

Victoria and Albury Draft Plan

Workshop 1: Overview, Opex and Capex

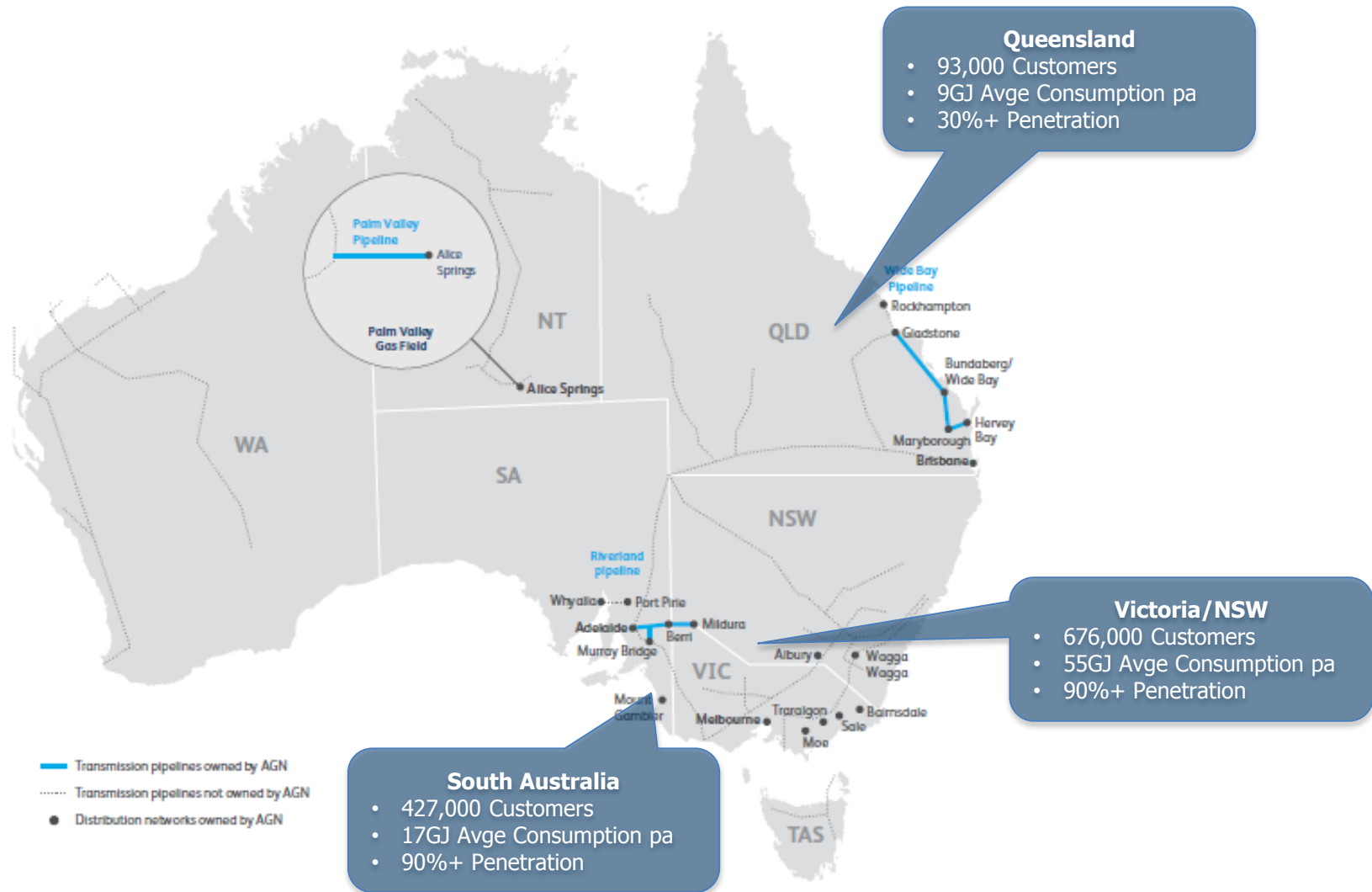
23 August 2016

Agenda

- **Overview**
 - About AGN
 - The AGN Vision
 - What we will Deliver
 - Purpose of the Draft Plan
 - Stakeholder engagement
 - Delivering our Final Plan
- **Operating Expenditure**
 - Overview of proposal
 - Forecasting approach
- **Capital Expenditure**
 - Overview of proposal
 - Forecasting approach
- **Next Steps**

Overview

AGN Operates Networks in Most Australian States and Territories



Our vision

Our vision is to be the leading natural gas distributor in Australia...

Delivering for customers



Public Safety

Reliability

Customer Service

A good employer



Safety

Employee Engagement

Skills Development

Sustainably cost efficient



Working Within Industry Benchmarks

Delivering Profitable Growth

...achieving top quartile performance on our targets

Overview | What we Delivered in South Australia

- We recently completed the South Australian Access Arrangement (AA) for 2016-2021
- Plans were informed by stakeholder engagement
- 23% upfront price cut (coming off a Weighted Average Cost of Capital of 10.3%)
- Opex and capex almost entirely accepted by the Australian Energy Regulator (AER)
- AGN accepted the AER's Final Decision
- Agreed positions have been applied to this Victorian and Albury Review

"More than 400,000 SA households and businesses are set to benefit from a drop in gas prices."
(Channel 10 Adelaide)

"... we think this [decision] is actually good for the state's economy."
(Mark Henley (Uniting Communities), Channel 7 Adelaide)

Prices in South Australia are down \$144 (domestic) and \$750 (small business)

Overview | What We Have and What We Will Deliver

Which means...

Delivering for Customers

- Public Safety
- Reliability
- Customer Service

2013 – 2017 Actuals/Estimates

- Emergency calls: 92% answered in 10 seconds
- Customer calls: 80% answered in 30 seconds
- Leaks: 95% attended in two hours
- Average 18 interruptions to 5+ customers per annum
- Around 16,000 new connections per annum
- Stakeholder engagement program implemented

2018 – 2022 Targets

- Maintain high performance levels
- Improve safety and maintain reliability
- Support customer growth (approximately 14,000 new connections per annum)
- Plans informed by stakeholder engagement
- Improve and strengthen network incentives

A Good Employer

- Safety
- Employee engagement
- Skills development

- Less than two Lost Time Injuries (LTIs) per annum
- Lost Time Injury Frequency Rate (LTIFR): 1.6 per annum, per million hours
- 100% compliance regarding employee refresher training and accreditation checks

- Continuous improvement:
 - LTIFR less than 1.0 per million hours
 - Restricted duties rate: less than 15 days
- Implementation of employee engagement program
- Training and compliance monitoring

Sustainably Cost Efficient

- Doing work within industry benchmarks
- Delivering profitable growth

- 100% mains replacement program delivered (696km)
- Delivered network extensions to Merrifield, Koo Wee Rup and Wandong-Heathcote Junction.
- Outperformed operating expenditure and capital expenditure

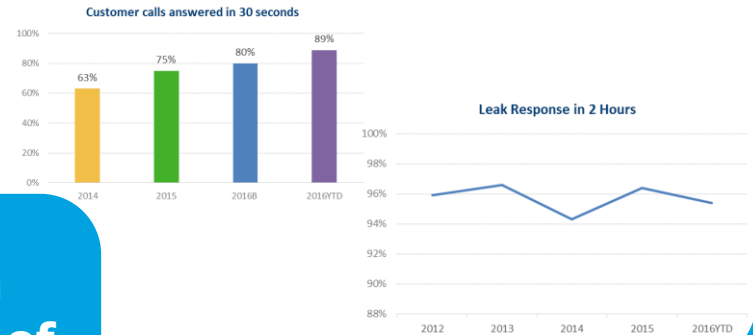
- Complete low pressure mains replacement program (307km)
- Lower costs and network tariffs in real terms – 11% upfront price reduction
- Continue to deliver leading productivity performance (by lowering expenditure relative to current levels)

Overview | Victorian and Albury AA Plan

Effective Engagement

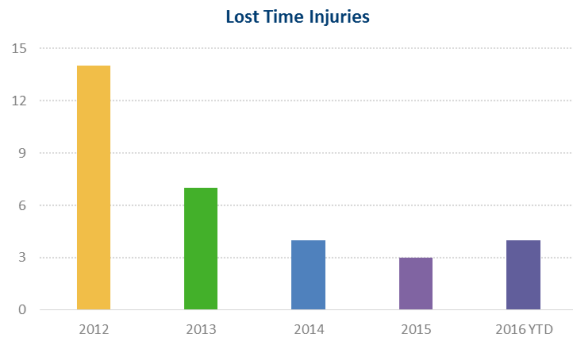


Delivering for Customers

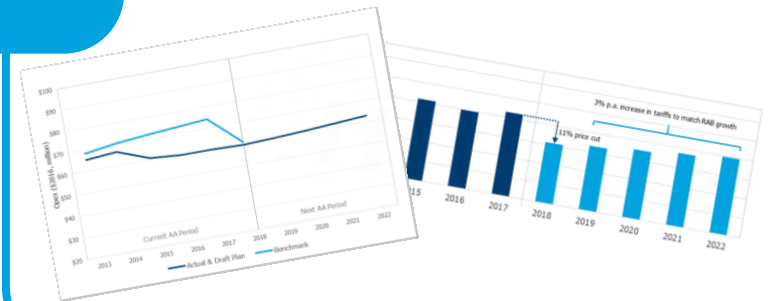


Delivering an initial price cut of 11% to our customers

A Good Employer



Sustainably Cost Efficient



Lower prices, lower costs, continuous service improvement

Overview | Purpose of the Draft Plan

- We published our Draft Plan for the next (2018 – 2022) AA period on 5 July
- The key purpose of the Draft Plan is to facilitate improved engagement on our business plans
- The Draft Plan outlines:
 - How feedback received so far has been incorporated into our Draft Plan
 - The activities and expenditure we propose to undertake in the next AA period
 - Future prices and revenue we intend to recover
 - Consultation questions for stakeholders
- Feedback will be incorporated in our final Victorian and Albury AA Proposal

AGN's intention is to submit an AA Proposal that is underpinned by effective stakeholder engagement and is capable of being accepted

