Gas Distribution System

1. Operational efficiencies, optimised planning and multiple information sources utilised in developing efficient bottom-up forecasts of network operating costs – Appendix only

1.1 Efficient planning

Further to the AAI and response to EMCa61, additional information on how the planning optimisation, operational efficiencies and multiple information sources are included in key maintenance activities is outlined below. This illustrates that AGA has arrived at forecasts on a reasonable basis and that AGA's amended proposal for network operating costs over AA4 represents the best forecast or estimate possible in the circumstances.

Operational efficiencies are routinely achieved by:

- Planning work schedules geographically to minimise travel times.
- Up-skilling customer service personnel to replace damaged stand pipes therefore avoid multiple visits to (i) confirm the problem, (ii) undertake a temporary repair and (iii) perform the corrective maintenance or replacement.
- Replacing any unacceptable fittings when undertaking repairs on gas mains rather than coming back for a second visit.
- Up-skilling regional personnel are to carry out pipeline patrol, cathodic protection activities, valve maintenance and Maximum Allowable Operating Pressure activities. This avoids metro personnel significant travel time.
- Mechanical fitters perform functional checks and conduct asset condition assessments to minimise multiple site visits.
- Up-skilling leak survey personnel to assist with maintenance activities when leak surveying is impractical, including leak repair activities and remediation works on high pressure danger signage.
- Enabling vehicle tracking through the Field Mobility project so that the nearest available skilled operator can attend an incident.
- If reactive work emerges as a priority, then any planned works are reorganised for the same vicinity as the reactive fault to ensure maximum productivity.
- Location based clustering is utilised for managing works on commercial meter sites and maintenance on commercial meters sites is synchronised with routine meter changes to avoid multiple site visits.

1.2 Incremental step changes

The following information is additional to that provided in the AAI and in response to EMCa61 and is evidence of the requirement for incremental increases in expenditure given that efficiencies are already included in the bottom-up build of forecast network costs.

In addition to scale growth, forecasts of recurring incremental activity and costs identify several step changes in key activities beyond 2015. These are listed **Error! Reference source not found.** **Error! Reference source not found.** **Error! Reference source not found.** below. Most incremental recurring activities are driven by requirements of the Safety Case and requirements under current legislation such as the Gas Standards Act.

OPERATIONAL EFFICIENCIES, OPTIMISED PLANNING AND MULTIPLE
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Table 1–1: Incremental step changes in network activity

\$ million real at 30 June 2014	2015	2016	2017	2018	2019
Baseline recurring costs	27.1	28.3	28.5	29.2	29.6
Incremental Recurring Costs					
Leak survey	0.5	0.6	0.6	0.6	0.6
Facilities Maintenance & Cathodic Protection	0.3	0.3	0.4	0.4	0.5
Commercial Meter Change	0.2	0.3	0.5	0.4	0.3
Systems Monitoring	0.1	0.2	0.2	0.2	0.3
Inspection of customer gas installations	0.4	0.7	0.7	0.8	1.0
Proving gas mains location	0.1	0.1	0.1	0.1	0.1
Safety Awareness	0.5	0.5	0.5	0.5	0.5
Dial Before You Dig	0.1	0.2	0.2	0.3	0.3
Technical Compliance & Field Inspections	0.6	0.6	0.7	0.7	0.8
HSE	0.3	0.3	0.3	0.3	0.3
Asset Services	0.2	0.2	0.3	0.3	0.3
Market Services	0.2	0.4	0.5	0.5	0.6
Total incremental recurring costs	3.6	4.3	4.8	5.2	5.6
One off Costs					
In-Line inspections	0.4	0.1	0.1	0.1	0.2
PVC Studies	0.1	0.1	0.0	0.0	0.0
Pressure Vessel Inspection at PRSs	0.2	0.2	0.2	0.0	0.0
Total One off Costs	0.6	0.4	0.3	0.1	0.2
Total ATCO Proposed network operating expenditure	31.4	33.0	33.6	34.5	35.3
ERA Draft Decision reductions		(0.7)	(1.2)	(1.6)	(2.0)
Authority Approved network operating expenditure	31.4	32.3	32.4	32.9	33.4

