

Attachment 8.12

Response to Draft Decision
SA Australian Gas Networks Limited:
Information Technology Cost
Benchmarking

A report by KPMG

**2016/17 to 2020/21 Access
Arrangement Information
Response to Draft Decision**

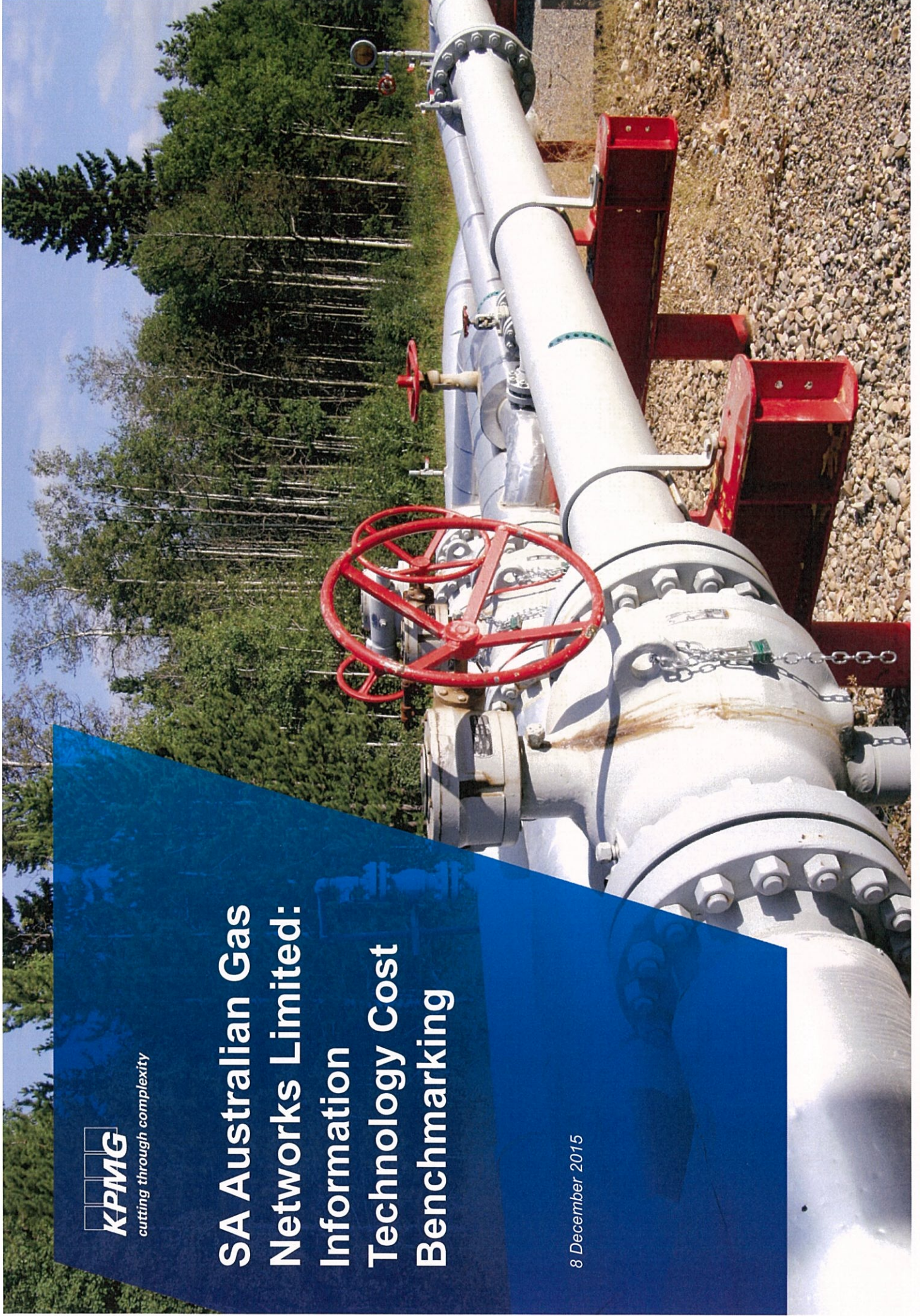
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SA Australian Gas Networks Limited: Information Technology Cost Benchmarking

8 December 2015





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Commercial in confidence

Mr Craig de Laine
Australian Gas Networks Ltd
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8 December 2015

Dear Craig

Report on AGN's IT cost submission

We have been engaged by Australian Gas Networks, South Australia (AGN SA) to provide analysis over the IT expenditure forecasts submitted to the Australian Energy Regulator (AER), as part of its proposal for the upcoming Access Arrangement period 2016/17 – 2020/21. Our analysis has been performed in accordance with our engagement letter dated 21 October 2015 and outlined in the Scope section of the report.

This report has been prepared based on data supplied by AGN SA 7 December, 2015. AGN SA's results have been compared to utilities industry benchmarks, calculated based on data available publicly and from KPMG's utilities IT benchmarking surveys. We have indicated in this report the sources of the information presented.

This report is not to be used for any other purpose or distributed to any other person, or as otherwise agreed by us in writing.

Thank you for the opportunity to provide AGN SA with advisory services. We would like to thank you and the relevant AGN SA personnel for the assistance provided in conducting this engagement and we look forward to continuing to provide service to your organisation.

Yours sincerely,

Josephine Meneses
Partner

Important Notice

Inherent Limitations

This report has been prepared for Australian Gas Networks Limited, South Australia (AGN SA). The services provided in connection with this report comprise an advisory engagement, which is not subject to assurance or other standards issued by the Australian Auditing and Assurance Standards Board and, consequently no opinions or conclusions intended to convey assurance have been expressed.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by, AGN SA and consulted as part of the process.

KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The findings in this report have been formed on the above basis.

Third Party Reliance

Our consent to releasing this report to the AER is conditional to the terms below.

With respect to the release, and to the maximum extent permitted by law:

- a) KPMG is not responsible to you or any other party for any loss you or any other party may suffer in connection with the release of the report to, or use of the report by, the AER;
- b) you agree to release and forever discharge KPMG, its affiliated entities, and their partners, officers and employees from, and not assert against them, any action, liability, claim, suit, demand, claims for costs or other expenses or any other proceedings arising out of, or in connection with, the release of the report to the AER; and
- c) you will indemnify KPMG and its affiliated entities, and their partners, officers and employees against any loss, action, liability, claim, suit, demand, claim for costs or expenses or any other proceeding they may suffer arising out of, or in connection with, the release of the report to the AER.

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AA	Access Arrangement	N. Org	Number of organisations, included within the benchmark calculation of that year
AAP	Access Arrangement Period	Next AAP	Next Access Arrangement Period From 1 July 2016 to 30 June 2021
AER	Australian Energy Regulator	Nom	Nominal
AGN	Australian Gas Networks	NGR	National Gas Rules
APA	The APA Group	Opex	Operating Expenditure
CA	Category Analysis	Previous AAP	Previous Access Arrangement Period From 1 July 2006 to 30 June 2011
Capex	Capital Expenditure	PTRM	Post-tax Revenue Model
Current AAP	Current Access Arrangement Period From 1 July 2011 to 30 June 2016	RFM	Roll Forward Model
Dep	Depreciation	RIN	Regulatory Information Notices
DPI	Delivery Point ID	SA	South Australia
EB	Economic Benchmarking	Totex	Total Expenditure, being: Capital Expenditure plus Operating Expenditure
EDPR	Electricity Distribution Price Reset		
Exc.	Exclude		
FTE	Full Time Equivalent		
FY	Financial Year		
Gas business	AGN gas distribution business		
Inc.	Include		
IT	Information Technology		

A large blue trapezoidal graphic that tapers from left to right, serving as a background for the text.

