Australian Gas Networks

Attachment 2.0

Basis of Preparation

Responses to the 2023/24 to 2027/28 Access Arrangement Regulatory Information Notice

July 2022

Contents

Overview 4

Workbook 2 - E2. Mains Replacement 6

E 2.1 – Capex 6

E 2.2 – Volumes 13

Workbook 2 - E3. Mains Augex 22

E3.1 – Capex by Project 22

E3.2 – Volumes – by Pressure Type – by Project 26

Workbook 2 - E4. Meter Replacement 28

E4.1 - Capex 28

E4.2 – Volumes 44

Workbook 2 - E5. New Connections 52

E5.1 - Expenditure 52

E5.2 - Unit Rates 68

E5.3 – Volumes 72

E5.4 – Capital Contributions 84

Workbook 2 - E6. Non-Network 87

E6.5 – Telemetry 87

Workbook 2 - E10. Overheads 91

E10.1- Network 91

E10.2 – Corporate 93

Workbook 2 - E12. Information and Communication Technology 95

E12.1 – Capex – by Project 95

Workbook 2 - E13. Other Capex 102

E13.1 – Other Capex – by Project 102

Workbook 3 - Efficiency Carryover Mechanism 109

7.5.1 – The carryover amounts that arise from applying the ECM during the current regulatory control period 109

Workbook 6 - CESS 114

Reported Capex 114

Reported Performance 114

Appendix A: Cost Collection and Reporting Process - Capex 116

Appendix B: Overhead Expenditure 119

Appendix C: Regulatory accounting policy and other adjustments 121

Overview

The Australian Energy Regulator (AER) served '2023 -2028 Access Arrangement Regulatory Information Notice' (RIN) on Australian Gas Networks (AGN) on its gas distribution networks in Victoria and New South Wales on 8 March 2022 under National Gas Law (NGL). The RIN requires AGN to provide the information and prepare and maintain the information in the manner and form specified in the written notice which includes the following Regulatory Templates:

- Workbook 1 - Forecast data for regulatory years (RY) 2022, 1 Jan to 30 June 2023 and 2023/24 to 2027/28
- Workbook 2 - Historical data for regulatory years 2017 to 2021
- Workbook 3 - Efficiency Carryover Mechanism (ECM)
- Workbook 4 - Indicative Bill Impact
- Workbook 6 - Capital Expenditure Sharing Scheme (CESS)

The RIN requires AGN to submit the information to the AER on or before 5 pm Australian Eastern Standard Time on 1 July 2022.

Basis of Preparation

In accordance with the requirements of Section 1.2 of Schedule 4 of the RIN, AGN is required to prepare a Basis of Preparation **for all the information other than forecast information**, which must:

- demonstrate how the information provided is consistent with the requirements of the RIN;
- explain the source from which AGN used to provide the information;
- explain the methodology AGN has applied to provide the required information, including any assumptions AGN has made;
- explain in circumstances where AGN cannot provide input for a variable using actual information and therefore must provide input using estimated information:
    - why an estimate was required, including why it was not possible for AGN to use actual information;
    - the basis for estimate, including the approach used, assumptions made and reasons why the estimate has been arrived on a reasonable basis and is AGN's best estimate possible in the circumstance.
- explain, in circumstances where AGN provides a 'NULL' response as an input for a variable:
    - why we believes the variable is not applicable for AGN.

To satisfy the requirements of the RIN, AGN has prepared a Basis of Preparation (this document) which is structured to reflect the same section headings used in the relevant Workbooks with a table to include the following details to support the information provided:

- data source of the information provided;

- methodology and assumptions adopted to prepare the information;
- classification as actual or estimated information, including appropriate justification if estimated; and
- any additional comments to assist users of the information to understand the Basis of Preparation.