1.2.1 Leak Survey

The incremental \$0.1 million increase in 2016 is to account for the implementation of AS/NZS 4645.1:2008 Section 6.5.3 which is a requirement of gas distribution systems Safety Cases as per Gas Standards (Gas Supply and System Safety) Regulations r.27(2)(a). The leak survey obligation requires:

- annual leak surveys be extended to an additional 11 CBD zones;
- additional annual surveys shall also be conducted on sensitive locations such as schools and hospitals as well as multistorey buildings;
- where networks exhibit higher leakage rates, the frequency of leak surveys is reducing from 5 years to 3 years to make the most informed and prioritised asset management decisions based on asset condition information collected through these surveys; and
- the expansion of the distribution system through greenfield growth also increases the overall leak survey required.

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Where possible, leak survey resources are teamed with cathodic protection personnel to prevent multiple visits to the same site for different activities. During inclement weather resources are redirected to assist with operational activities to improve business productivity.

Zincara has reviewed this incremental recurring activity and found that “Undertaking an FSA for this critical activity is prudent. The resulting increase in annual leak surveys for high risk locations, high risk pipelines and CBD streets is in line with addressing high risk areas and the risk assessment does not, in Zincara’s opinion represent a low threshold, as it aligns with practices implemented by other distribution businesses.” *“Zincara’s direct experience with such targeted leak surveys supports ATCO’s assertion that it will experience an increase in leak repairs.”*

Further Zincara states *“EMCa made comment that these leak surveys could be reduced where mains replacement is scheduled. It is Zincara’s opinion that such an approach would nullify the risk assessment that initiated the requirement and hence increase the risk profile which is contrary to good operating practice.”*

AGA concludes that, given the incremental increase in leak survey requirements and the efficiencies already realised for the leak survey activities this forecast has been arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.

1.2.2 Technical compliance

The two incremental increases of \$0.1M in 2017 and 2019 directly relate to resources necessary to deliver the inspections required for the growth in works programmes and activities across the network. Inspections conducted by these resources are a regulatory requirement and this has been presented to and approved by the ERA as part of an R-factor submission. These inspections form part of ATCO Gas Australia’s duty to provide adequate supervision and ensure the supplied work procedures and practices are being utilised, as per Gas Standards (Gas Supply and System Safety Regulations 2000 r.18(2)).

Zincara reviewed the risk assessment conducted by AGA for the field inspections activity and found *“It is Zincara’s opinion, based on extensive operational and risk assessment experience in the gas industry, that the methodology and process applied for the risk assessment is logical and thorough, and as would be performed by a prudent gas distribution business.”* and *“In Zincara’s opinion the risk thresholds applied for this risk assessment and the approach to calculation of resources, represent good industry practice among Australian gas distribution businesses and are in accordance with AS/NZS4645 which is the predominant standard for much of ATCO’s Opex activities.”*

“Zincara notes that while the majority of the expenditure increase occurs by 2015, it does not believe it prudent to cap expenditure at that time, as this will have the impact of limiting the sampling rate of field inspections. The incremental inspection activity will be incorporated into baseline recurring activity and programmed with existing inspections. For the above reasons, Zincara believes that this activity complies with rule 74 and 91(1).”

1.2.3 Commercial meter change

Maintenance schedules for commercial meter changes are required under Gas Supply and System Safety Regulations and are set out in the AMP. Volumes of commercial meter changes fluctuate each year and are dependent on the original time of installation. The forecast expenditure has been based on a schedule of meter changed required as part of the Asset Management Plan and is required to meet ATCO Gas Australia’s obligations under the Gas Supply and System Safety Regulations. As shown in Figure 1–1 below.