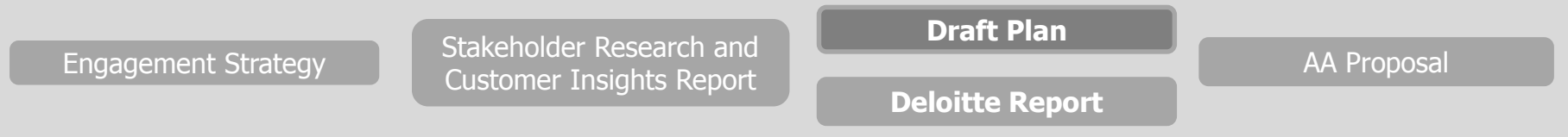
Overview | Stakeholder Engagement – Approach



Nov-15 ————— Mar-16 ————— Jun -16 ————— 2017+

Ongoing communications with key stakeholders

- Strategy Phase:**
 - Developed Scoping Paper
 - Established Victoria/Albury Reference Group
 - Liaised with key stakeholders
 - Developed engagement strategy
- Research Phase:**
 - Workshops with customers and retailers
 - Outcome of 9 customer insights
 - Developed and released Customer Insights Report
- Implementation Phase:**
 - Internal and external engagement on insights
 - Incorporation of insights into Draft Plan
 - Further workshops with stakeholders on Draft Plan
 - Consideration of Draft Plan feedback in development of AA Proposal
 - Ongoing engagement



Ongoing Engagement

Initial Research Phase

- CUSTOMERS RECRUITED ON THE BASIS OF AGE, GENDER, INCOME
- RESIDENTS AND BUSINESSES
- 78 PARTICIPANTS
- 6 WORKSHOPS

Customer Insights Report



Draft Plan



Further Research

- STAKEHOLDERS INVITED DIRECTLY AND INDIRECTLY
- RESIDENTS, BUSINESS, GOVERNMENT, INDUSTRY BODIES, REGULATORS
- 2 DRAFT PLAN WORKSHOPS
- FURTHER STAKEHOLDER WORKSHOPS
- ONE-ON-ONE MEETINGS

Deloitte Report



ONGOING ENGAGEMENT WITH REFERENCE GROUPS, REGULATORS AND OTHER KEY STAKEHOLDERS

Overview | Stakeholder Engagement – Engagement on Draft Plan

- The Draft Plan is an important part of our stakeholder engagement program
 - Seeking submissions from stakeholders (flexible on timing, any comment is beneficial)
 - Seeking ongoing engagement with our Reference Groups, the AER, Consumer Challenge Panel and Energy Safe Victoria
- Recent engagement activities:
 - Dedicated engagement on incentive arrangements
 - Presentation of Draft Plan to Reference Groups and AER
- Will conduct further engagement, including workshops with stakeholders

3. Do you have any suggestions as to how AGN could improve on and/or extend its stakeholder engagement program?

Overview | Purpose of Workshop and Next Steps

To proactively receive stakeholder feedback on our plans so this can be considered and reflected in our AA Proposal to the AER.

- Next steps:
 - Series of workshops to discuss Draft Plan and receive stakeholder feedback
 - One-on-one meetings with stakeholders
 - Further stakeholder workshops
 - Consideration and incorporation of feedback received in our AA Proposal

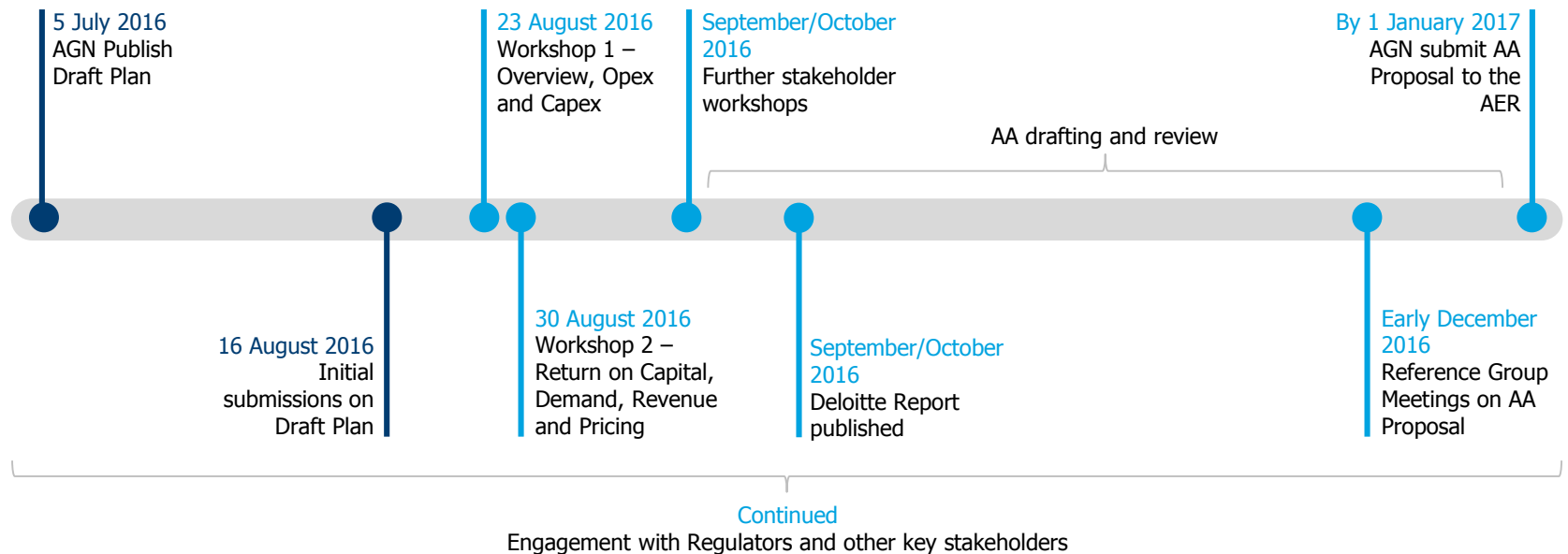
Stakeholder engagement is key to achieving our aim of submitting a plan that delivers for our customers and is capable of being accepted by the AER

Overview | Role of Deloitte

- Deloitte were engaged mid-last year to assist AGN with the design and delivery of its stakeholder engagement program
- Key role is to capture and report back to AGN and its stakeholders the feedback received from our engagement program
 - Have published alongside this Draft Plan the Deloitte Stakeholder Insights Report from first round of stakeholder workshops
- Deloitte will sit across all aspects of our stakeholder engagement program
 - Facilitates a comprehensive/consolidated reporting on all engagement outcomes
- We will share with all stakeholders the feedback from today's workshop to ensure that it has been accurately captured before it is considered by our management team

Overview | Process Through to Delivery of Final Plan

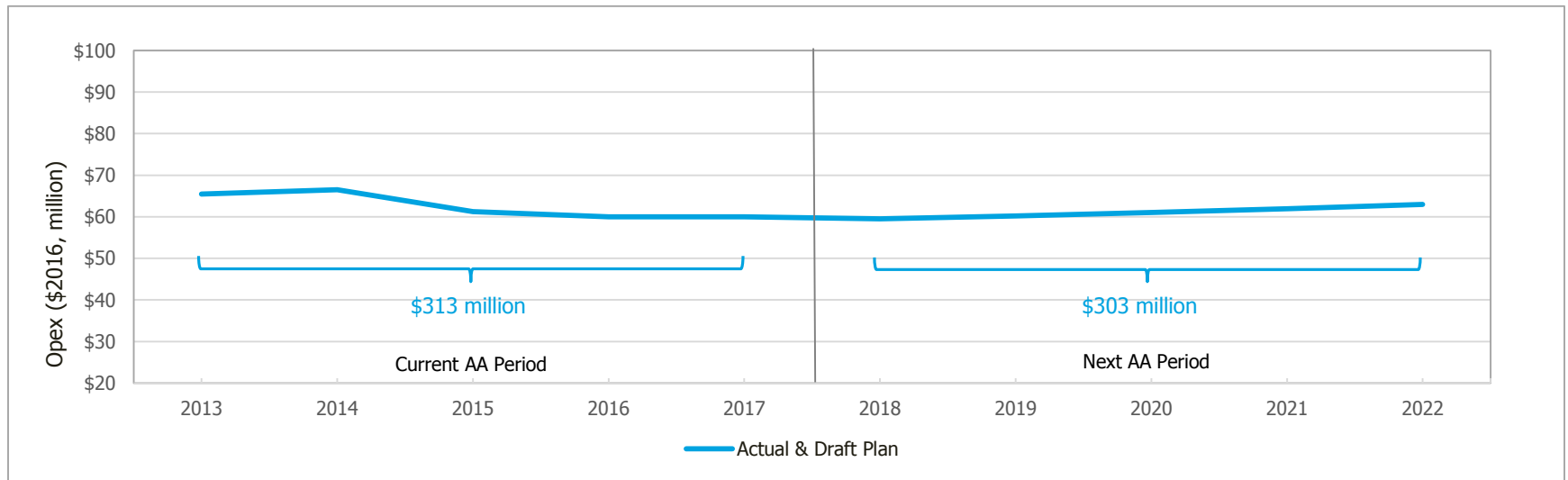
- Stakeholder workshops to further explain and discuss Draft Plan
- Dedicated engagement with key stakeholders, including, but not limited to, Reference Groups, the AER and Energy Safe Victoria



We are open to stakeholder feedback at any time

Operating Expenditure

Opex | Draft Plan Opex Forecast



- Have applied “Base Year Roll Forward” approach to forecasting opex
- Forecast opex is 3% (or \$10m) below current levels and 13% (or \$45m) below current period benchmarks

AGN is proposing to lower opex despite increasing customer numbers and input costs

Opex | AER's Forecasting Approach

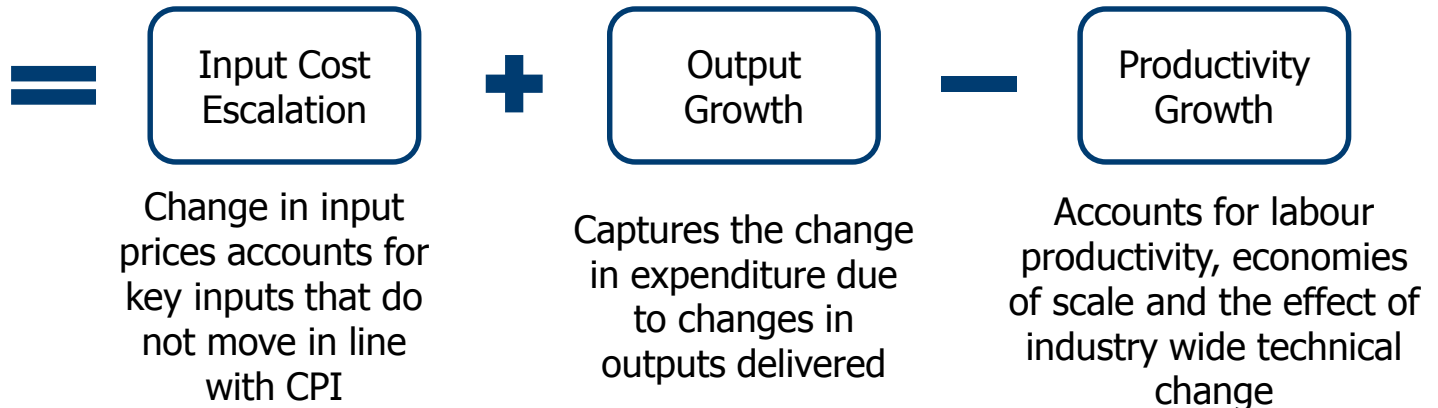
Base

AER typically uses the second to last year of the current AA period, as it will be the most recent data available to the AER at the time it makes its Final Decision.