The Basis of Preparation document has included the historical information contained in the followings:

- Workbook 2 - Historical data for regulatory years 2017 to 2021
- Workbook 3 - Efficiency Carryover Mechanism (ECM)
- Workbook 6 - CESS

Workbook 2 - E2. Mains Replacement

E 2.1 – Capex

E2.1.1 – Proactive – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA Asset Management (APA) under an Operating and Management Agreement (OMA). Accordingly this expenditure is reported as Direct Contractor expenditure below.	Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Capex reported for Proactive Mains Replacement projects includes programmed renewal of specific areas of mains, specified at a project level.	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals or transfer of shared costs between projects

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	All projects with the following activity codes have been designated as Proactive projects: • 2350 Mains Renewal - PI Block (this is then broken down by suburb. For the purposes of this RIN, a suburb is equal to a project) • 2354 Mains Renewal - PI Trunk • 2356 Mains Renewal - PI CBD Block • 2357 Mains Renewal - PI CBD Block Decommissioned • 2358 Mains Renewal - PI CBD Trunk • 2359 Mains Renewal - PI CBD Trunk Decommissioned • 2365 Mains Renewal - PI Trunk Decommissioned Proactive mains replacement projects (inclusive of both direct and overhead expenditure) form part of the Mains and Services asset class.			In the years 2017-2020 where costs could not be identified in relation to a specific suburb, they have been classified as "Other Projects with expenditure of less than $500,000" Minimal spend for activity 2357 Mains Renewal - PI CBD Block Decommissioned, however volumes are recorded and count towards AGN Vic's total Mains replacement program
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure above.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to network overhead expenditure. This is further explained in the AGN Limited Cost Allocation Methodology (CAM). Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation of the Network Management Fee (NMF) paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure.	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals. In the years 2017-2020 where costs could not be identified in relation to a specific suburb, the overheads have been classified as "Other Projects with expenditure of less than $500,000"

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Proactive Mains Replacement projects listed above.			
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template	Actual		
Capital Contributions	There were no Capital contributions received by AGN Limited in relation to Proactive Mains Replacement Capex	Actual		

E2.1.2 – Reactive – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure below.			
- Mains		Actual		
- Services		Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Capex reported for Reactive Mains Replacement projects includes unplanned capital expenditure associated with mains replacement which is required where repairs are not possible and urgent replacement of mains is required to manage gas escape.			
- Mains	For Mains, all projects with the following activity codes have been designated as Reactive projects: • 2351 Mains Renewal - Piece • 2352 Mains Renewal - Trunk • 2353 Mains Renewal - Piece PI • 2360 Mains Renewal - HDPE	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Services	For Services, all projects with the following activity codes have been designated as Reactive projects: • 2370 Service Renewal – AMRP • 2371 Service Renewal – Non AMRP Reactive mains replacement projects (inclusive of both direct and overhead expenditure) form part of the Mains and Services asset class.	Actual		Minimal spend recorded in the system for activity 2370 Service Renewal – AMRP. These service renewals are done as part of the Mains Replacement program and hence the costs are included above
Direct Material expenditure	AGN Limited does not incur Direct material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly this expenditure is reported as Direct Contractor expenditure above.			
- Mains		Actual		
- Services		Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to network overhead expenditure This is further explained in the AGN Limited CAM.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure. Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Reactive Mains Replacement projects with the following activity codes:			
- Mains	For Mains: • 2351 Mains Renewal - Piece	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2352 Mains Renewal - Trunk • 2353 Mains Renewal - Piece PI • 2360 Mains Renewal - HDPE			
- Services	For Services: • 2370 Service Renewal – AMRP • 2371 Service Renewal – Non AMRP	Actual		
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template.			
- Mains		Actual		
- Services		Actual		
Capital Contributions	There were no Capital contributions received by AGN Limited in relation to Reactive Mains Replacement Capex.			
- Mains		Actual		
- Services		Actual		