Executive summary

<p>Background</p>	<p>Australian Gas Networks (AGN SA) has recently submitted its proposal to the Australian Energy Regulator (AER) for the next South Australian Access Arrangement (AA). AGN has proposed Information Technology (IT) Capital Expenditure (Capex) of \$59.7 million (\$Real 2014/15) over the next AA Period (AAP). It has also proposed IT Operating Expenditure (Opex) of \$24.4 million (\$Real 2015/16) over the next AAP.</p> <p>AGN SA has engaged KPMG to perform an independent benchmark analysis of its IT expenditures to other utilities. This report presents the results of the benchmarking analysis.</p>
<p>Scope and approach</p>	<p>This report provides a comparison of AGN's IT Capex and Opex benchmarks to other utilities, based on publicly available utilities data and KPMG's utilities IT benchmarking surveys.</p> <p>The IT and network business data provided by AGN SA is consistent with its AA Proposal to the AER on 1 July 2015, these have been included in Appendix A of this report.</p> <p>KPMG calculated the following benchmarks for AGN SA, then compared the results to industry benchmarks.</p> <ul style="list-style-type: none"> ■ Total Expenditure (Totex): Totex per customer; ■ Capital Expenditure (Capex): Capex per customer; ■ IT Total Expenditure (IT Totex): IT Totex as a % of Totex; ■ IT Total Expenditure (IT Totex): IT Totex per customer; ■ IT Capital Expenditure (IT Capex): IT Capex as a % of Capex; ■ IT Capital Expenditure (IT Capex): IT Capex per customer; ■ IT Operating Expenditure (IT Opex): IT Opex as a % of Opex; and ■ IT Operating Expenditure (IT Opex): IT Opex per customer. <p>The comparison is based on 8 benchmarks, over a period of approximately 15 years (covering the previous, current and next AAPs), and dependent on AGN SA and industry data availability. The list of benchmarked organisations and the scope of the data used in the calculations have been included in Appendix B of this report.</p>
<p>Note: AGN SA's revised submission to the AER</p>	<p>The information used in this Report reflects the data provided by AGN SA to the AER on 1 July 2015 in its AA Proposal. KPMG understands that AGN SA intends to moderate its proposal in response to the AER's Draft Decision (released 26 November 2015). Specifically, that AGN SA's revised proposal will reflect lower IT Capex and lower IT Opex than originally proposed (and relied upon in this Report). Based on this information and assuming no material change to the overall Capex and Opex forecasts, it is not expected that AGN SA's revised proposal will materially impact the findings in this Report.</p>

Key observations

Based on the IT cost benchmarking analysis on AGN SA, we noted the following observations:

- IT Capex in the current AAP and forecast for next AAP, reflect AGN SA's investment cycles over the 15 year period.
- IT Capex in the previous AAP has been evidently low, when compared to industry. AGN SA is proposing IT investments in the next AAP to bring its technology capability in line with industry.
- AGN SA's IT Totex, Capex and Opex benchmark results are consistently below or in line with the industry benchmark mean. This suggests that IT expenditures are comparably efficient to the Australian utility industry, for both actual and planned IT expenditure forecasts. Other key observations include:
 - AGN SA's IT expenditures have been at the lowest level of the industry in the previous AAP. Expenditure increases in the current AAP and forecast increases for the next AAP, bringing AGN SA in line with the industry;
 - AGN SA's recent IT programs have been reflected in the increase in results for IT Totex and IT Capex benchmarks, from 2012 to 2014. Despite the increases, AGN SA remains below the industry mean;
 - AGN SA has forecast to increase its IT expenditures over the next AAP, despite this, AGN SA's forecast expenditure remains below the industry mean; and
 - The increase in IT expenditure reflects AGN SA's increasing reliance on IT to deliver its gas distribution network services. This is consistent with the industry trend, in the increasing use of IT in the delivery of utility services.

IT expenditure overview

AGN SA manages its IT expenditures over periods of IT investment cycles, in a similar approach to other utility organisations.

The IT Capex investment cycles are evident over the three AAPs, that are the subject of this benchmarking report.

In the previous AAP, from 2006/07 to 2010/11, AGN SA has made very low levels of IT Capex investments. This was followed by an increase in the current AAP to deliver a number of IT programs in bringing its technology capabilities in line with industry. The investment peaks reflect a catch-up period following an under-investment in the previous AAP.

AGN SA has provided their financial data in line with its submission to the AER on 1 July 2015. The financial data is presented on a nominal basis, 2006/7- 2014/15, for the previous and current AAPs, and in Real \$2015/16 from 2015/16 to 2020/21.

IT Capex

A summary of AGN SA's IT Capex forecasts over the three AAPs are as follows:

- Previous AAP, from 2006/07 to 2010/11, of \$1.69m (\$Nom Actual);
- Current AAP, from 2011/12 to 2015/16, of \$23.75m (\$Nom Actual); and
- Next AAP, from 2016/17 to 2020/21, of \$60.49m¹ (\$Real 2015/16).

The under-investment in IT in the previous AAP, led AGN SA to be out of step with industry on its technology capabilities.

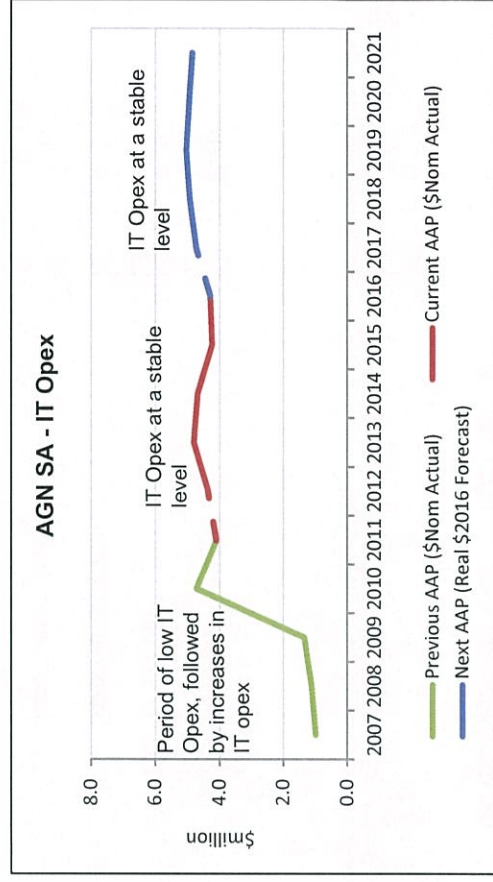
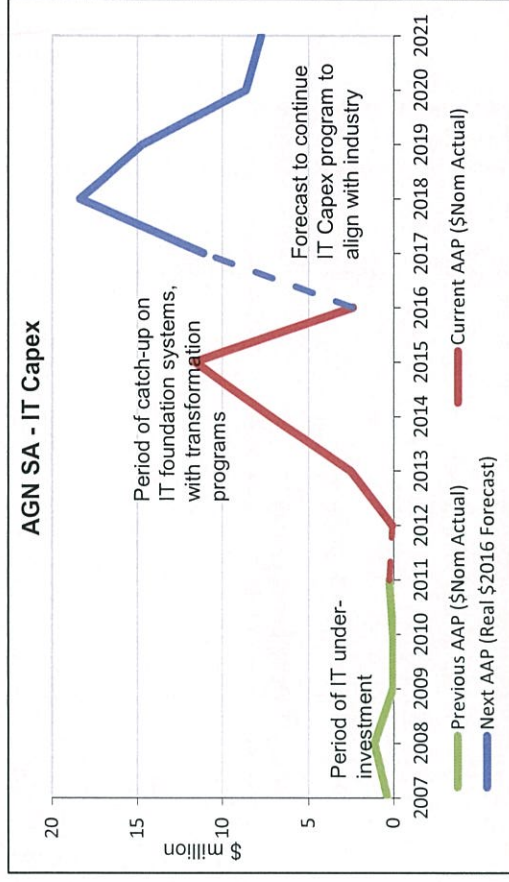
AGN SA responded with investments in its foundation IT systems in the current AAP, such as its enterprise asset management system, bringing its IT capabilities more in line with industry.