Step

The AER accepts that in some instances, a service provider may face changes to opex not accounted for in base year opex or the 'trend'.

Trend



AGN has applied the AER's preferred approach wherever possible

Opex | Comparison to AGN's Draft Plan

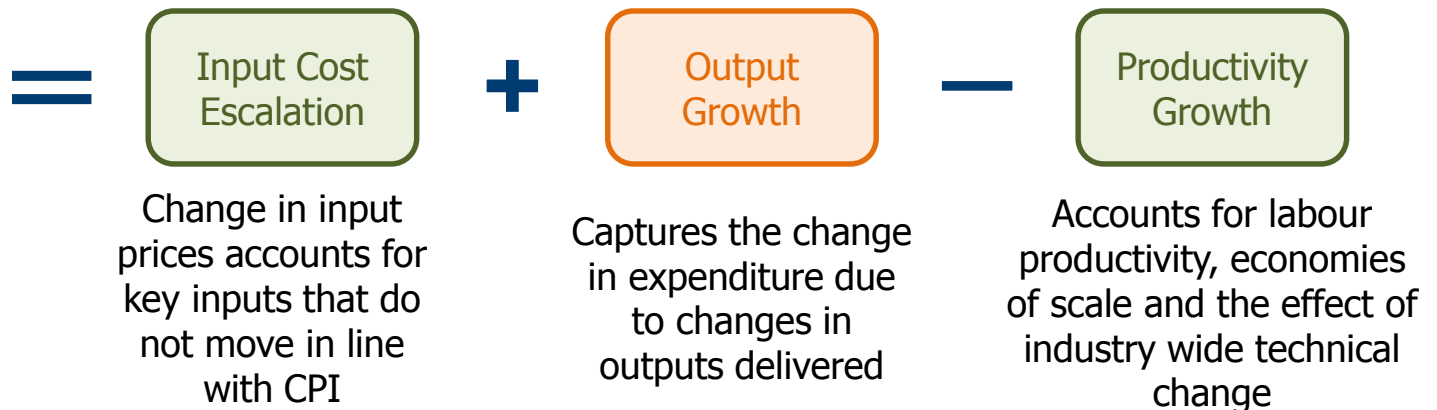
Base

AER typically uses the second to last year of the current AA period, as it will be the most recent data available to the AER at the time it makes its Final Decision.

Step

The AER accepts that in some instances, a service provider may face changes to opex not accounted for in base year opex or the 'trend'.

Trend



AGN has applied the AER's preferred approach wherever possible

Opex | Base Year

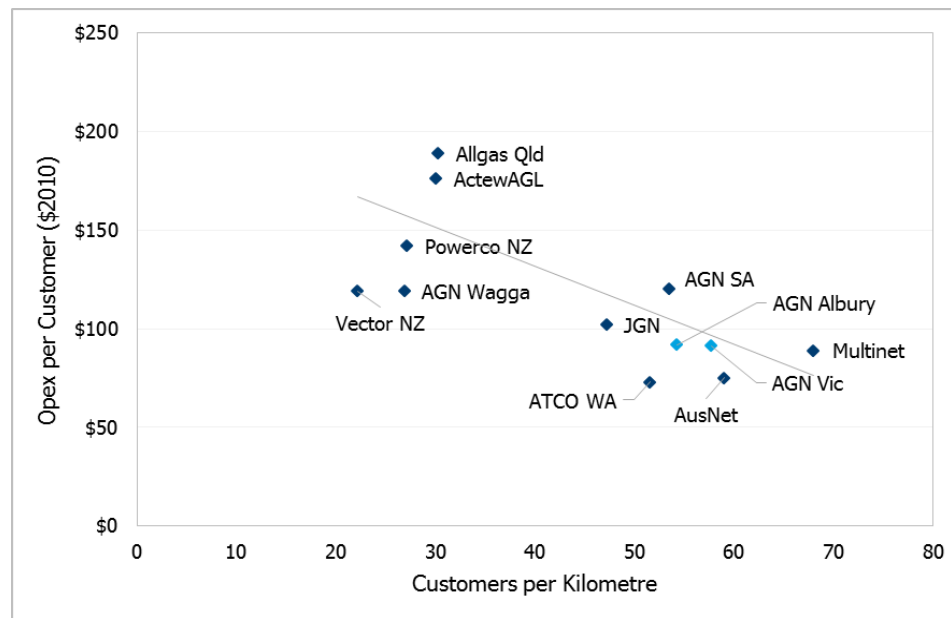
Base

Step

Trend

- ✓ Input Cost Escalation
- × Productivity Growth
- × Output Growth

- Consistent with AER's preferred approach, have used calendar year 2016 as base year
- Estimated base year opex in Draft Plan is \$56 million (\$2016) for Victoria and Albury
- Opex per customer relative to customer density (customers per km of pipe) shows strong productivity performance compared to industry



Source: Economic Insights 2016

Opex | Non-Base Year Opex

Base
Step
Trend

- ✓ Input Cost Escalation
- × Productivity Growth
- × Output Growth

- We have identified the following opex costs that we will incur over the next AA period

Cost	Opex Driven by Capex
\$0.8	Business Intelligence
\$0.6	Refurbish Dandenong-Crib Point Pipeline
\$0.4	Interval Meter Data Management
\$0.3	Transmission Pipeline Modification
\$0.2	Geospatial Information System (GIS)

Cost	Step Changes
\$2.0	Gas Assets Public Awareness Campaign
\$2.0	Pipeline Integrity Assessment
\$1.0	GasNet Custody Transfer Meter Charges
\$0.6	Transmission Asset Drawings Update
\$0.5	Environment Management Plans

Opex | Non-Base Year Opex

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- These opex costs have not been incorporated into the Draft Plan
- Intend to offset these costs with ongoing productivity gains over the next AA period
- By absorbing these non-base year opex costs, we are applying an implied productivity adjustment of 0.7% per year, over the next AA period
- Approach is also consistent with the preference of the AER to make limited adjustments to base year opex

AGN intends to absorb \$8 million in opex costs over the next AA period

8. Should the non-base year costs (not included in the Draft Plan) be added to our opex forecast or be absorbed by the business?

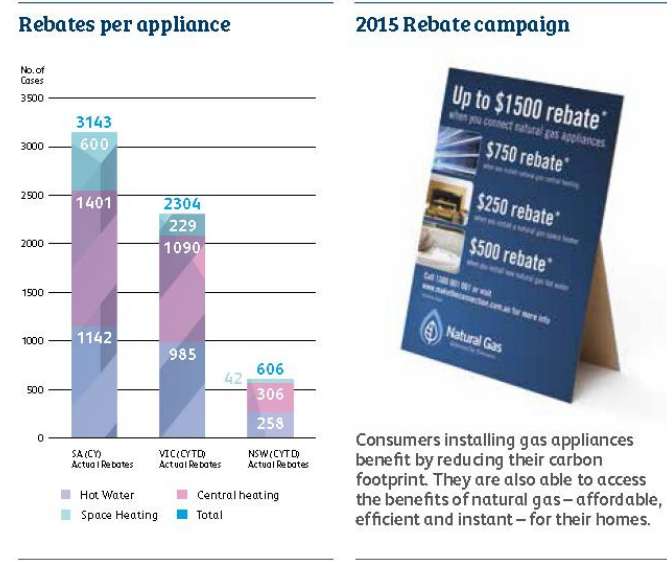
Opex | Marketing Program

Base
Step
Trend

- ✓ Input Cost Escalation
- × Productivity Growth
- × Output Growth

- Only non-base year cost included in Draft Plan relates to a \$5 million joint marketing program with the other two Victorian gas distributors in metropolitan Melbourne
- Currently, AGN conducts marketing activities in regional Victoria and South Australia only (no overlap with other businesses)
- Proposing to expand this program to incorporate metropolitan Melbourne, as a joint project with the other gas distributors, to ensure costs are allocated appropriately
- Marketing activities will include:

- Working with appliance retailers to offer incentives to customers for connecting new gas appliances to our network (through provision of rebates)
- Mass media (such as advertising campaigns)



Opex | Why Do We Need Marketing?