E 2.2 – Volumes

E2.2.1 – Proactive – by Connection Type – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Low pressure to high pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. The projects listed in the RIN Template are: • 2350 Mains Renewal - PI Block. Includes the following suburbs: Alphington, Carlton, Carlton North, Clifton, Collingwood, East Melbourne, East Preston, East Richmond, Fitzroy, Fitzroy North, Heidelberg, Ivanhoe, Melbourne, North Melbourne, Northcote, Richmond, West Melbourne and West Preston Cast Iron replacement is categorised as Low Pressure to High Pressure. The specific projects identified in this pressure category are allocated to material and pressure categories during the planning and design phase based on network configuration information in the APA GIS mapping system.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Low pressure to medium pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. There are no projects to report in this category.	Actual		
Low pressure to low pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. The projects listed in the RIN template are: • 2350 Mains Renewal - PI Block. Includes the following suburbs: Brunswick, Brunswick West, Fitzroy, Melbourne, Parkville, Carlton and North Melbourne. • 2354 Mains Renewal - PI Trunk • 2356 Mains Renewal - PI CBD Block • 2357 Mains Renewal - PI CBD Block Decommissioned • 2358 Mains Renewal - PI CBD Trunk	Actual		Note: No volumes reported in the system for activity 2359 Mains Renewal - PI CBD Trunk Decommissioned. Immaterial $'s spent Also, no volumes reported in the system in 2020 for activity 2358 Mains Renewal - PI CBD Trunk. Immaterial $'s spent

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2359 Mains Renewal - PI CBD Trunk Decommissioned • 2365 Mains Renewal - PI Trunk Decommissioned The specific projects identified in this pressure category are allocated to material and pressure categories during the planning and design phase based on network configuration information in the APA GIS mapping system.			
Medium pressure to medium pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. The projects listed in the RIN template are: • 2350 Mains Renewal - PI Block. Includes the following suburbs: Preston and Thornbury The specific projects identified in this pressure category are allocated to material and pressure categories during the planning and design phase	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	based on network configuration information in the APA GIS mapping system.			
Medium pressure to high pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. The projects listed in the RIN template are: • 2350 Mains Renewal - PI Block. Includes the following suburb: East Preston The specific project identified in this pressure category are allocated to material and pressure categories during the planning and design phase based on network configuration information in the APA GIS mapping system.	Actual		
High pressure to high pressure (metres replaced)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	The projects listed in the RIN template are: • 2350 Mains Renewal - PI Block. Includes the following suburbs: Alphington, Melbourne, Pakenham & Parkville Steel and HDPE replacement is categorised as High Pressure to High Pressure. The specific projects identified in this pressure category are allocated to material and pressure categories during the planning and design phase based on network configuration information in the APA GIS mapping system.			

E2.2.2 – Reactive – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Low pressure to high pressure				

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Metres of mains replaced	There are no volumes to report in this category of connections capex.	Actual		
- Number of services replaced	There are no volumes to report in this category of connections capex.	Actual		
Low pressure to medium pressure				
- Metres of mains replaced	There are no volumes to report in this category of connections capex.	Actual		
- Number of services replaced	There are no volumes to report in this category of connections capex.	Actual		
Low pressure to low pressure				
- Metres of mains replaced	There are no volumes to report in this category of connections capex.	Actual		
- Number of services replaced	There are no volumes to report in this category of connections capex.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Medium pressure to medium pressure				
- Metres of mains replaced	There are no volumes to report in this category of connections capex.	Actual		
- Number of services replaced	There are no volumes to report in this category of connections capex.	Actual		
Medium pressure to high pressure				
- Metres of mains replaced	There are no volumes to report in this category of connections capex.	Actual		
- Number of services replaced	There are no volumes to report in this category of connections capex.	Actual		
High pressure to high pressure				
- Metres of mains replaced	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity.	Actual		Note: No volumes recorded in the system for 2017. Immaterial $'s spent.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2351 Mains Renewal - Piece • 2352 Mains Renewal – Trunk • 2353 Mains Renewal - Piece PI • 2360 Mains Renewal - HDPE			The remaining years only reflect volumes recorded in the system for activity 2351 Mains Renewal - Piece
- Number of services replaced	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes by Activity. • 2370 Service Renewal – AMRP • 2371 Service Renewal – Non AMRP Non Planned Service renewals are classified as reactive High to High Pressure Replacement.	Actual		