AGN SA has proposed to continue with a number of key IT capital programs in its next AAP, as part of their national program.

IT Opex

AGN SA's IT Opex has increased from approximately \$1m (\$Nom Actual) p.a. from 2006/07 to 2008/09 to a stable level of \$4m (\$Nom Actual) p.a., from 2009/10 to 2015/16. AGN SA is proposing to maintain this level of IT Opex over the next AAP.

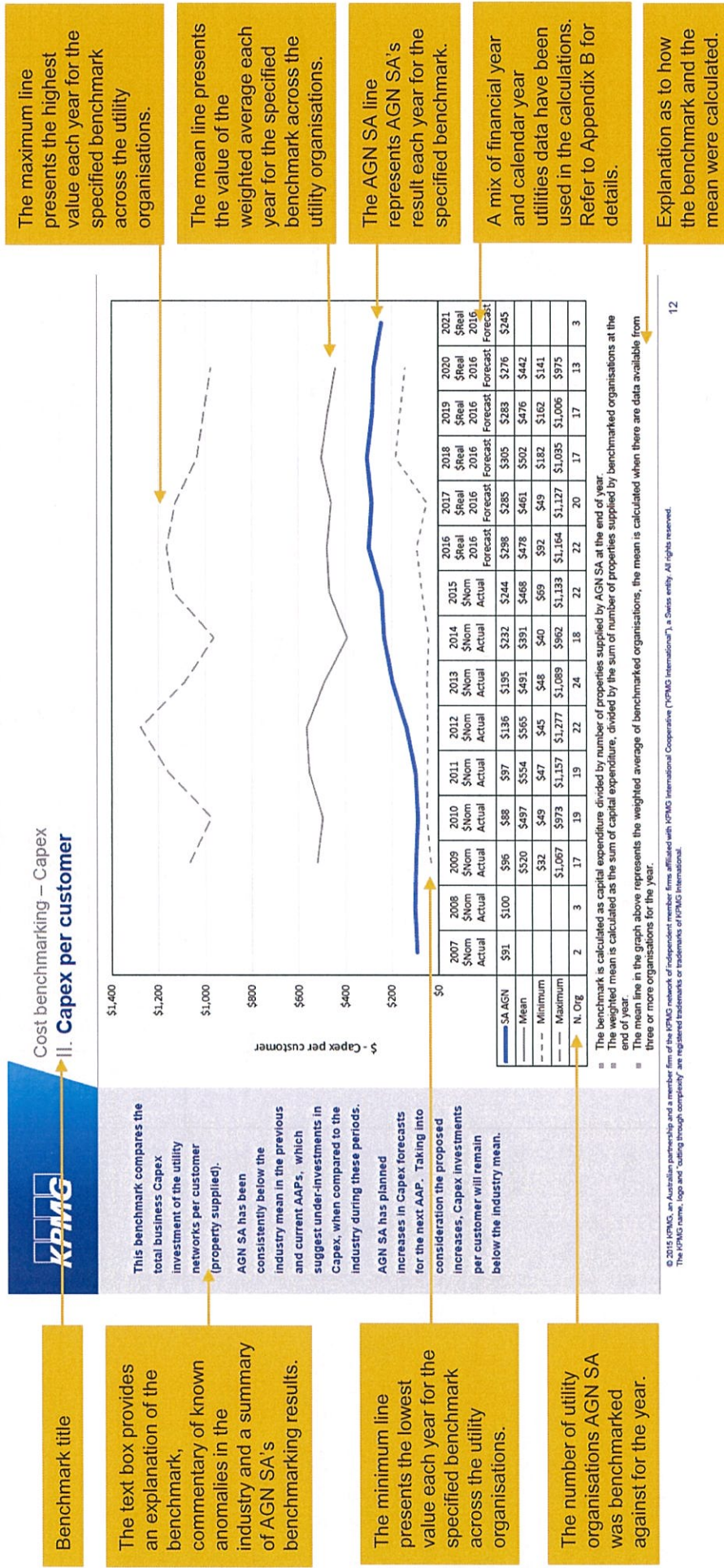
Note: (1) IT Capex presented for the next AAP are direct costs only and do not incorporate cost escalation or overheads



Benchmarking analysis

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The diagram below explains the key components of the benchmarking analysis presented in this section:



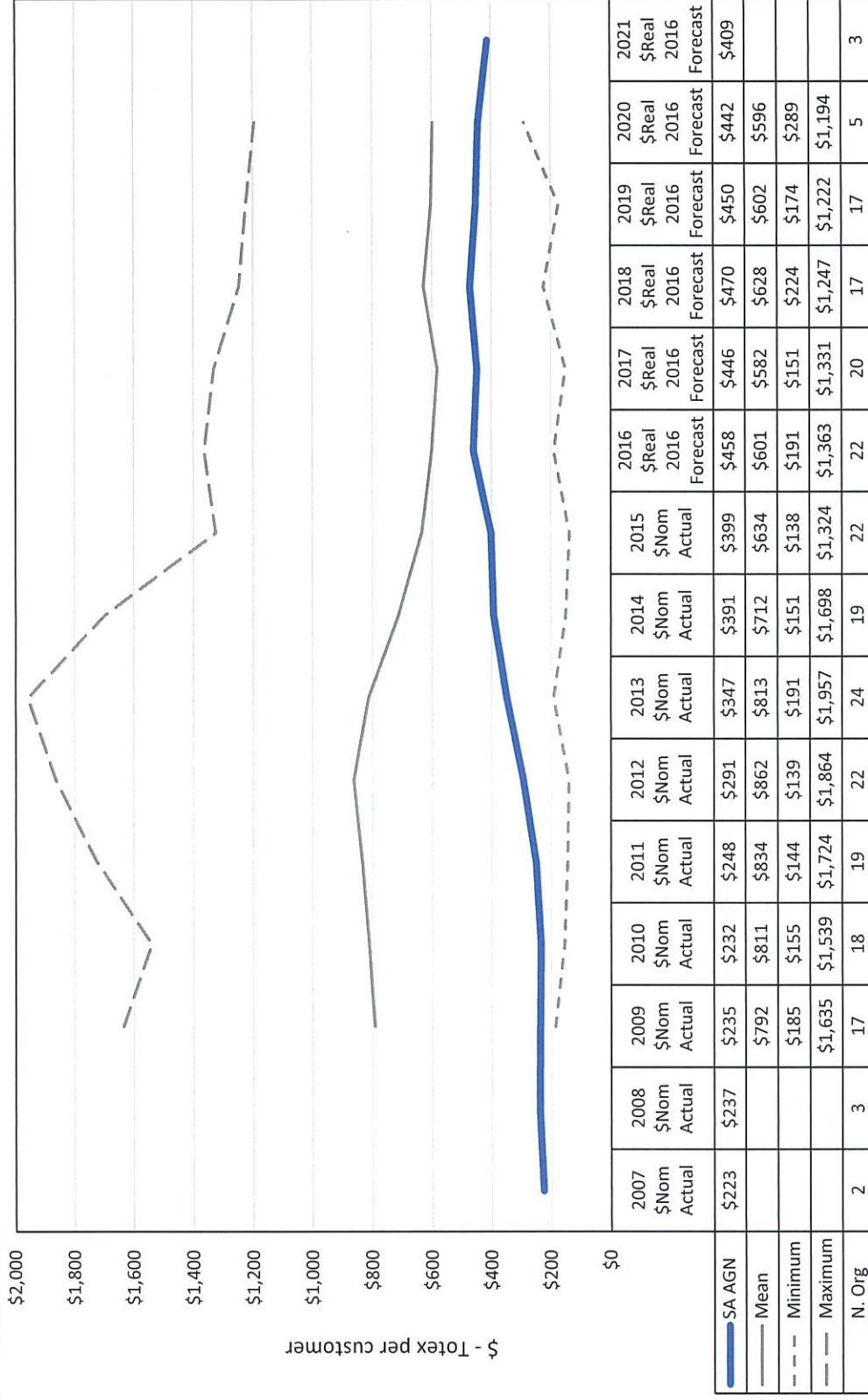
Cost benchmarking – Totex

I. Totex per customer

This benchmark compares the total business costs required to provide utility services per customer (property supplied).