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- Marketing is required as natural gas is a fuel of choice (i.e. competes with electricity)
 - There are readily available substitutes for residential and business uses of natural gas
 - Competitive pressures faced by AGN expected to increase as a result of increasing renewable electricity and storage
- Marketing program will increase the usage of our network, spreading fixed costs across more customers
- This is also consistent with what we heard from customers who told us they would like AGN to be more visible
- Increasing the number of connections will deliver lower prices to existing customers in the medium to long-term

“Marketing can help AGN drive new customers to the network and retain existing customers, ultimately putting downward pressure on network prices” Jemena Gas Networks August 2016

Opex | Summary of Marketing Program

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- Currently deliver the same program in regional Victoria and throughout South Australia (i.e. in areas where we are the only distributor)
 - Jemena Gas Networks deliver similar program in NSW (approved by the AER)
- Proposing to expand this program to incorporate metropolitan Melbourne, as a joint project with the other two Victorian gas distribution businesses
 - Contingent on other two gas distribution businesses committing to this joint program
- Currently developing analysis in order to understand and ensure that any costs incurred in delivering marketing activities will be outweighed by benefits from additional customer connections and demand on our network
- Why do we need an allowance? – Because benefits will be passed to customers after the five year regulatory period

9. Do you support our proposal to expand our marketing program over the next AA period?

Opex | Approach to Input Cost Escalation

Base
Step
Trend

- ✓ Input Cost Escalation
- × Productivity Growth
- × Output Growth

- Applied AER’s preferred approach:
 - ✓ Opex resource mix of 62% labour and 38% materials
 - ✓ Forecast growth in real materials costs of zero
 - ✓ Wage Price Index (WPI) used as basis to developing forecast labour cost increases
 - ✓ Electricity, Gas, Water and Waste Services (EGWWS) industry used
 - ✓ Average of BIS Shrapnel and Deloitte Access Economics forecasts applied
- Contribution of input cost escalation is 2% of total opex

Escalation Rate	Weight	2017	2018	2019	2020	2021	2022
Labour	62%	0.7%	1.0%	0.9%	1.0%	1.4%	1.5%
Materials	38%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Weighted Input Cost Escalation Rate		0.4%	0.6%	0.5%	0.6%	0.8%	0.9%

Opex | Approach to Output Growth

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- Deviated from AER's preferred approach
- AER's preferred approach detailed in Expenditure Forecast Assessment Guideline (developed for electricity distribution businesses)
 - Has been applied in some cases to gas businesses
 - Not applied in our most recent South Australian AA review process
- AER's approach is as follows:
 - Use two output variables; growth rate in customer numbers and throughput
 - 45% weight given to customer numbers, 55% to throughput
 - Growth rates of each variable are combined to produce a total output growth rate, used as an input into the Rate of Change formula (applied to base year opex)

Opex | Approach to Output Growth

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- AER's approach assumes that changes in these variables have an impact on the level of opex incurred by gas distribution businesses
 - ✓ *Customer numbers* – would expect opex to increase as customer numbers increase (e.g. more assets to maintain, more meters to read etc.)
 - × *Throughput* – wouldn't expect changes in the volume of gas delivered to customers to impact on the level of opex incurred
- ACIL Allen has found that throughput and opex have an inverse relationship (i.e. a positive growth rate in throughput implies a reduction in opex incurred by a business)
 - ACIL Allen do not support using throughput as an output variable

"... gas throughput has been declining for the majority of the distribution businesses over the period of 2005 to 2013, while opex has continued to increase. This suggests that energy (gas throughput) is no longer a key driver of increasing operating expenses..." ACIL Allen 2015

Opex | Approach to Output Growth

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- AGN's approach is as follows:
 - Only one output variable (customer numbers)
 - Apply an "*incremental cost per customer*" value, as detailed in the Victorian Gas Distribution System Code (page 44)
 - Multiply forecast number of net new customer connections by the "*incremental cost per customer*" to calculate additional opex to be incurred by AGN over the next AA period
- This approach is consistent with technical and economic evidence, is simply to understand and consistent with that used most recently for our Victorian and South Australian networks

10a. Do you consider that increases in opex attributable to the growth of our network are appropriately captured through growth in customer numbers (or should growth in throughput also be accounted for)?

10b. Should any output growth factor that is developed for gas distribution be subject to industry-wide consultation before it is introduced?

Opex | Approach to Productivity Growth

Base

Step

Trend

✓ Input Cost Escalation

× Productivity Growth

× Output Growth

- The AER's preferred approach is to apply a forecast of productivity growth to opex
- AGN considered this approach and worked with external consultants to develop cost function analysis in order to produce estimates of productivity growth over the next AA period
- Cost function analysis produced a **negative forecast of productivity growth** (i.e. productivity expected to decline over the next AA period)
- This could be due to:
 - Small sample size of gas distribution businesses in Australia
 - High correlation among variables

Opex | Approach to Productivity Growth

Base

Step

Trend

✓ Input Cost Escalation

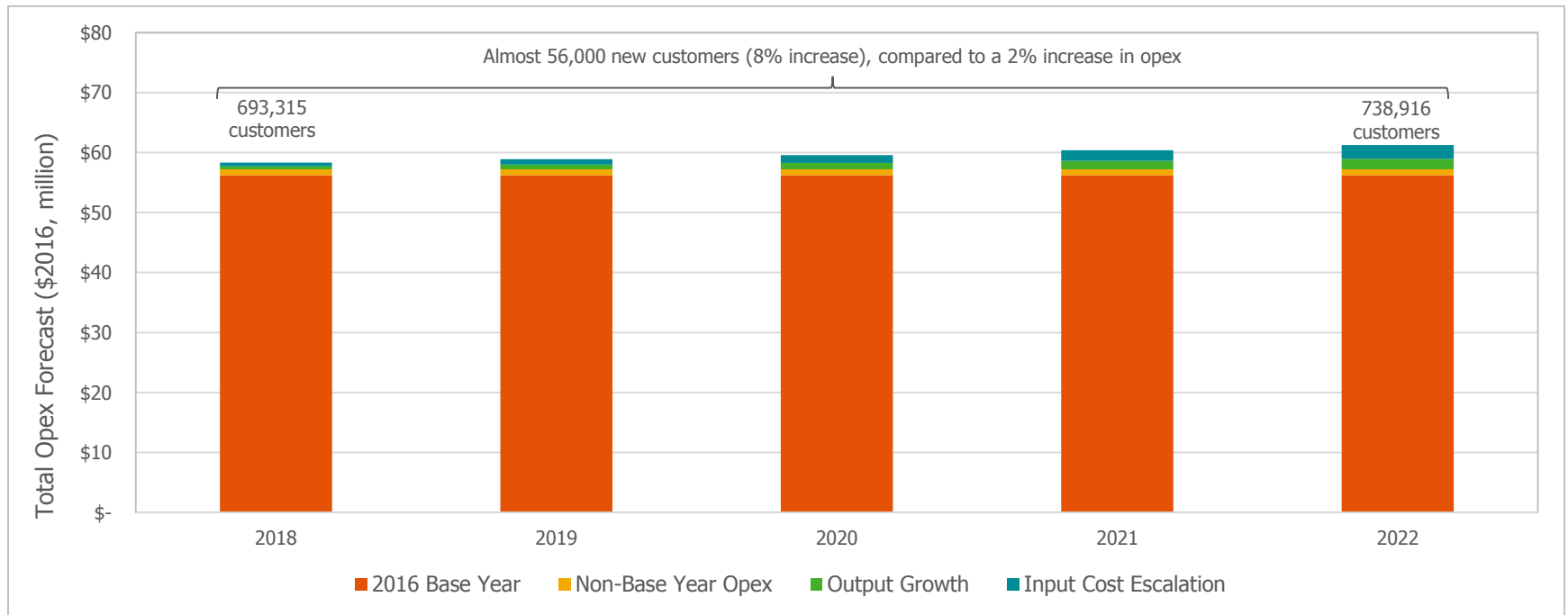
× Productivity Growth

× Output Growth

- Applying a negative productivity growth forecast to total opex, provides for an increase in total opex over the next AA period
 - As a result, AGN has not applied a productivity growth forecast in the Draft Plan
- We have however considered that any future productivity gains will be able to offset the increased costs associated with opex non-base year projects (\$8 million)
 - This equates to an implied productivity adjustment of 0.7% per year

Opex | Build-Up of AGN's Draft Plan Opex

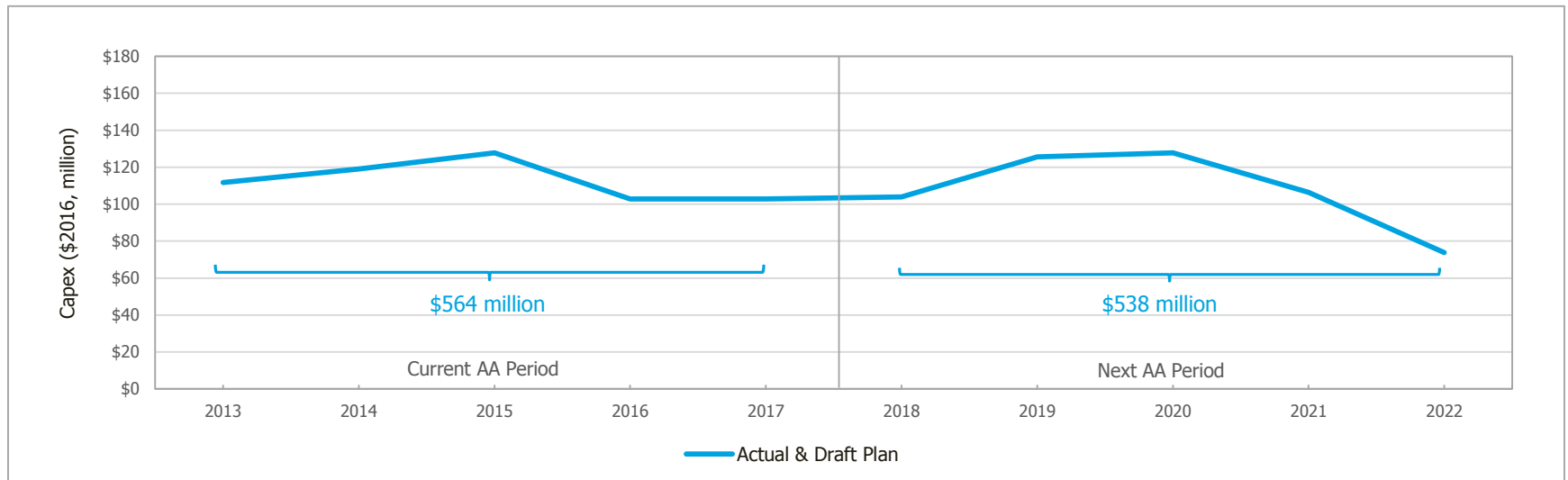
- 2016 base year contributes 94% to total opex over the next AA period