Workbook 2 - E3. Mains Augex

E3.1 – Capex by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly this expenditure is reported as Direct Contractor expenditure below.	Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Mains Augmentation projects includes capital expenditure incurred on the AGN Victoria and Albury networks due to a change in the capacity requirements of mains and services in the gas distribution network to meet the demands of existing and future customers.	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Capex reported for Mains Augmentation projects has been identified with reference to specific project names in APA's Oracle finance system that are known to be Mains Augmentation projects. Projects with expenditure greater than $500k per annum have been reported separately, with all other projects in this category grouped. The projects reported as Mains Augmentation projects are identified by the following activity names in APA's Oracle finance system: • 3055 Major Projects – Plenty Valley Network Augmentation • 3093 Major Projects – Dandenong to Crib Point Duplication • 3049 Major Projects – Cranbourne East • 3106 Major Projects – H07 Cranbourne HP Augmentation In the most part, Mains Augmentation projects (inclusive of both direct and overhead expenditure) form part of the Mains and Services asset class with the exception of the following project: • 3106 Major Projects – H07 Cranbourne HP Augmentation in which the 2021 expenditure has been allocated to Mains			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	and Services 71% (Mains) and Other Assets 29% (City Gate). And the following activity containing mains augmentation projects with expenditure under $500k: • 2160 New Main – Improved Supply			
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly this expenditure is reported as Direct Contractor expenditure above.	Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to Overhead expenditure This is further explained in the AGN Limited CAM. Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects.	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation of the NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure. Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Mains Augmentation projects/activities listed above.			
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template	Actual		
Capital Contributions	There were no Capital contributions received by AGN Limited for Mains Augmentation Capex	Actual		

E3.2 – Volumes – by Pressure Type – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Low pressure to low pressure (metres augmented)	There are no volumes to report in this category of mains augmentation capex.	Actual		
Low pressure to medium pressure (metres augmented)	There are no volumes to report in this category of mains augmentation capex.	Actual		
Low pressure to high pressure (metres augmented)	There are no volumes to report in this category of mains augmentation capex.	Actual		
Medium pressure to Medium pressure (metres augmented)	There are no volumes to report in this category of mains augmentation capex.	Actual		
Medium pressure to High pressure (metres augmented)	There are no volumes to report in this category of mains augmentation capex.	Actual		
High pressure to High pressure (metres augmented)	Volumes for the following mains augmentation projects have been sourced from Board papers and confirmed with relevant personnel from APA who is responsible for the delivery of AGN Limited's Capex program under the OMA: • 3055 Major Projects – Plenty Valley Network Augmentation • 3049 Major Projects – Cranbourne East	Estimate	Volumes reported are not directly sourced from APA's management system hence AGN deem these to be an estimate.	

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 3106 Major Projects – H07 Cranbourne HP Augmentation The following mains augmentation project has no meterage recorded to date: • 3093 Major Projects – Dandenong to Crib Point Duplication (Project currently on hold, spend relates to pipe and engineering design) The following activity for mains augmentation projects with expenditure under $500k, has no volumes recorded in the system: • 2160 New Main – Improved Supply			

Workbook 2 - E4. Meter Replacement

E4.1 - Capex

E4.1.1 – New Meters Acquired

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure below.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure.			The total amount reported for Direct Contractor expenditure for

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Expenditure has been reported only against New Meters Acquired and Meter Refurbishment because AGN Limited and APA's business systems and processes are not designed to provide any further breakdown of costs, as requested in this RIN table. Data is captured by APA on the number of meters refurbished each year and this has been used to split the costs between new and refurbished meters. Capex reported in this category relates to the cost of new meters installed into the AGN Victoria and Albury networks for operation. Replacing domestic gas meters involves: • procuring any new or refurbished meters required, including quality control; • planning and scheduling of meters to be changed over; • organising resources (combination of direct and contractor) to carry out the meter change, which includes testing of outlet service and relighting appliances, and if required, re-attending premises after hours if the customer requires assistance; • testing meters brought in from the field; • life extension; and • refurbishing meters as required. Costs reported for New Meters include the above activities, excluding the cost of refurbished meters which are reported in their own category below. A meter is an instrument that measures the quantity of gas passing through it and includes			Meter Replacement in 2017 differs to what was reported in the Historic Annual RIN by ($203,678). This is predominantly a result of an incorrect allocation of a project in the Annual RIN which has now been corrected in the RESET RIN. Refer also E5. Connections (and a lesser degree to Other Capex). It also includes an adjustment of ($2,397) to exclude an unregulated asset (water meter). The AGN Vic Historical Performance Data RIN for 2011-2017 will be re-submitted on 01/07/2022.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	associated equipment attached to the instrument to filter, control or regulate the flow of gas. Capex reported for Meter Replacement projects has been identified with reference to the expenditure captured in APA's Oracle finance system against the following activity names: • 2545 Meter – Change – Domestic (Residential) • 2745 Meter – Change – I&C < 10TJ (Industrial & Commercial) • 2845 Meter – Change – I&C > 10TJ (Industrial & Commercial) Meter Replacement projects (inclusive of both direct and overhead expenditure) form part of the Meters asset class. Expenditure for New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters each year (as advised by APA)			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure above.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to Overhead expenditure Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads include an allocation of the NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure. Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Meter Replacement projects/activities listed above.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template			
- Residential		Actual		
- Industrial and Commercial		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Other		Actual		
Capital Contributions	AGN Limited received no Capital contributions in relation to Meter Replacement Capex.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