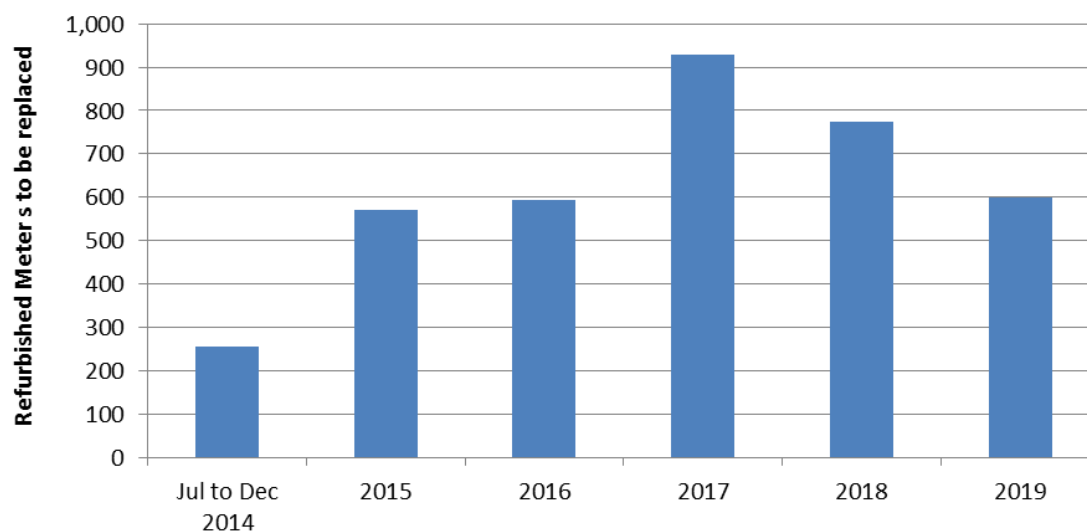


Figure 1–1: Table demonstrating fluctuating nature of commercial meter change

Zincara has reviewed this incremental recurring activity and found that *“This activity is subject to the lifecycle of the commercial meter families and is required to comply with GSSS Regulations. Expenditure variations reflect the number of meters forecast for replacement during the years of AA4. Zincara agrees with this incremental recurring activity and it is not appropriate to cap expenditure at 2015 level. This incremental recurring activity will be incorporated into ATCO’s meter change programme and Zincara does not envisage any other “integration” benefits. In Zincara’s opinion, this activity satisfies rule 74 and 91(1).”*

1.2.4 Facilities maintenance and cathodic protection

The incremental increases from 2017 to 2019 are a result of network mains and regulator installations to support the planned increase in maintenance of small commercial meter sets. The increases are also linked to and pre-empted by DBYD requests, which indicate that there is a forecast increase in customer-driven high pressure pipeline location requests due to forecast economic growth and the requirement for third party underground utilities communications.

Zincara has reviewed this incremental recurring activity and states in its report *“Zincara considers these activities to be essential for the safe and prudent management of the network, so capping expenditure at 2015 level is not appropriate, subject to the level of network growth over AA4”* and *“Zincara does not envisage any other “integration” benefits and given the comments above, believes that this activity satisfies rule 74 and 91(1).”*

1.2.5 Systems monitoring

The incremental increase in the systems monitoring forecast between 2015 and 2016 is a result of the forecast capital works program, as outlined in the AMP, to install telemetry and systems monitoring equipment on new and existing pressure regulating equipment. As the volume of system monitoring units increases the associated volume of maintenance requirement increases.

Zincara has reviewed this incremental recurring activity and found that *“Benefits arising from this initiative are the reduced likelihood of component failures and associated reactive fault repairs along with the enhanced reliability of network operation. EMCa made a comment that the telemetry should reduce the need for as much on site attendance. In Zincara’s opinion this is correct if the “fault” could be identified as a false alarm by the monitoring controller. Otherwise response to faults does not change. Given the above comments, in Zincara’s opinion, this activity satisfies rule 74 and 91(1).”*

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1.2.6 Dial Before You Dig (DBYD)

DBYD is a key control to prevent third party damage to ATCO Gas Australia's network which is assessed as the highest network risk on ATCO Gas Australia's risk register. Volumes projected for DBYD enquiries to ATCO Gas are forecast from historical information provided by Dial Before You Dig Western Australia. This is an independent organisation coordinating DBYD in Western Australia, with over two decades of data that demonstrates proven and maintained growth of this service in WA.¹

Participating in a DBYD programme is a recognised control for external interference protection in AS 2885.1-2007 and has been identified as a control to reduce the potential for external interference in the Formal Safety Assessments that have been undertaken under the requirements of AS/NZS 4645.1:2008. This is why the accepted Safety Case covers ATCO Gas Australia's participation in DBYD.