7. Do you consider we have applied an appropriate approach to forecasting opex?

Capital Expenditure

Capex | Draft Plan Capex Forecast

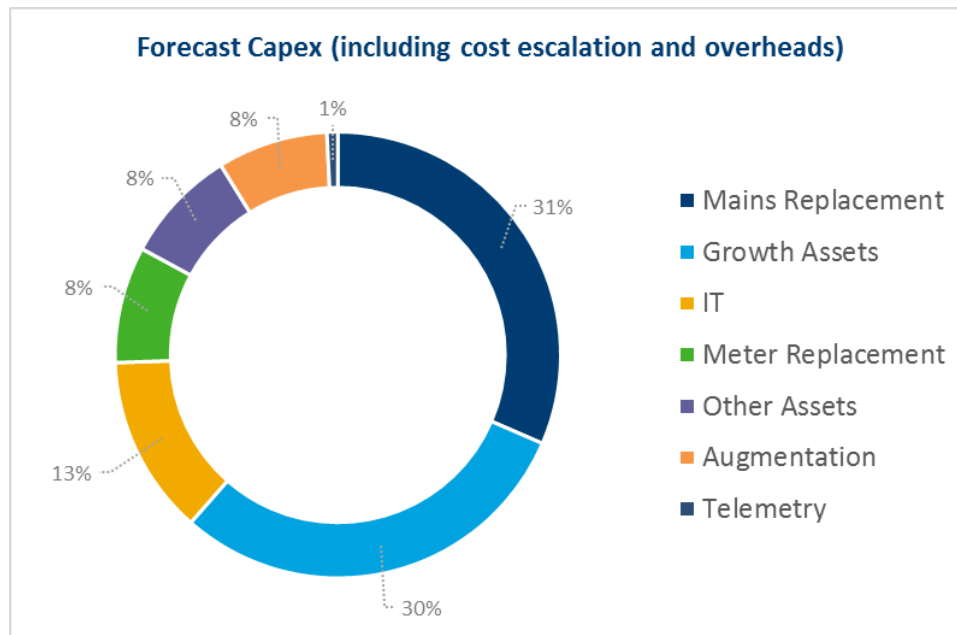


- Proposed capex over the next AA period is \$538 million, approximately 5% (or \$26m) below current levels and 6% (or \$37m) below current period benchmarks
 - Driven by completion of low pressure mains replacement program
- Key augmentation and IT projects delivered in 2019 and 2020 contributing to capex 'hump'

“Stay in business” well-justified capex proposal

Capex | Forecasting Approach and Principles

- Bottom-up forecasting methodology, consisting of capex driver categories
- Forecasting approach used depends on the capex driver category
- Where possible, have utilised the AER's approach taken in our recent South Australian AA review
 - Includes reliance on tendered and/or actual cost information



Capex | Capex Driver Categories

- Focus of this section will be in relation to key capex driver categories:
 - Growth Capex (30% of total capex, unit rate x volume)
 - Information Technology (13% of total capex, discrete projects)
 - Meter Replacement (8% of total capex, unit rate x volume)
 - Augmentation (8% of total capex, discrete projects)
- Following feedback from Reference Group, have not included Mains Replacement (31% of total capex) given direct engagement with Energy Safe Victoria

Would you like to know more about our Mains Replacement proposal?

Is there any other element of our capex proposal that you would like to discuss further at a later date?

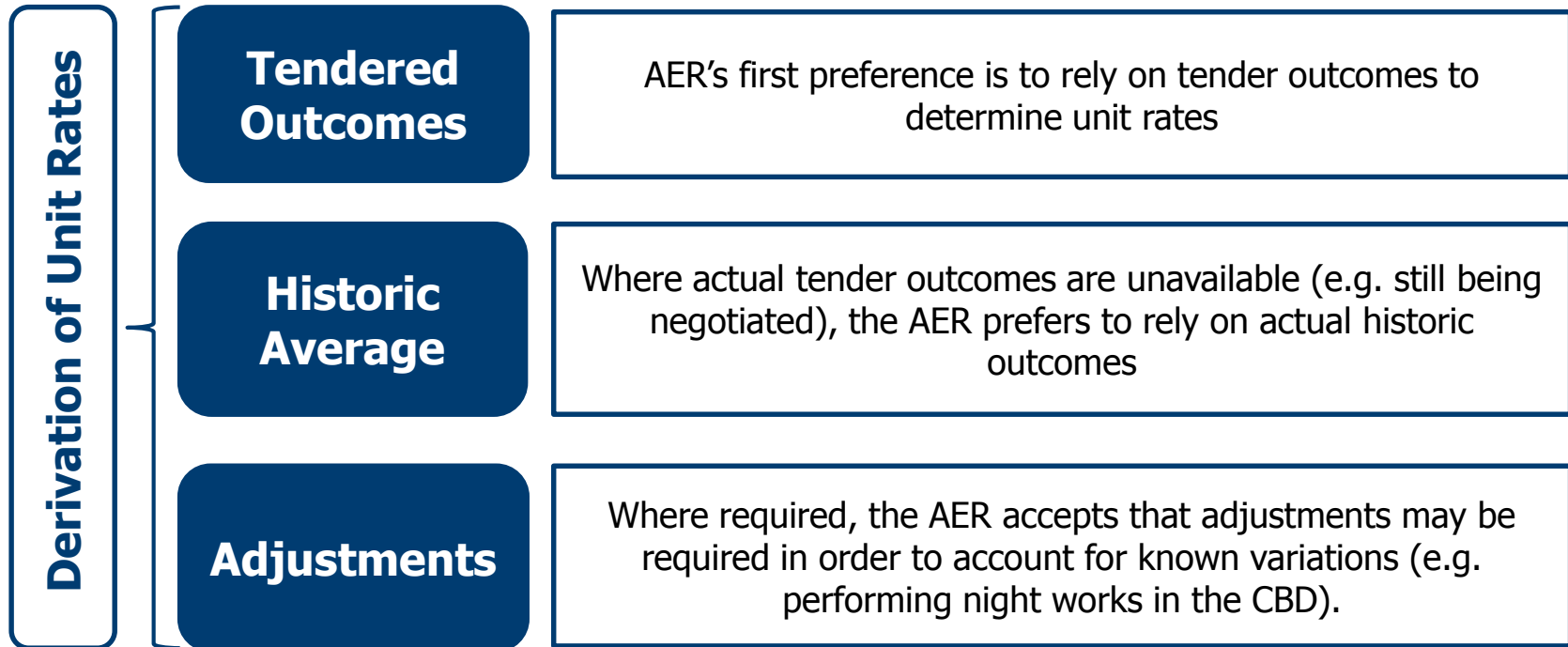
Capex | Forecasting Approach and Principles

- Two key approaches used to develop bottom-up capex forecast
 - Unit Rate x Volume
 - Discrete projects detailed in individual Business Case documents
- Both approaches accepted by the AER in our South Australian AA review

AGN has applied the approach accepted by the AER in our SA AA review wherever possible

Capex | Unit Rates

- Unit rates are a key component of derivation of expenditure



AGN has applied the AER's preferred approach wherever possible

Capex | Forecasting Approach and Principles

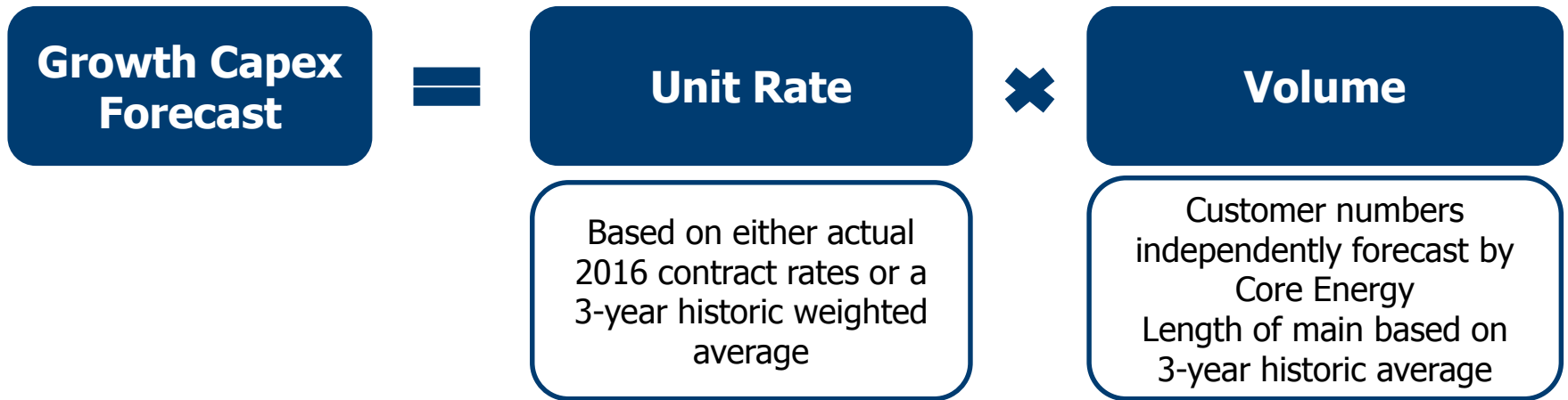
Capex Driver Category	Total	Forecasting Approach
Mains Replacement	\$151.1m	Unit rate x volume of kilometres to be replaced
Growth	\$142.3m	Unit rate x volume of new mains, services and meters
Information Technology	\$62.4m	Discrete projects detailed in individual Business Cases
Meter Replacement	\$40.1m	Unit rate x volume of meters to be replaced
Other	\$39.6m	Discrete projects detailed in individual Business Cases
Augmentation	\$38.3m	Discrete projects detailed in individual Business Cases
Telemetry	\$3.8m	Discrete projects detailed in individual Business Cases
Input Cost Escalation	\$10.8m	AER preferred approach (consistent with approach in opex)
Overheads	\$50.1m	AER approach used in SA AA Final Decision
Total	\$538.5m	