E4.1.2 – Meter Refurbishment

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure below.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Capex reported in this category relates to meters that were operating within the AGN Victoria and Albury networks which were temporarily taken out of operation and that were able to be restored to full function through a process of being refurbished. Costs reported include installation and other meter replacement costs because there is no data available with which to separate those costs. Costs reported in this table excludes the cost of New Meters which are reported in their own category above.			The total amount reported for Direct Contractor expenditure for Meter Replacement in 2017 differs to what was reported in the Historic Annual RIN by ($203,678). This is predominantly a result of an incorrect allocation of a project in the Annual RIN which has now been corrected in the RESET RIN. Refer

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Refer to Basis of Preparation explanation above against New Meters Acquired. Expenditure has been totalled for New Meters Acquired and Meter Refurbishment and allocated based on the proportion of new and refurbished meters each year.			also E5. Connections (and a lesser degree to Other Capex). It also includes an adjustment of ($2,397k) to exclude an unregulated asset (water meter). The AGN Vic Historical Performance Data RIN for 2011-2017 will be re-submitted on 01/07/2022.
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure above.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to Overhead expenditure Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation of the NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Capital Contributions	AGN Limited received no Capital contributions in relation to Meter Replacement Capex.			
- Residential		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Industrial and Commercial		Actual		
- Other		Actual		

E4.1.3 – Meter Installation

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Direct Internal labour expenditure	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Direct Contractor expenditure	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Material expenditure	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Other Direct expenditure	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Related Party margin expenditure	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Capital Contributions	The costs of installing meters is not separately identified within AGN Limited and APA's business systems. Installation costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

E4.1.4 – Other Meter Replacement Capex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Direct Internal labour expenditure	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Contractor expenditure	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Direct Material expenditure	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Other Direct expenditure	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Related Party margin expenditure	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		
Capital Contributions	Other meter replacement costs are not separately identified within AGN Limited and APA's business systems, these costs have been included in the costs reported above for new and refurbished meters; hence there is no information available to report in this table.			
- Residential		Actual		
- Industrial and Commercial		Actual		
- Other		Actual		

E4.2 – Volumes

E4.2.1 – Number of New Meters Acquired

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Residential (#of new meters acquired)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: • 2545 Meter – Change – Domestic Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters in each year for each customer type.	Actual		
Industrial and commercial (#of new meters acquired)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2745 Meter – Change – I&C < 10TJ • 2845 Meter – Change – I&C > 10TJ Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	based on the proportion of new and refurbished meters in each year for each customer type.			
Other (#of new meters acquired)	There are no volumes to report for this category of new meters acquired.	Actual		

E4.2.2 – Number of Meters Refurbished

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Residential (# of refurbishable meters removed)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: • 2545 Meter – Change – Domestic Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters in each year for each customer type.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Industrial and commercial (# of refurbishable meters removed)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2745 Meter – Change – I&C < 10TJ • 2845 Meter – Change – I&C > 10TJ Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters in each year for each customer type.	Actual		
Other (# of refurbishable meters removed)	There are no volumes to report for this category of meters refurbished.	Actual		
Residential (# of meters decommissioned)	Residential Meters Decommissioned are assumed to be equal to the number of New Meters as above.	Estimated	Data on the number of residential meters decommissioned is not individually captured in AGN Limited or APA's systems. Therefore an assumption needed to be made for this section of the RIN template. AGN Limited believes these estimates have been arrived	