AGN SA has been consistently below the industry mean in the previous and current AAPs.

AGN SA proposes increases in expenditure for the next AAP. Taking the increases into consideration, the forecast costs to provide utility services per customer will remain below the industry mean and comparatively efficient.



- The benchmark is calculated as total expenditure (Capex + Opex (exc. dep)) divided by number of properties supplied by AGN SA at the end of year.
- The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.
- The weighted average is calculated as the sum of total expenditure (Capex + Opex (exc. dep)), divided by the sum of number of properties supplied by the benchmarked organisations at the end of year.

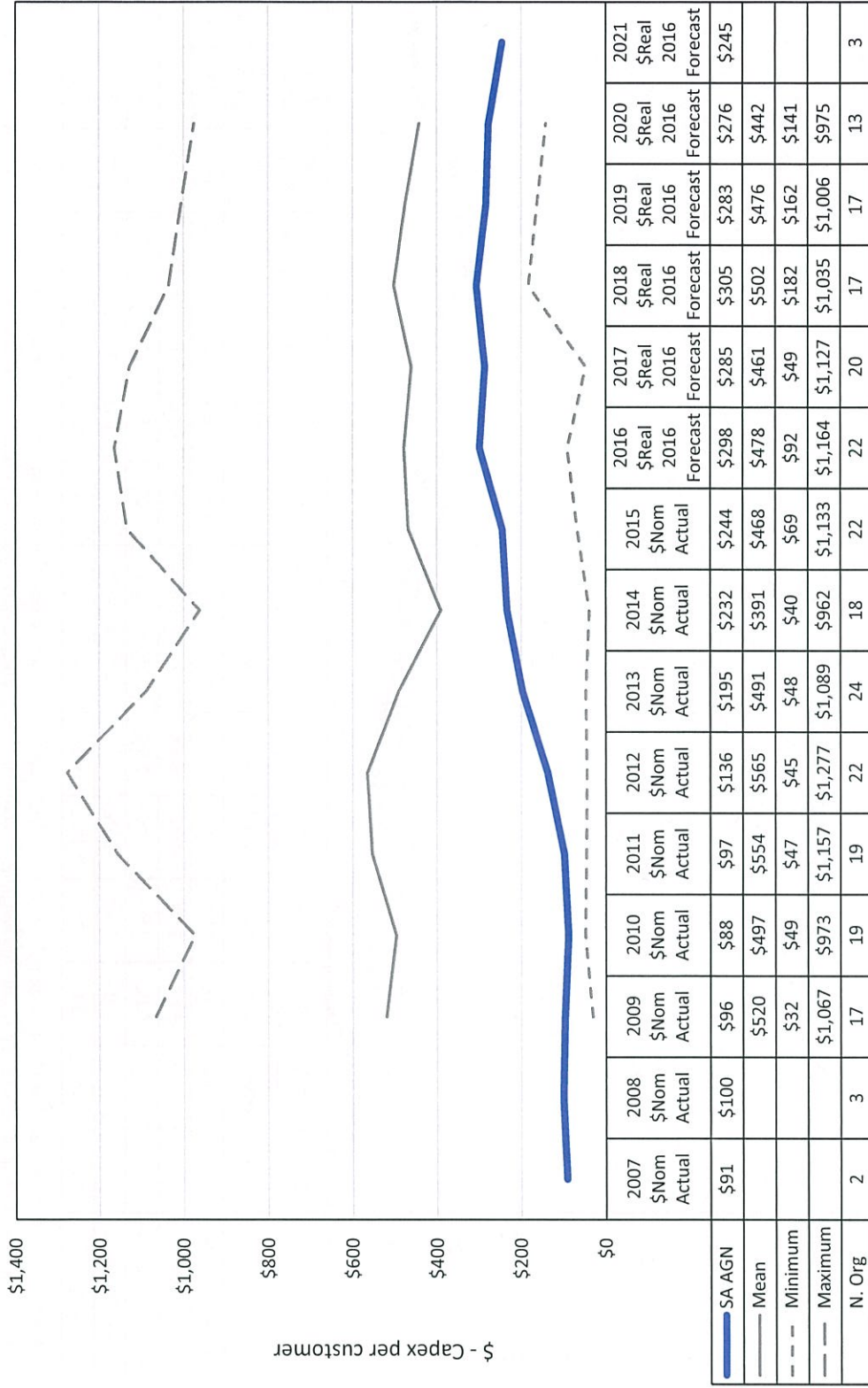
Cost benchmarking – Capex

II. Capex per customer

This benchmark compares the total business Capex investment per customer (property supplied) of the distribution utilities.

AGN SA has been consistently below the industry mean in the previous and current AAPs, which suggest under-investments in Capex, when compared to the industry during these periods.

AGN SA has planned increases in Capex forecasts for the next AAP. Taking into consideration the proposed increases, Capex investments per customer will remain below the industry mean.