Forecasting Approach = Unit Rate x Volume

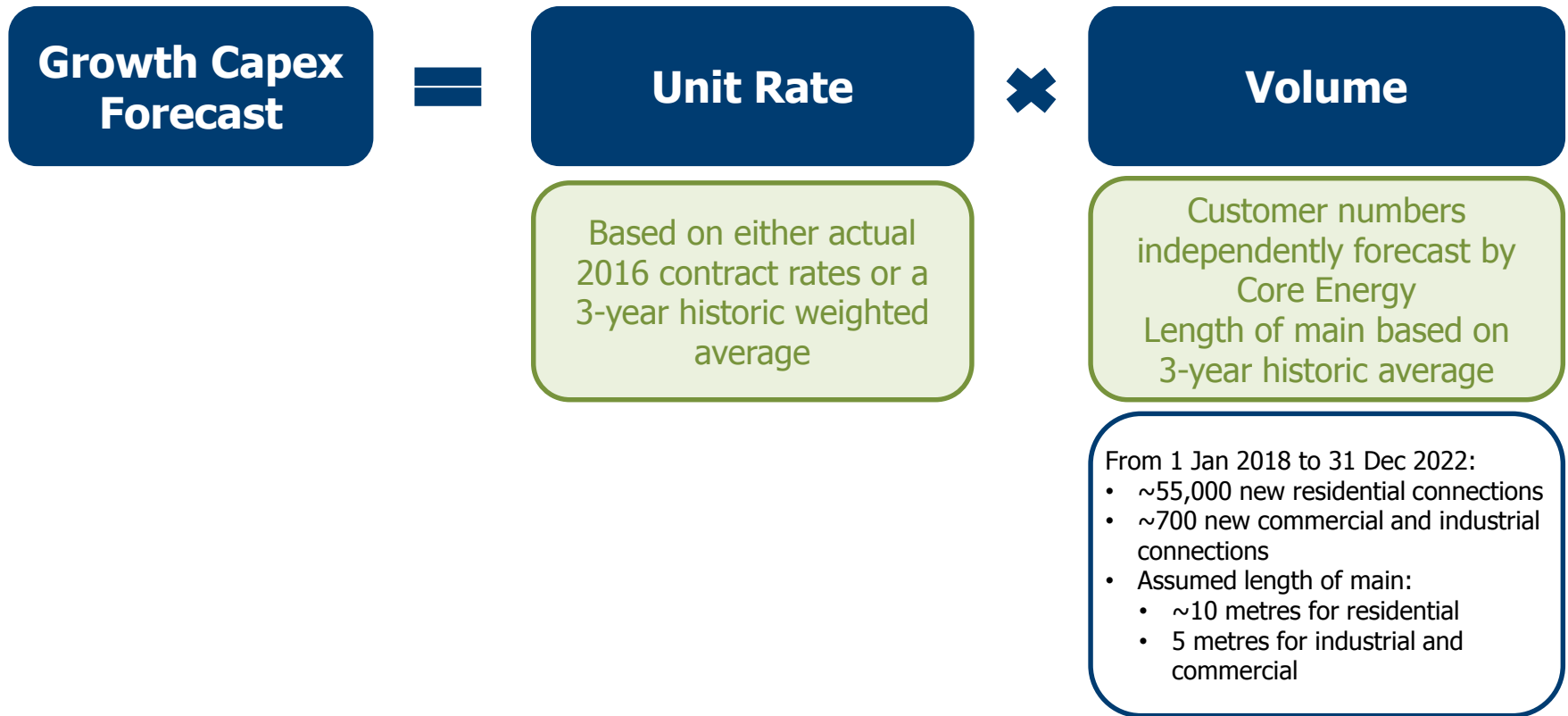
- \$142 million over the next AA period (30% of total capex)
- Related to the costs to connect new customers to the network
- Essentially three elements:
 1. *Mains* – extension of network to the new customer
 2. *Services* – provision of service (inlet) to the new customer
 3. *Meters* – installation and commissioning meter at the new customer site

Customer growth leads to lower prices by spreading the largely fixed costs of operating our network across a larger customer base

Capex | Growth



Capex | Growth

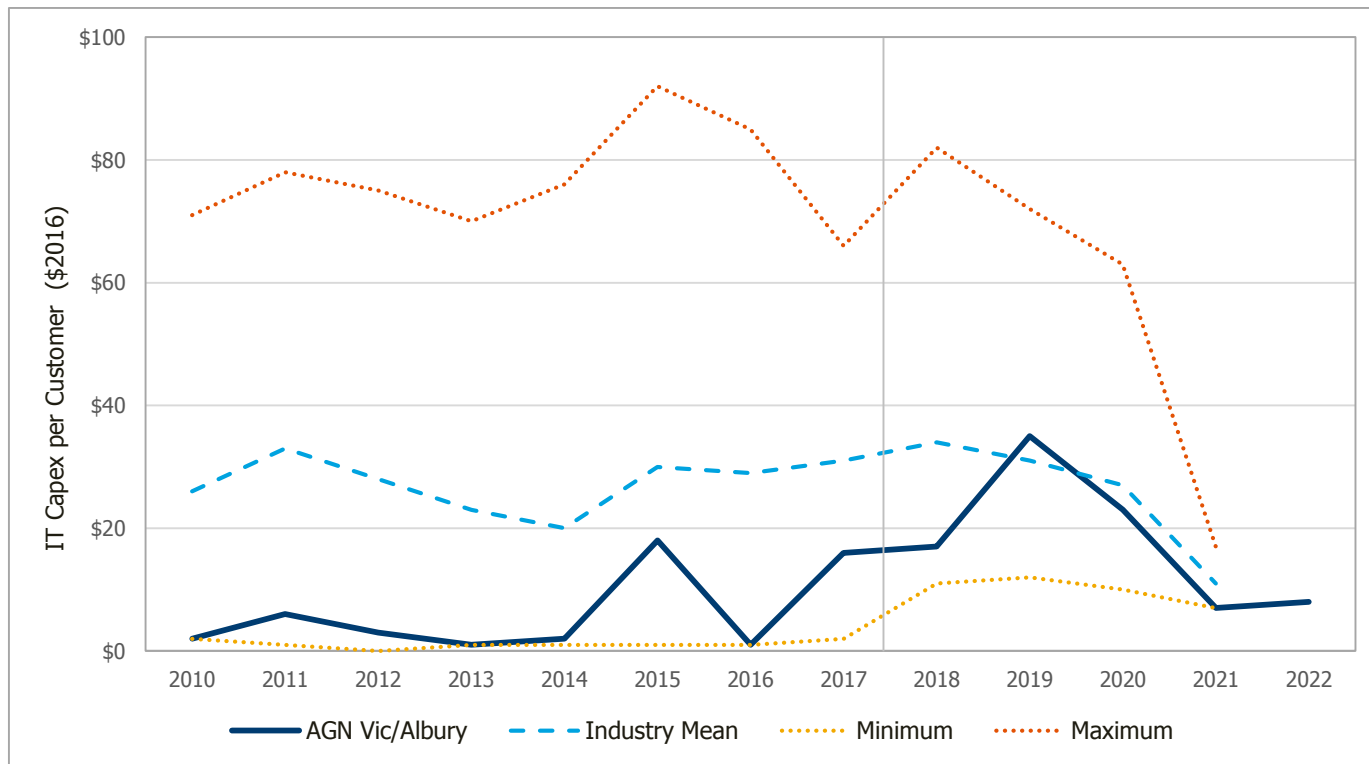


11. Do you consider we have applied an appropriate approach to forecasting growth capex?

Capex | Information Technology

Forecasting Approach = Discrete Projects captured in Business Cases

- \$62 million over the five year AA period (13% of total capex)



Source: KPMG analysis 2016

Capex | Information Technology

- Key drivers for IT expenditure include:
 - Continuing the nationalisation of systems across our business
 - State-based systems are no longer supported (10+ years old)
 - Proposing the same suite of projects as those accepted by the AER in SA (except SCADA)
 - Upgrades to mitigate risks of core operating systems
 - Improvement in customer service and efficiency
 - Compliance
- Costs of IT projects estimated using:
 - Total cost of projects developed using a standard Estimation Tool
 - Allocation of Victoria/Albury portion of project costs based on customer numbers

“Customers would like access to more information from AGN and favour digital channels” Deloitte 2016

Capex | Information Technology

Project	Cost (\$m)	Description	Accepted by AER in SA AA Review?
Applications Renewal	22.0	Upgrade existing systems for reliability	Accepted
GIS	16.2	Upgrade and integration with EAM	Accepted
Business Intelligence	11.1	Improved reporting and decision making from disparate data	Accepted
Mobility	10.4	Mobile integration and removal of many paper based processes	Accepted
Infrastructure Renewal	1.3	Upgrade of desktop and telephony infrastructure	Accepted
Digital Capability	1.4	Various customer focused digital capabilities based on customer feedback	Accepted