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
			on a reasonable basis and is the best estimate possible in the circumstance.	
Industrial and commercial (# of meters decommissioned)	Industrial and Commercial Meters Decommissioned are assumed to be equal to the number of New Meters as above.	Estimated	Data on the number of industrial and commercial meters decommissioned is not individually captured in AGN Limited or APA's systems. Therefore an assumption needed to be made for this section of the RIN template. AGN Limited believes these estimates have been arrived on a reasonable basis and is the best estimate possible in the circumstance.	
Other (# of meters decommissioned)	There are no volumes to report for Other meters decommissioned.	Actual		

E4.2.3 – Number of Meters Installed

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Residential (# of meters installed)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: • 2545 Meter – Change – Domestic Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters in each year for each customer type. Number of Meters installed is assumed to be the total number of Residential Meters Changed Out.	Actual		
Industrial and commercial (# of meters installed)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2745 Meter – Change – I&C < 10TJ • 2845 Meter – Change – I&C > 10TJ	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Volumes of New Meters Acquired and Meter Refurbishment has been totalled and then allocated between each category and each customer type based on the proportion of new and refurbished meters in each year for each customer type. Number of Meters installed is assumed to be the total number of Commercial & Industrial Meters Changed Out.			
Other (# of meters installed)	There are no volumes to report for Other meters decommissioned.	Actual		

E4.2.4 – Number of Meters Removed/Decommissioned

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Residential (# of meters)	Residential Meters Decommissioned are assumed to be equal to the number of New Meters as above.	Estimate		
Industrial and commercial (# of meters)	Industrial and Commercial Meters Decommissioned are assumed to be equal to the number of New Meters as above.	Estimate		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Other (# of meters)	There are no volumes to report for Other meters removed/decommissioned.	Actual		

E4.2.5 – Other Meter Replacement Volume

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Residential (# of meters)	AGN Limited and its contractor APA's business systems are not configured to capture "Other Meter Replacement" activities, hence there is no information available to report in this table.	Actual		
Industrial and commercial (# of meters)	AGN Limited and its contractor APA's business systems are not configured to capture "Other Meter Replacement" activities, hence there is no information available to report in this table.	Actual		
Other (# of meters)	AGN Limited and its contractor APA's business systems are not configured to capture "Other Meter Replacement" activities, hence there is no information available to report in this table.	Actual		

Workbook 2 - E5. New Connections

E5.1 - Expenditure

E5.1.1 – Capex – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure below.			
- Electricity to gas		Actual		
- New homes		Actual		
- New medium density/high rise		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Industrial & commercial tariff		Actual		
- Industrial & commercial contract		Actual		
Direct Contractor expenditure	Given all network capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Capex reported as New Connections relates to expenditure on connections established or to be established, in accordance with Part 12A of the NGR and applicable energy laws, where there is no existing connection. Connection means a physical link between the gas distribution network and a retail customer's premises to allow the flow of natural gas. Any activities that relate to extending the network to connect a new customer, has been treated as Connections and not as Augmentation. Augmentation expenditure has been identified as activities related to increasing the size or capacity of the pipeline.			The total amount reported for Direct Contractor expenditure for Connections in 2017 differs to what was reported in the Historic Annual RIN by $206,159. This is a result of an incorrect allocation of a project in the Annual RIN which has now been corrected in the RESET RIN. Refer also E4. Meter Replacement (and a lesser degree to Other Capex). The AGN Vic Historical Performance Data

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Supply Mains projects have been treated as Connections expenditure because they are not increasing the size or capacity of the pipeline upstream of the new connection. Capex reported for New Connections has been identified with reference to the expenditure captured in APA's Oracle finance system against the following activity names: • 2705 Design – I&C Mains Extn < 10TJ • 2725 Meter – Fabrication < 10TJ • 2535 Meter – Growth – Domestic • 2735 Meter – Growth – I&C < 10TJ • 2635 Meter – Growth – Multiuser • 2730 Meter – Installation < 10TJ • 2511 New Main – Estate • 2510 New Main – Existing Domestic • 2710 New Main – I&C < 10TJ • 2516 New Service – Exist Home • 2715 New Service – I&C < 10TJ • 2615 New Service – Multiuser • 2515 New Service – New Home • 2825 Meter – Fabrication > 10TJ • 2835 Meter – Growth – I&C > 10TJ • 2830 Meter – Installation > 10TJ • 2810 New Main – I&C > 10TJ • 2815 New Services – I&C > 10TJ			RIN for 2011-2017 will be re-submitted on 01/07/2022.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	In addition to the following projects categorised internally as Supply Mains projects: • 3045 Major Projects – Donnybrook Rd East Supply • 3061 Major Projects – Wollert Precinct Supply Main • 3020 Major Projects – Wandong • 2901 Major Projects – Merrifield • 3111 Major Projects – Logic Industry Park Wodonga • 3046 Major Projects – Clyde North Supply • 3047 Major Projects – Pattersons Rd Supply • 3019 Major Projects – Koo Wee Rup Expenditure has also been categorised as relating to the following sub-categories for the purpose of determining unit rates as required in Table E5.2.1 below: • Distribution Mains • Inlet Service Pipes • Meters Note: There is no Distribution Mains expenditure reported under the connection type iii) New Medium Density / High Rise, as this forms part of Existing Mains. This expenditure is reported as			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	relating to either New Homes or Electricity to Gas connections but we note that in some cases the trunk main may support some Industrial & Commercial customers (e.g. a local shopping centre). New Connections capex (inclusive of both direct and overhead expenditure) form part of the following asset classes: • Mains and Services (for all Distribution Mains and Inlet Service pipes expenditure) • Meters (for all Meters expenditure) However, the following projects have been allocated against multiple asset classes: 3020 Major Projects – Wandong (included in New Homes – Distribution Mains) in 2017 and 2018: • Mains and Services 95% (Mains) • Other Assets 5% (City Gate) 2901 Major Projects – Merrifield (included in New Homes – Distribution Mains) in 2017 and 2018: • Mains and Services 74% (Mains) • Other Assets 26% (City Gate)			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	3111 Major Projects – Logic Industry Park Wodonga (included in New Homes – Distribution Mains/Inlet Service Pipes) in 2020: • Mains and Services 12% (Mains) • Meters 24% (Meter) • Other Assets 64% (City Gate) 3111 Major Projects – Logic Industry Park Wodonga (included in New Homes – Distribution Mains/Inlet Service Pipes) in 2021: • Mains and Services 9% (Mains) • Meters 30% (Meter) • Other Assets 61% (City Gate) Note: the above project 3111 Major Projects – Logic Industry Park Wodonga, is fully funded so the equal amount is also recorded as a contribution under the same asset classes, therefore net capex for this project is nil. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Marketing Rebates" for expenditure treated as Opex Expenditure for projects in this category against each of above activity/project names has been			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	allocated to the connection types shown in the RIN template as follows:			
- Electricity to gas	• 2535 Meter – Growth – Domestic • 2510 New Main – Existing Domestic • 2516 New Service – Exist Home The data captured by AGN Limited and its contractor APA against the activity 2535 Meter – Growth – Domestic listed above does not of itself enable the identification of the relevant Connection type for reporting in this RIN table. Therefore, in order to determine the volume and cost of Connections by Connection type for this specific activity code, as required in the RIN table, it has been necessary to reference data recorded against other activity codes that are considered to very closely relate to this activity and Connection type. For this activity code (2535 Meter – Growth – Domestic) the expenditure specifically related to the Electricity to gas Connection type has been identified with reference to the volume of Inlet service pipes allocated to the activity 2516 New Service – Existing Home.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	The volume of Inlet service pipes recorded against this activity is assumed to represent the equivalent volume of Meters relating to Connection type Electricity to gas. This derived volume of Meters estimated to relate to Electricity to gas has then been multiplied by the average unit cost for all Meters recorded against activity 2535 Meter – Growth – Domestic, to arrive at the estimated cost of Meters for connection type Electricity to gas. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be Actual information.			
- New homes	• 2511 New Main – Estate • 2515 New Service – New Home • 2535 Meter – Growth - Domestic And the following Supply Mains projects: • 3045 Major Projects – