

Attachment 1

Comparison of Assumptions

June 2018

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Attachment 1: Comparison of Assumptions

The following tables summarise the assumptions in this application compared to the business case submitted in our Revised AA Proposal.

Table 1: General Assumptions

Revised AA Proposal (Jan 2016)			This application (Jun 2018)	
	Assumption	Basis	Assumption	Basis/Support
Nominal Discount Rate	6.36%	AER's Draft Decision (pre-tax nominal WACC)	6.42%	AER's Final Decision (pre-tax nominal WACC, including 2017/18 cost of debt) We note 2018/19 cost of debt does not have a material impact
Tariff	Tanunda & Riverland	Residential and Commercial – Tanunda Tariff D – Riverland (estimated tariffs at Draft Decision)	Tanunda & Riverland	Residential and Commercial – Tanunda Tariff D – Riverland (based on 2017/18 tariffs) We note 2018/19 tariffs do not have a material impact
Incremental Opex	\$20.02/new connection (\$2014/15)	Consistent with assumption used in AA Proposal	\$22.52/new connection (\$2017/18)	Our estimate (based on Victorian Gas Distribution Code inflated to \$2017/18 as this is an independent and justifiable figure) We note this is a conservative estimate as the AER's approach to the output growth escalation factor for opex results in output growth escalation of effectively zero
Overhead	9.6%	Consistent with total overheads included in AA Proposal	4.81%	Amended to only include the variable portion of the AER approved overhead benchmark, which equates to a "rate" of 4.81% as a portion of the overhead is fixed and will not increase if this project goes ahead
CPI	2.5%	Based on midpoint of the RBA target band for inflation	2.39%	Benchmark inflation assumption in AER's Final Decision
X Factor	0%		-3.8%	Benchmark price path in AER's Final Decision We note 2018/19 X-factor does not have a material impact
Dollar terms	\$2014/15	Consistent with revised AA proposal	\$2017/18	Consistent with timing of application

Table 2: Domestic Revenue Assumptions

Revised AA Proposal (Jan 2016)			This application (Jun 2018)	
	Assumption	Basis	Assumption	Basis/Support
Annual Usage	21GJ p.a.	Based on dwelling type, household type, appliance penetration, climate (BOM data), and average consumption for Nuriootpa (as a conservative estimate)	27.3 GJ p.a.	After more detailed comparison of climate and demographic information across AGN's distribution network, this is based on average usage of new homes (constructed 2011 onwards, usage 2012-16) in Mount Gambier (which has the most similar weather in SA to Mount Barker), noting this is likely to be conservative as Mount Gambier is milder, has smaller average household size and lower median income than Mount Barker Note: the climate data presented in the Revised AA Business Case for Mount Gambier was incorrect
Dwellings Forecast	7,315	Council forecasts produced by forecast.id	6,845 (2021-2040)	Independent forecast by Core Energy based on updated forecast.id new dwellings forecast for the Mount Barker Growth Area only
Developer information on LPG commitments	N/A	N/A	0 dwellings	No LPG commitments have been factored into Core's model. APA has confirmed that no deduction for LPG commitments needs to be made to Core's forecast, as all dwellings subject to LPG commitments will have been built by the time customers are able to connect to natural gas.
Penetration Rate	95%	AGN data for multiple estates covering over 6,000 lots. Also supported by historic average of penetration rates in new developments constructed in 2011-2015.	95%	Natural gas penetration rates at March 2018 for eight new development areas with subdivisions (totalling over 14,000 dwellings) of a comparable size and development type to Mount Barker. Penetration rate calculated by comparing the total number of dwellings to the number of residential gas connections. These areas are still under development, therefore provide the most recent trends in residential gas connections.
Connections	7,315	Based on council strategic plan, forecast.id and developer information. Reflects growth area only (excludes existing township).	6,502	Based on the new dwellings forecast above at a penetration rate of 95%

Table 3: I&C Assumptions

Revised AA Proposal (Jan 2016)		This application (Jun 2018)		
	Assumption	Basis	Assumption	Basis/Support
Annual Usage	273GJ p.a.	Consistent with average I&C demand forecasts accepted by the AER in its Final Decision	Various	<p>Core is forecasting three I&C Customer Types as follows:</p> <ul style="list-style-type: none"> Commercial Mount Barker, 273GJ p.a. – AER approved average I&C usage <ul style="list-style-type: none"> See Attachment 4B: Additional Support for Commercial and Industrial Forecasts Commercial Monarto South, [REDACTED] – estimated use of potential future sites [REDACTED] <ul style="list-style-type: none"> See Attachment 4B: Additional Support for Commercial and Industrial Forecasts and Attachment 8: Customer Survey Summary Commercial Kanmantoo, [REDACTED] – [REDACTED] estimated use <ul style="list-style-type: none"> See Attachment 8: Customer Survey Summary
Connections	48	Includes existing CBD and some new areas. Connections identified using survey of town and council.	171	<p>Core is forecasting the following connection numbers:</p> <ul style="list-style-type: none"> Commercial Mount Barker, 165 connections at 273GJ p.a. – based on historic ratio of Tariff C to Tariff R connections in our Annual RINs <ul style="list-style-type: none"> See Attachment 4B: Additional Support for Commercial and Industrial Forecasts Commercial Monarto South, five connections at [REDACTED] – based on APA surveys of potential customers in Monarto South <ul style="list-style-type: none"> See Attachment 8: Customer Survey Summary Commercial Kanmantoo, one connection at [REDACTED] based on customer engagement <ul style="list-style-type: none"> See Attachment 8: Customer Survey Summary

Table 4: Tariff D Demand Assumptions

Revised AA Proposal (Jan 2016)		This application (Jun 2018)	
Assumption	Basis	Assumption	Basis/Support
Annual Usage	<p>Various</p> <ul style="list-style-type: none"> One customer at [REDACTED] per day – [REDACTED] Two customers at 50GJ per day – [REDACTED] 	<p>Various</p> <p>Core are forecasting:</p> <ul style="list-style-type: none"> 50GJ MDQ per day – represents minimum usage of a Tariff D customer. See Attachment 4B: Additional Support for Commercial and Industrial Forecasts [REDACTED] – represents doubling of capacity of customer Support for this reflects APA insight on current usage (if they were to connect to natural gas) [REDACTED] 	
Connections	<p>3</p> <ul style="list-style-type: none"> Two existing businesses [REDACTED] One future business [REDACTED] 	<p>5</p> <p>Core are forecasting:</p> <ul style="list-style-type: none"> Four connections at 50GJ MDQ per day Two for Mount Barker based on existing Industrial to Residential ratio Two for Monarto South based on customer surveys See Attachment 4B: Additional Support for Commercial and Industrial Forecasts One connection at [REDACTED] per day – based on customer surveys [REDACTED] <p>[REDACTED] see Attachment 8: Customer Survey Summary</p>	

Table 5: Capital Assumptions

Revised AA Proposal (Jan 2016)			This application (Jun 2018)	
	Assumption	Basis	Assumption	Basis/Support
Supply main/headworks	\$23.055m	Concept Study Report.	\$36.3	See Attachment 3: Natural Gas to Mount Barker Headworks Summary Now includes detailed estimates for trunk reticulation
Domestic Reticulation per metre	██████	Draft Decision unit rate.	██████	Benchmark: AER approved unit rate inflated to \$17/18
Metres per domestic lot	Unclear		12m	FEED estimate: Based on APA experience for recent similar sized allotments in Gawler East and Buckland Park.
I&C Reticulation per metre	██████	Draft Decision unit rate.	██████ (fixed cost)	FEED estimate: As per Interim FEED Result inflated to \$17/18
Domestic Meter	██████	Draft Decision unit rate.	██████	Benchmark: AER approved unit rate inflated to \$17/18
I&C Meter	██████	Draft Decision unit rate.	██████	Benchmark: AER approved unit rate inflated to \$17/18
Domestic Service	██████	Draft Decision unit rate.	██████	Benchmark: AER approved unit rate inflated to \$17/18
I&C Service	██████	Draft Decision unit rate.	██████	Benchmark: AER approved unit rate inflated to \$17/18
Demand Connection Cost	██████	Historical cost data.	██████	FEED estimate: Based on average of historic Tariff D connection costs exclusive of contributions and overheads, analysis provided by APA.