11. Do you consider we have applied an appropriate approach to forecasting IT capex?

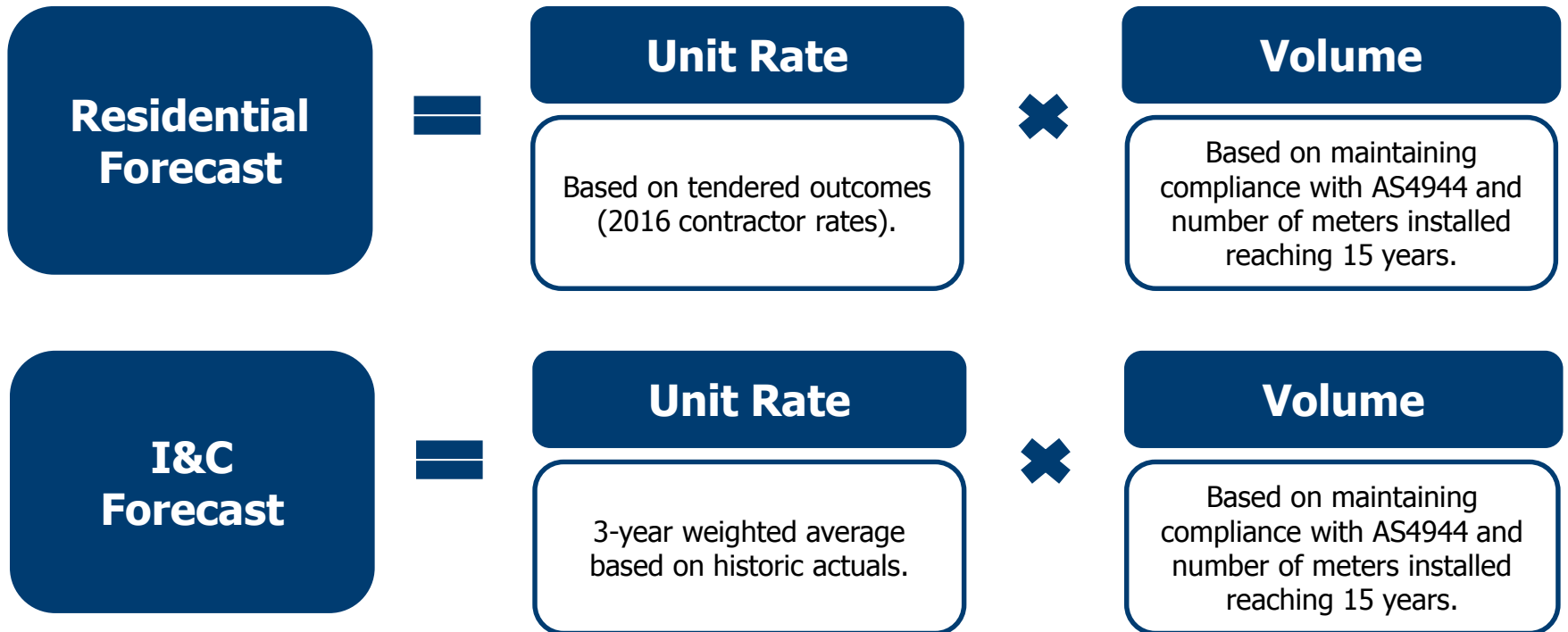
Capex | Meter Replacement

Forecasting Approach = Unit Rate x Volume

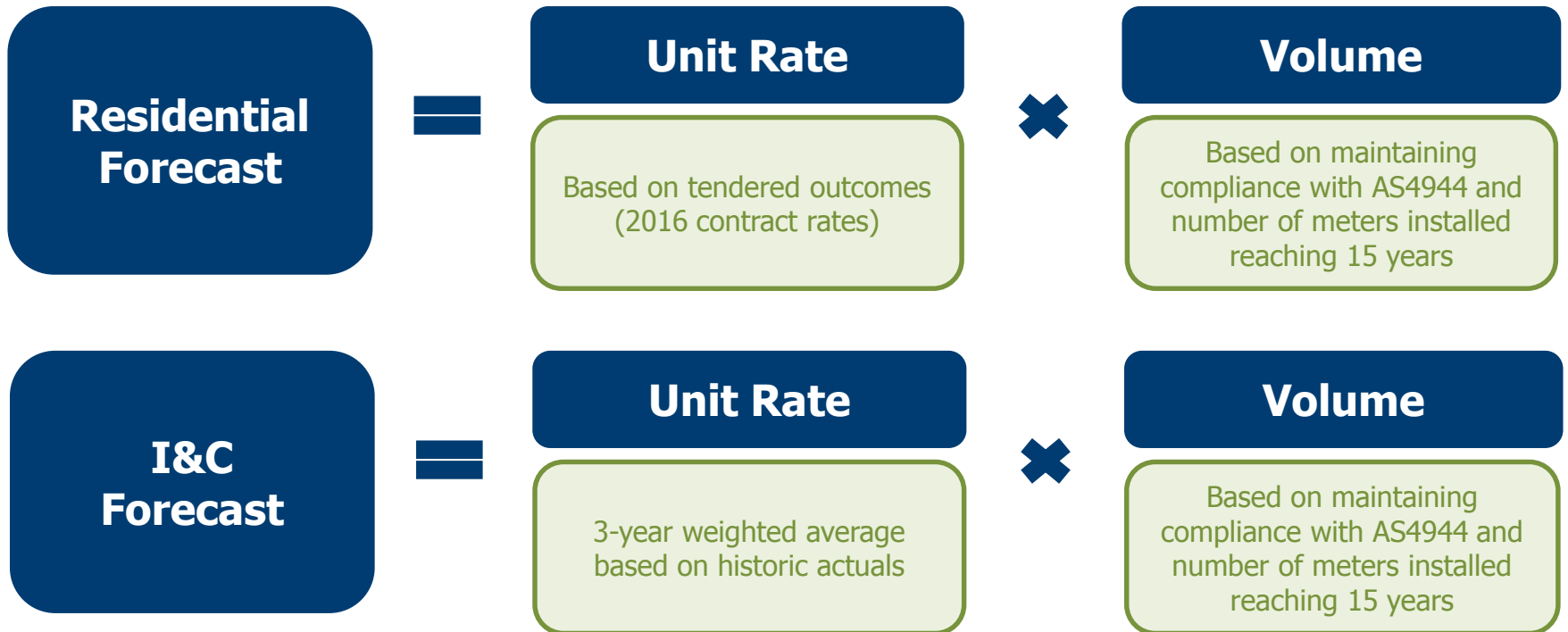
- \$40 million over the five year AA period (8% of total capex)
- Scale of program driven by:
 1. Compliance obligations for metering accuracy
 2. Age and profile of meter fleet
 - There is a large volume reaching 15 years
 - Recent high connection volumes increases 3-5 year testing regime
- Cost of program driven by:
 1. Cost of new meters and installations – this is competitively tendered
 2. Mix of new and repaired meters – maximise meter repairs lowers the overall cost

Deloitte 2016

Capex | Meter Replacement



Capex | Meter Replacement



11. Do you consider we have applied an appropriate approach to forecasting meter replacement capex?

Capex | Augmentation

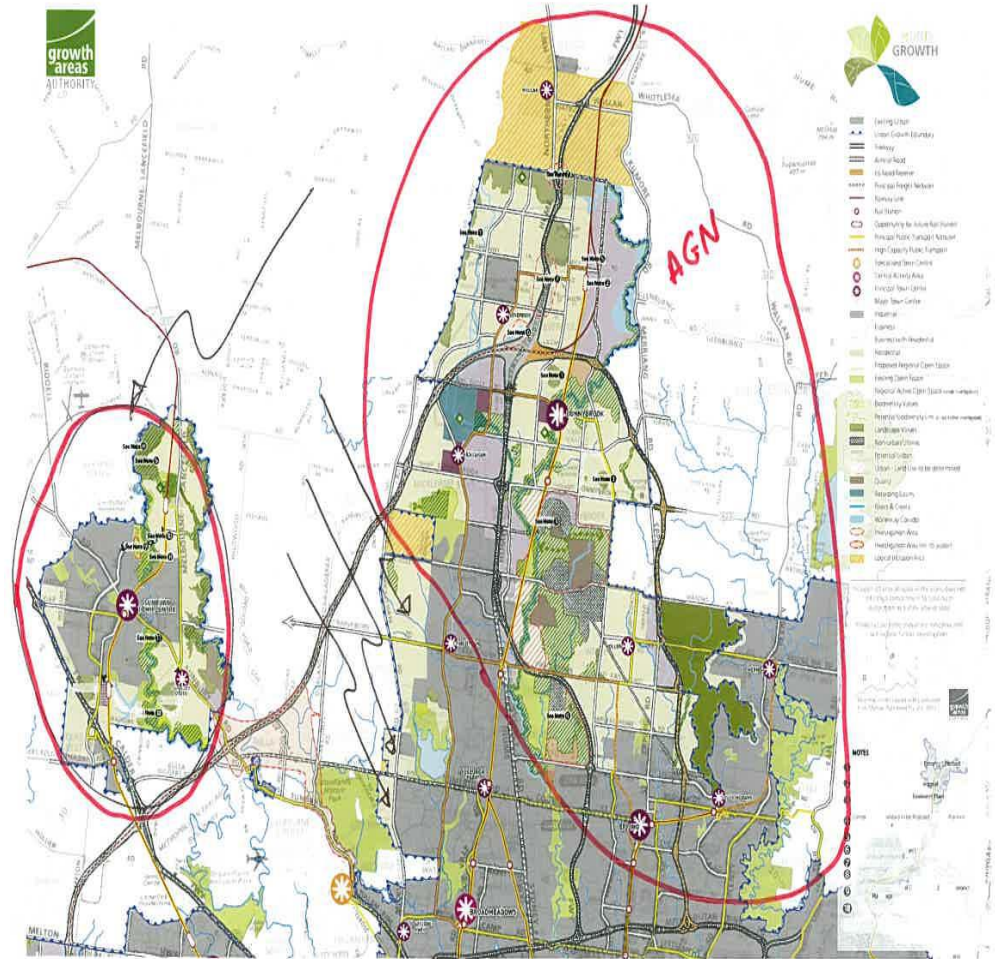
Forecasting Approach = Discrete Projects captured in Business Cases

- \$38 million over the five year AA period (8% of total capex)
- Focused on maintaining (reinforcing) adequate capacity and pressure to meet customer demand
- Investment covers:
 - Network capability to meet ongoing demand for services (especially in high growth areas)
 - Availability of high pressure gas to support network replacement
 - Maintenance of supply reliability (especially from over-pressurisation)