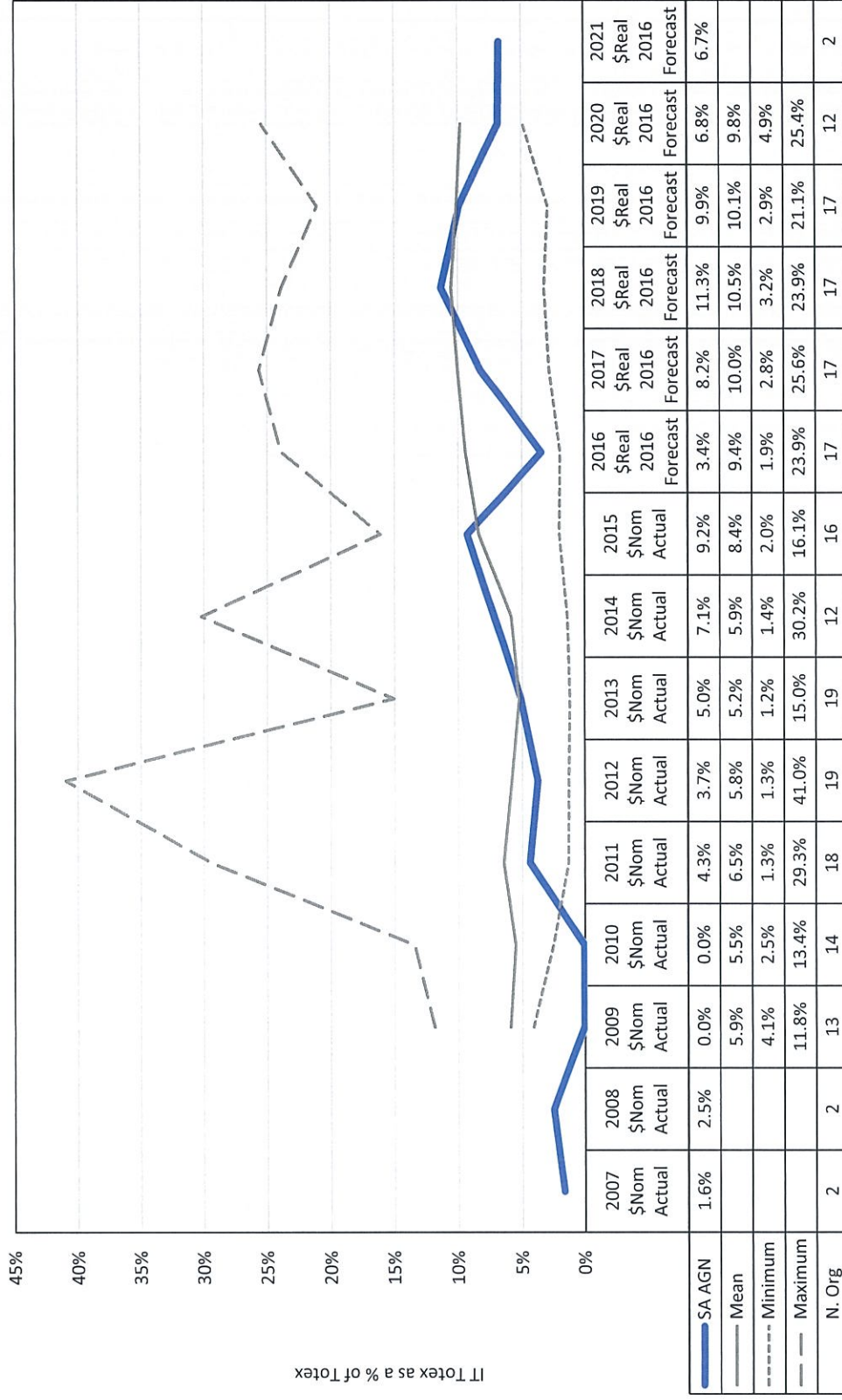


- The benchmark is calculated as capital expenditure divided by number of properties supplied by AGN SA at the end of year.
- The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.
- The weighted average is calculated as the sum of capital expenditure, divided by the sum of number of properties supplied by benchmarked organisations at the end of year.

This benchmark represents an organisation's degree of reliance on IT in delivering its utility services. The mean's increasing trend suggests increasing reliance on IT in delivering utility services at the industry level. AGN SA's increases in IT expenditure is consistent with industry.

Large IT investments of 3 utilities have been reflected in the sharp peaks of the benchmark maximum line from 2011 to 2015.

AGN SA's results have been below the industry and has forecasted to remain below the industry mean over the next AAP. AGN SA's two peak periods in IT expenditure (2015 and forecasted in 2018) bring its benchmark in line with the industry mean. The results show that AGN SA's IT expenditure are comparatively lower than industry.



- The benchmark is calculated as IT total expenditure (IT Capex + IT Opex (exc. dep)), divided by total expenditure (Capex + Opex (exc. dep)).
- The mean line in the graph above represents the weighted average of benchmarked organisations, the mean is calculated when there are data available three or more organisations for the year.
- The weighted average is calculated as the sum of IT total expenditure (IT Capex + IT Opex (exc. dep)), divided by the sum of total expenditures of benchmarked organisations.

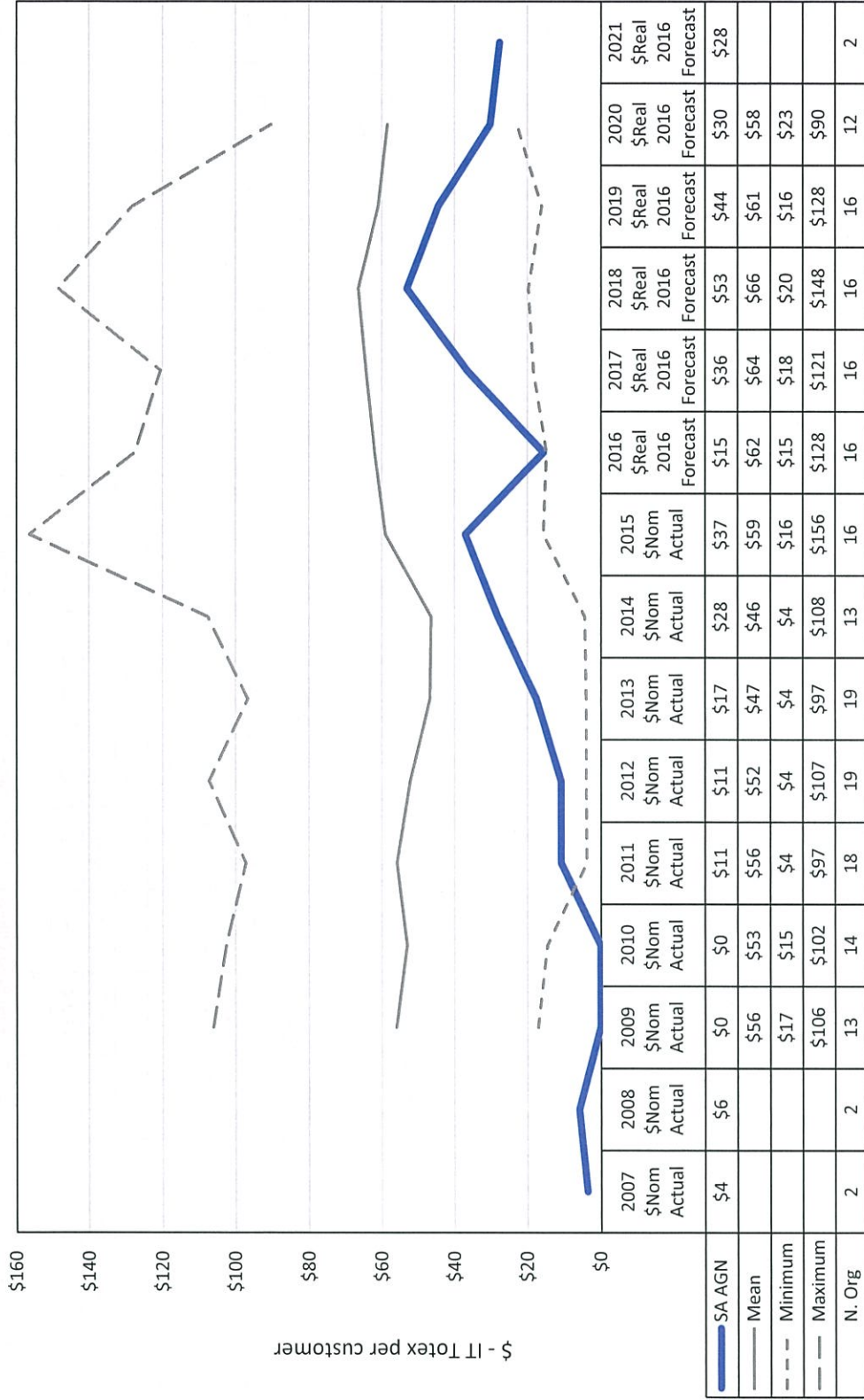
IT cost benchmarking – IT Totex IV. IT Totex per customer

This benchmark compares the IT costs required to provide the utility services to each customer (property supplied).

AGN SA has been consistently below the industry mean in the previous and current AAPs and has forecast to remain below the industry mean in the next AAP.

The results suggest AGN SA's IT expenditure is consistently below the industry level.

AGN SA's IT expenditure per customer is comparably efficient to the industry.



- The benchmark is calculated as IT total expenditure (IT Capex + IT Opex (exc. dep)) divided by the number of properties supplied by AGN SA at the end of year.
- The mean line in the graph above represents the weighted average of benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.
- The weighted average is calculated as the sum of IT total expenditure (IT Capex + IT Opex (exc. dep)), divided by the sum of number of properties supplied by the benchmarked organisations at the end of year.