Zincara has reviewed this incremental recurring activity and states in its report "*Zincara confirms that this activity is such that would be incurred by a prudent service provider and important to the safe operation of the network and a vital service to the construction industry in particular. From its observation in other states, increasing awareness of the service will result in a significant growth in DBYD requests*" and "*Zincara believes that this activity complies with rule 74 and 91(1).*"

1.2.7 Inspection of gasfitting work

The ATCO Gas Australia inspection plan uses statistical sampling of gasfitting work on consumer gas installations to ensure that work carried out on consumers' installations meets the required safety and technical specifications. The inspection plan is approved by Energy Safety and exempts ATCO Gas Australia from the requirement of s.13(1) of the Gas Standards Act 1972 (GSA), allows inspection to be conducted in accordance with s. 13K of the GSA and supports an exemption pursuant to Regulations 35(3) of the Gas Standards (Gasfitting and Consumer Gas Installation) Regulations 1999 (GSR). Without the exemption issued under s.13(1) of the GSA, ATCO Gas Australia would be required to inspect 100% of gasfitting work on consumer gas installations and verify compliance with the required safety and technical specifications prior to commencement of gas supply. During AA3, Energy Safety introduced a new Notice of Intent (**NOI**) process which involves 100% inspection of:

- Multi residency (16 or more residential units);
- Multistorey (3 or more storeys) buildings;
- Consumer piping containing piping diameters greater than 32mm nominal bore;
- Class I (industrial and commercial) installations; and
- Gas installations with a maximum gas supply rate greater than 1000 Mj/hr.

A requirement to validate all inspections is also incorporated in the ATCO Gas Inspection Plan and carried out by the Inspection team. This involves the onsite sample review of inspections conducted as well as back office statistical analysis to validate the effectiveness of the inspections plan. The Inspection Team and Inspection Plan are audited annually both internally by ATCO Gas and Energy Safety.

Zincara has reviewed this incremental recurring activity and states in its report "*Zincara considers that this programme is important in ensuring the safety of consumer gas installations. It also provides a cost effective approach by way of sampling rather than inspection of all gas installation work. ATCO has forecast an ongoing increase in expenditure to support the programme. Zincara considers that the ongoing increase is related to network growth and should not be capped at 2015 level, subject to ongoing growth forecast*" and "*In Zincara's opinion, based on the above comments, this activity satisfies rule 74 and 91(1).*"

¹ Refer to Figure 50 in the AAI – reference properly

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1.2.8 Asset Services

The \$0.1M incremental increase in 2017 delivers value by aligning the ATCO Gas Australia AMS with ISO55001. It is considered prudent and compliant with ATCO Gas Australia’s obligations contained in Gas Distribution Licence 8 (GDL8) because it ensures efficient, integrated systems are in place to facilitate improved asset investment and also allows ATCO Gas Australia to achieve an optimal balance of cost, risk and asset performance.

ATCO Gas Australia has determined the technical resources required to align AMS with ISO55001 on an ongoing basis for all of the forecast operational expenditure programmes over the next five years in order to optimise asset lifecycle and replacement decisions for major asset classes such as PVC. The resources will be required to collect and analyse considerable amounts of asset condition and performance data in order to predict the end of technical operating life and inform a prudent and efficient approach to extending the asset life. The current asset services team does not have capacity to undertake this additional workload.

Zincara reviewed this incremental increase in Asset Services and states in its report “Given that the AMS was developed in 2002, Zincara considers it prudent to update the AMS to current requirements. In Zincara’s experience ongoing development of asset management systems enables more targeted analysis and management of the network assets. Zincara therefore believes that this activity complies with rule 74 and 91(1).”

1.2.9 Market Services

Market Services is responsible for:

- ensuring ATCO Gas Australia meters are:
 - installed as requested;
 - read and billed;
- the provision of energy data to REMCo and retailers; and
- services to confirm meter identification and address information for customer transfer between retailers.

The current operational structure of nine FTEs was determined at the introduction of full retail competition in 2004 to meet the market demands and has essentially remained unchanged in the last decade.

The market has seen a significant step change following Kleenheat’s entry which requires sufficient resourcing to manage. There is substantial increase in volume of competition in both the residential and commercial gas market which has driven the need for ATCO Gas Australia to grow current processes and resource levels to ensure a sustainable servicing of market requirements in the next AA period to address the issue.