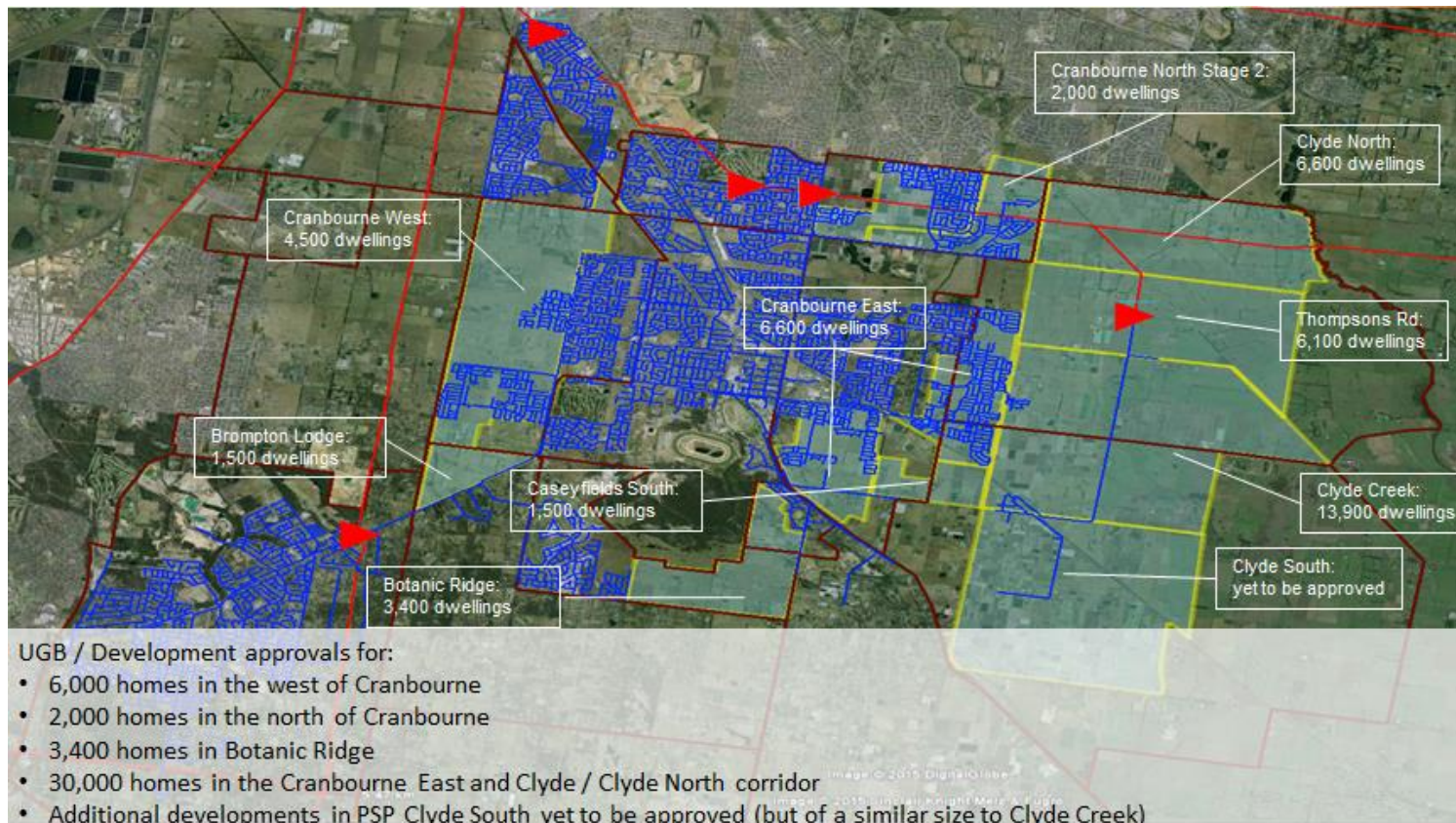
"Customers view gas as a reliable source of energy and value the current standard of reliability" Deloitte 2016

Capex | Augmentation – Northern Corridor (Merrifield)

- Merrifield project will deliver 37,000 homes
- Northern growth corridor will ultimately deliver 220,000 homes
- Evaluations now underway for other northern developments for example Donnybrook East



Capex | Augmentation – Southern Corridor (Cranbourne and Clyde)



11. Do you consider we have applied an appropriate approach to forecasting augmentation capex?

Next Steps

Victorian and Albury AA | Next Steps

- Will consider and reflect feedback from today's workshop in our Plan
 - Will provide feedback to participants to ensure it is accurate
 - Feel free to contact us to discuss any aspect of this workshop further
 - Can also provide written submissions on the Draft Plan (haveyoursay@agnl.com.au) we are flexible on timing, any comment is beneficial
- Additional workshop to be held 30 August (return on capital, demand forecasts and network revenue and pricing)
- Would you like more information on any other aspect of our Draft Plan?
- Further stakeholder workshops and ongoing meeting program



Continued Engagement with Regulators and other key stakeholders



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Supporting Slides

Overview | Stakeholder Engagement – Customer Insights

- Customer feedback received so far has been distilled into nine key customer insights



OVERARCHING INSIGHTS



CUSTOMER EXPERIENCE



NETWORK SAFETY & RELIABILITY



TARIFF STRUCTURES



ENVIRONMENTAL COMMITMENT

Customers do not understand the structure of the gas industry

02

Customers would like AGN to be more visible, believing it would improve their experience as customers

04

Customers view gas as a reliable source of energy and value the current standard of reliability

06

Customers value the control gained by having their gas bill dependent on usage levels

08



01

Customers are not aware of Australian Gas Networks



03

Customers traditionally considered gas a cost-effective alternative to electricity but are concerned with recent price increases



05

Customers would like to access to more information from AGN and favour digital channels



07

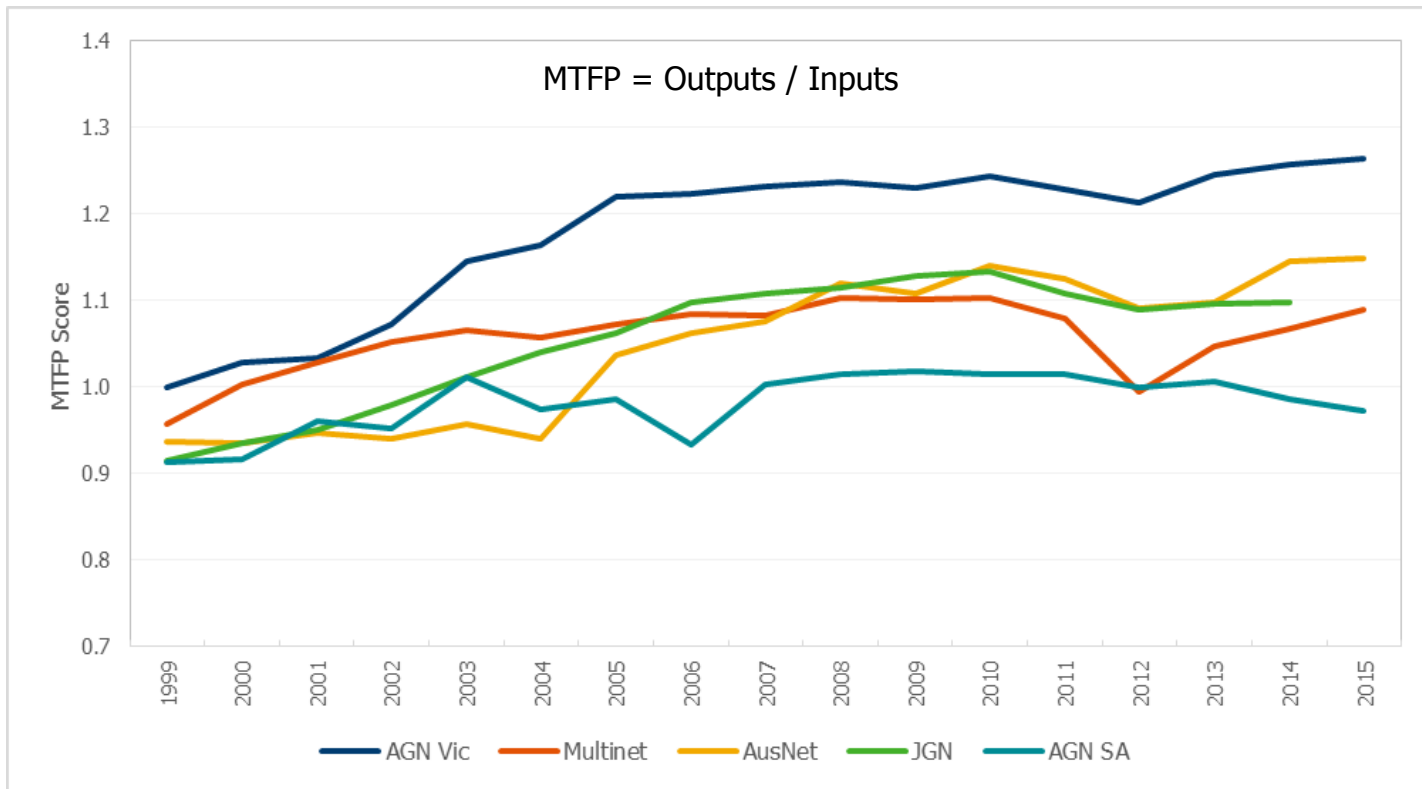
Customers are supportive of initiatives that maintain the reliability and improve the safety of the network



09

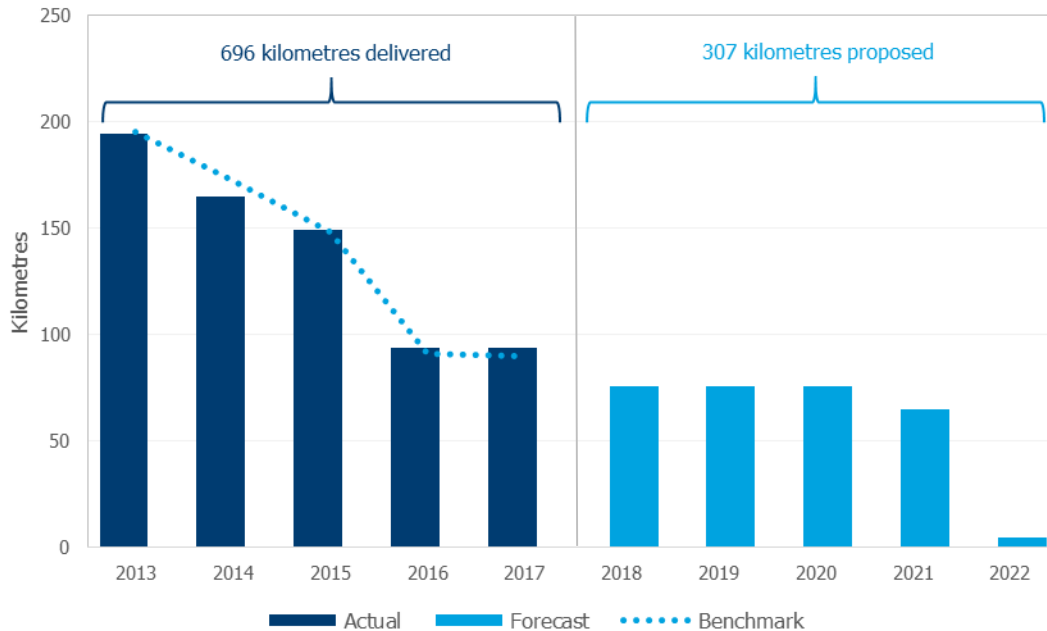
Customers would like AGN to play a leadership role in minimising environmental impact

Opex | AGN is an Efficient Performer



Source: Economic Insights 2016

Capex | Mains Replacement



Decrease of \$96m over the next period, compared to costs incurred in current period

- Current performance:
 - On track to deliver benchmark volume of low pressure mains replacement program
- Next period proposal:
 - Complete low pressure replacement program
 - Moving into Melbourne CBD
 - 3km HDPE sampling program
 - Engagement with ESV
 - Depreciation of old mains in RAB by 2022

Safety considerations are driving our mains replacement program