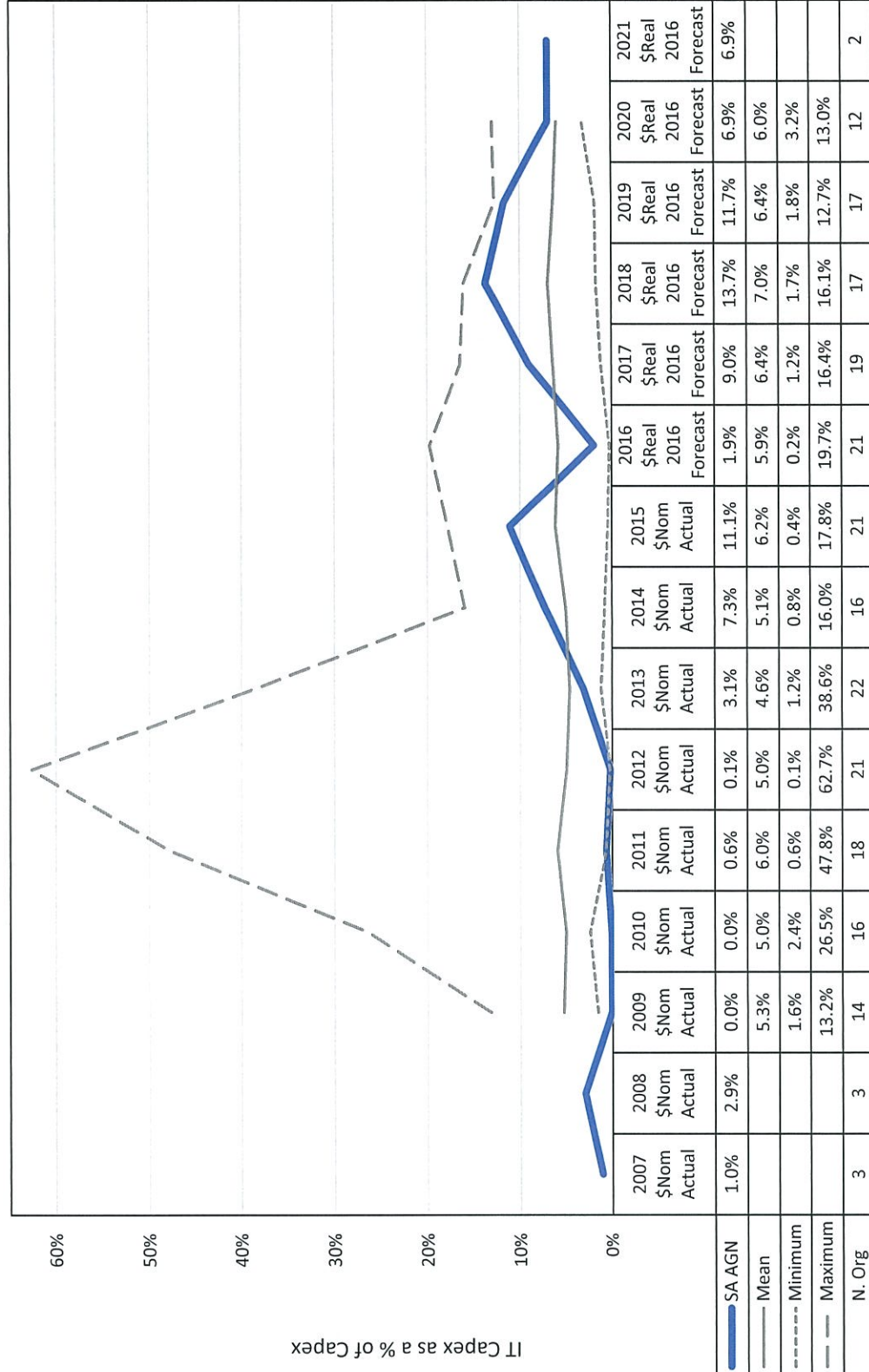
IT cost benchmarking – IT Capex V. IT Capex as a % of Capex

This benchmark reflects an organisation's level of IT capital investment as well as the timing of IT investment cycles to industry. The 2012 peak in the benchmark maximum reflects an IT transformation program of an utility organisation.

AGN SA's IT capital investments in the previous AAP and in the early years of the current AAP have been below the industry mean.

The two peak IT periods (2014 to 2015 and forecasted from 2017 to 2019) are consistent with AGN SA's planned IT Capex investment strategy, following the under-investment in the previous AAP.

Overall, the results indicate AGN SA's IT Capex level has been below industry and will trend in line with industry, following the IT Capex investment peaks.



■ The benchmark is calculated as IT capital expenditure divided by the capital expenditure of AGN SA.

■ The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.

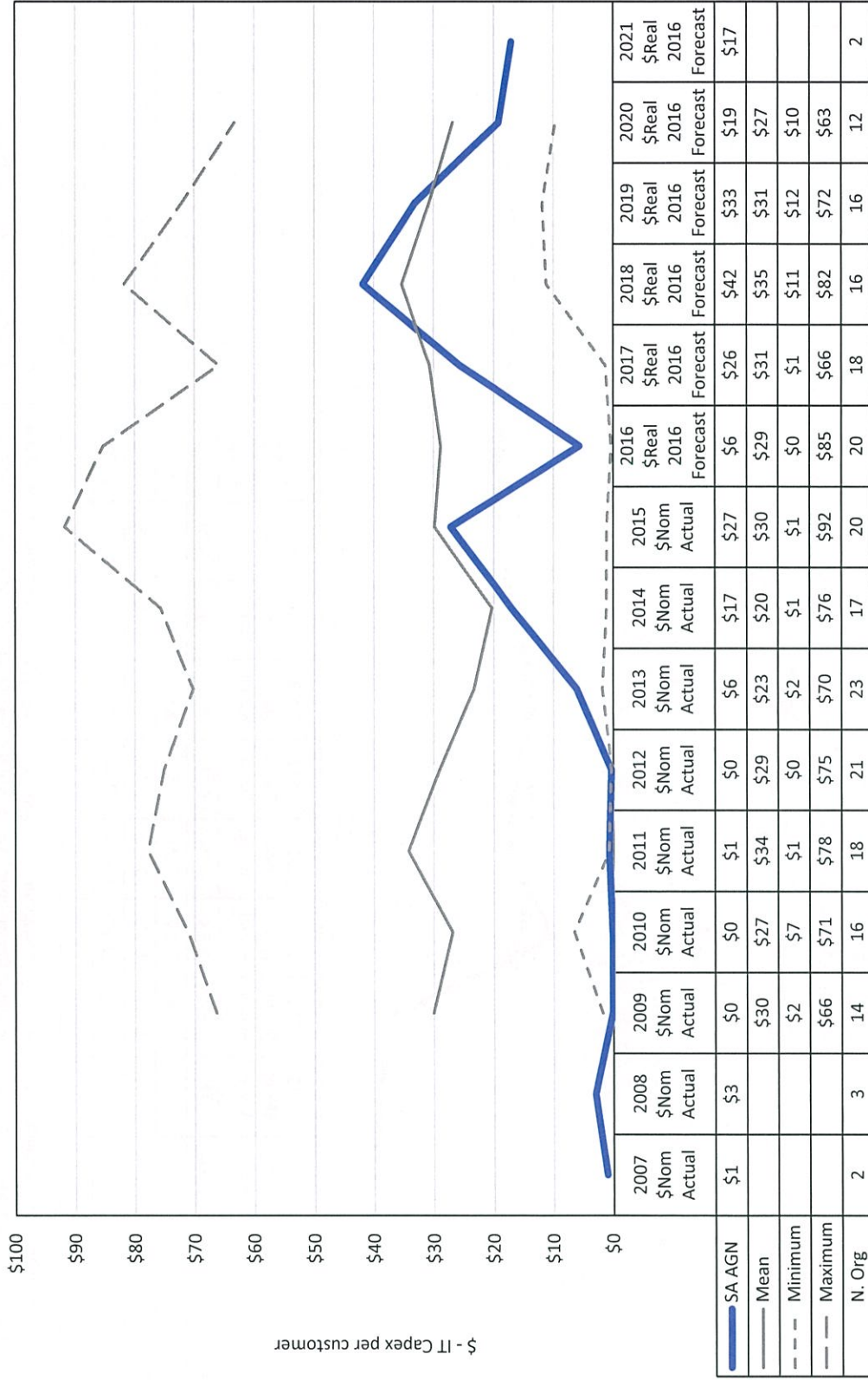
■ The weighted average is calculated as the sum of IT capital expenditures, divided by the sum of capital expenditures of benchmarked organisations.