A review of customer activity in the South Australian market (where full retail contestability was introduced around the same time as WA) suggests that WA can expect a substantial increase on the current 3% customer churns. The following illustration compares the market activity in SA and WA:

Table 1–2: Comparison of market activity in South Australia and WA

Customer transfers	SA	WA
Year ending 30 June 2009:		
Total customers (MIRNS)	390,651	610,294
Active retailers (small use customers)	4	1
Total customer transfers	41,568	29
Churn rate	11%	0%

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Customer transfers	SA	WA
Year ending 30 June 2014		
Total customers (MIRNS)	436,834	667,941
Active retailers (small use customers)	4	2
Total customer transfers	57,780	22,539
Churn rate	13%	3%

The 5 year forecasts are premised on increased gas retail competition and organic customer growth which is expected to drive cost increases in the key categories of labour, meter reading & billing services, and gas quality monitoring.

The Market Services forecast makes provision for a Customer Relations FTE and a Billing Services FTE in 2015 to support:

- Customer transfer transactions – to ensure customers are successfully transferred to the new retailer as requested. This involves resolving MIRN status issues (disconnection/reconnection) between ATCO Gas Australia and the respective 2 retailers, resolving any meter reading anomalies which prevent customer transfers and resolving incorrect customer transfers. Prior to Kleenheat entry, Market Services was supporting only a 0.005% churn rate, however post Kleenheat entry and at 30 June 2014, the churn rate has significantly increased to 3% representing more than 22,000 customer transfers.
- Metering data requests – to ensure that retailers receive metering data as requested to assist with their customer transfers and billing processes. This involves receiving data requests, processing and releasing the data reports. Between 2009 and 2014, the number of requests has increased by from 100/year to more than 1200/year an 1100% increase.
- Meter site investigations – to ensure correctness of meter location for safety needs, customer billing and customer transfer process as required under the retail market rules. The volume of on-site investigations performed by meter readers in 2014 (year to date) was more than 1600 compared to approximately 600 in 2009 and 2012 calendar years. This represents a 167% increase due primarily to retail competition and each meter site investigation result requires Market Services data operators confirm the results with GNIS and Landgate, update market standing data and ensure the correct customer is billed.
- Haulage pricing – Retail competition has also increased in the commercial and industrial customer segment. Meeting market demands for haulage pricing in this customer segment within deadlines as required under the rules require expert network tariff and billing system knowledge to ensure accuracy and completion.
- Billing issues – to ensure accuracy and completeness of delivery point billing to retailers. The volume of customer transfers and the complexities of the haulage service and tariffs now being offered has created more billing exceptions and more care and attention by Market Services data operators to ensure resolution. Key billing issues include error correction notices (where a customer was incorrectly and involuntarily transferred to another retailer), ancillary service charges correction (where one retailer requested the ancillary service but ATCO incorrectly billed another retailer) and billing disputes handling and resolution.

Meter reading activity costs are premised both on customer growth from new connections in the AA and increasing levels of special reads, customer disconnections and reconnections, meter address investigations which are all a result of retail competition generating higher volumes of customer transfer related transactions and outside of ATCO Gas Australia's direct control.

Zincara reviewed this incremental increase in Market Services and states in its report *"In Zincara's experience and as noted with other distribution businesses, the quality of information between industry participants is an ongoing challenge and there are ongoing efforts to improve the accuracy and timeliness of data. Zincara supports ATCO's approach and notes that most of the increasing expenditure does not occur until 2017, so capping it at 2015 level will inappropriately limit ATCO's efforts to meet its market services*

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obligations. Zincara considers this activity provides support to the industry and is therefore prudent and in accordance with good industry practice, in compliance with rule 91(1)."

1.3 Summary

These step changes have been determined based on increases in ATCO Gas Australia's work programme required to fulfil regulatory requirements and in the case of DBYD and Gas Fitting Inspections by drivers outside of ATCO Gas Australia's control. Therefore, ATCO Gas Australia concludes that incremental increases in its network operating costs will be required across AA4.

Zincara's opinion in relation to Incremental recurring expenditure activities is as follows:

"In summary it is Zincara's assessment that the estimates are arrived at on a reasonable basis and represent the best forecast possible in the circumstances, in accordance with rule 74.

Zincara is also of the view that, on balance, the incremental recurring expenditure complies with rule 91 (1) on the basis that it would be incurred by a prudent service provider, acting efficiently, in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services."