IT cost benchmarking – IT Capex VI. IT Capex per customer

This benchmark compares the level of IT capital expenditure per customer (property supplied). This benchmark also reflects an utility organisation's investment cycles.

AGN SA has been the lowest and below the industry mean, prior to the IT Capex forecast peak in 2018 and 2019. The planned IT Capex over the next AAP will enable AGN SA to catch-up to industry IT expenditure level.

The results suggest AGN SA's IT Capex are, in general, comparably below the industry.



■ The benchmark is calculated as IT capital expenditure divided by the number of properties supplied by AGN SA at the end of the year.

■ The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.

■ The weighted average is calculated as the sum of IT Capex, divided by the sum of number of properties supplied by the benchmarked organisations at end of year.

IT cost benchmarking – IT Opex

VII. IT Opex as a % of Opex

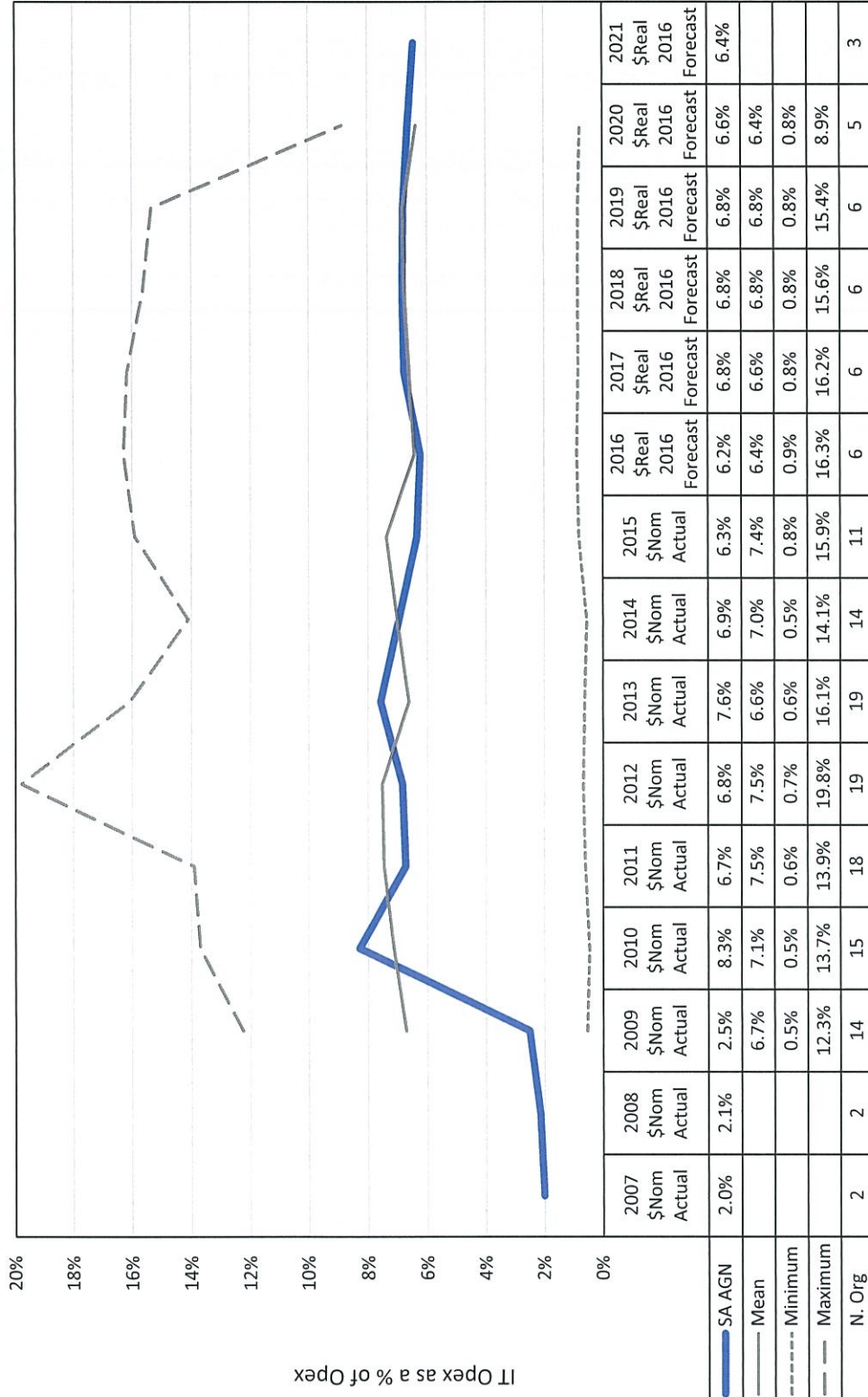
This benchmark provides an indication on organisation's share of IT operating activities in delivering utility services.

The utility industry has generally maintained a stable level of IT Opex and has forecasted to remain stable into the next AAP.

AGN SA's level of IT Opex has been significantly below the industry in the first three years of the previous AAP.

The increase from 2010, brought the level of IT Opex in line with industry in the current AAP and has forecasted to remain in line with industry over the next AAP.

The benchmark results show the IT Opex of AGN SA is comparably efficient with the industry.



- The benchmark is calculated as IT operating expenditure (exc. dep) divided by AGN SA's operating expenditure (exc. dep).
- The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.
- The weighted average is calculated as the sum of IT operating expenditure (exc. dep), divided by the sum of operating expenditures (exc. dep) of the benchmarked organisations.

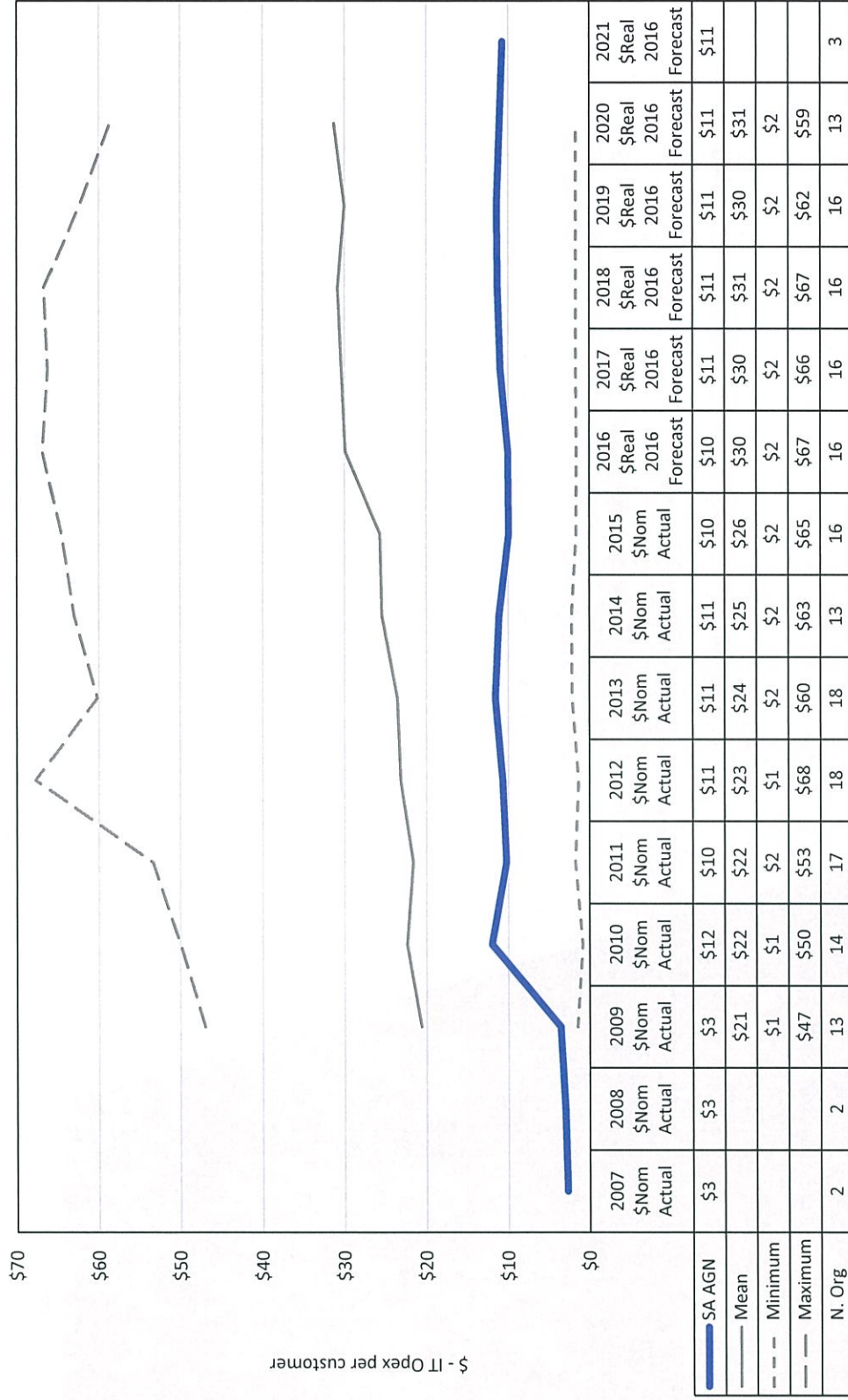
IT cost benchmarking – IT Opex

VIII. IT Opex per customer

This benchmark compares the level of IT Opex per customer (property supplied).

AGN SA's IT Opex per customer has been at the lowest industry level before increasing to a stable level in 2010. The level of IT Opex has been below industry mean and to remain below the industry mean over the next AAP.

Based on the results, AGN SA's IT Opex can be considered efficient when compared to the industry.



- The benchmark is calculated as IT operating expenditure (exc. dep), divided by the number of properties supplied by AGN SA at the end of the year.
- The mean line in the graph above represents the weighted average of the benchmarked organisations, the mean is calculated when there are data available from three or more organisations for the year.
- The weighted average is calculated as the sum of IT operating expenditure (exc. dep), divided by the sum of number of properties supplied by the benchmarked organisations at end of year.

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Appendix A AGN SA data

The AGN SA benchmarks compared to the utility industry have been calculated based on the data presented on the right.

AGN SA has provided their IT and gas business expenditures data and their customer numbers data for a 15-year period, from FY2006/07 to FY2020/21, covering their previous, current and future AAPs.

Financial data is consistent with the AA RIN, provided on a nominal basis, from 2006/07 – 2014/15 and in \$2015/16 from 2015/16 – 2020/21.

The data reflects that provided by AGN to the AER on 1 July 2015 within its AA Proposal and has not been updated for the Revised AA Proposal.

Year	FY 2006-2007	FY 2007-2008	FY 2008-2009	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014	FY 2014-2015	FY 2015-2016	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	
	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Nom Actual	\$Real 2016 Forecast	\$Real 2016 Forecast	\$Real 2016 Forecast	\$Real 2016 Forecast	\$Real 2016 Forecast	\$Real 2016 Forecast	
Capital Expenditure (\$000)																
IT Capex	352	1,107	0	0	228	72	2,508	7,174	11,612	2,386	11,109	18,353	14,688	8,611	7,730	
Total Capex	34,025	38,027	37,223	34,631	39,075	55,789	81,543	98,399	104,579	128,546	123,789	134,202	125,838	124,567	111,642	
Operating Expenditure (\$000)																
IT Opex	991	1,113	1,344	4,711	4,086	4,343	4,787	4,673	4,222	4,279	4,717	4,916	5,028	4,935	4,844	
Total Opex	49,644	52,185	53,990	56,973	60,824	63,650	63,372	67,291	66,720	68,787	69,876	72,173	74,139	74,432	75,268	
Customer Numbers																
Customer	374,387	381,255	388,174	395,256	403,449	410,670	417,198	423,437	429,466	430,936	434,227	439,407	444,804	450,582	456,554	

KPMG has compared AGN SA's IT expenditure benchmarks to a set of industry group benchmarks. The group consists of the twenty four Australian gas, electricity and water distribution utilities as indicated on the right.

AGN SA's results are compared to the benchmark means of the group. The means are calculated as the weighted average for the year, where there are data available from three or more utilities.

The data, ranging from 5 to 15 years, have been sourced from publicly available company or regulatory data sources and KPMG utilities benchmarking.

Scope and sources of Data

The industry IT expenditure and forecasts data have been sourced from the following:

DNISP	State	Data	Years	Regulatory Data Period
Gas Distribution				
Australian Gas Networks	South Australia	Provided by AGN SA	2007 to 2021	
Jemena	New South Wales	Access Arrangement – PTRM, RFM, KPMG Benchmarking Data	2016 to 2020	Financial years 1 July to 30 June
ActewAGL	Australian Capital Territory	Access Arrangement Reset RIN Master	2007 to 2020	
ATCO Gas	Western Australia	Access Arrangement Tariff Model	2007 to 2019	
Australian Gas Networks	Queensland	Access Arrangement Final Decision	2012 to 2016	
Allgas	Queensland	Access Arrangement - RFM	2012 to 2016	
Australian Gas Networks	Victoria	Access Arrangement – PTRM, RFM	2013 to 2017	Calendar years 1 Jan to 31 Dec
Multinet Gas	Victoria	Access Arrangement – PTRM, KPMG Benchmarking Data	2013 to 2017	
Ausnet Services	Victoria	Access Arrangement – RFM	2013 to 2017	
Electricity Distribution				
Energex	Queensland			Financial years 1 July to 30 June
Ergon Energy	Queensland			
ActewAGL	Australian Capital Territory			In general: 2009 to 2020
Ausgrid	New South Wales	AER RINs:		
Endeavour Energy	New South Wales	• Categories Analysis RIN;		
Essential Energy	New South Wales	• Economic Benchmarking RIN;		
SA Power Networks	South Australia	• Reset RIN;		
TasNetworks (Distribution)	Tasmania	KPMG Benchmarking data:		
CitiPower	Victoria	• 2013 Utilities Benchmarking Survey;		
Powercor	Victoria	• IT expenditure for EDPR determinations		
Ausnet Services	Victoria			Calendar years 1 Jan to 31 Dec
Jemena	Victoria			
United Energy	Victoria			
Water Distribution				
SA Water	South Australia	KPMG Benchmarking data	2013 to 2020	Financial years 1 July to 30 June
Melbourne Water	Victoria	KPMG Benchmarking data	2012 to 2021	

Expenditure Data (\$000)	
Capital Expenditure (Capex)	
Distribution Capex	Gas distribution system capital expenditure (Capex) and forecasts, other than non-distribution system and IT Capex. Including connection, market expansion, mains augmentation, mains replacement, telemetry, meter replacement, regulators and distribution system Capex.
Non-Distribution Capex	Capex relating to motor vehicles, properties, etc., not relating to gas distribution system Capex.
IT Capex	Capital expenditure and forecasts for IT and communications directly attributable to IT and communications assets, including Capex relating to client devices, recurrent and non-recurrent categories.
Operating Expenditure (Opex (exc. Depreciation))	
Distribution Opex	Gas distribution system operating expenditure (Opex) and forecasts, other than non-distribution system and IT Opex. Including expenditure for connection market expansion, mains augmentation, mains replacement, telemetry, meter replacement, regulators and distribution system Opex.
Non-Distribution Opex	Opex relating to motor vehicles, properties etc., not relating to gas distribution Opex.
IT Opex	Operating expenditure and forecasts for IT and communications directly attributable to IT and communications assets, including Opex relating to client devices, recurrent and non-recurrent categories.
Total Expenditure (Totex)	
Totex	Sum of Capex and Opex (exc. Depreciation).
Volume / Drivers	
Number of customers	Number of properties (DPI) supplied by the gas distribution network at the end of the year.



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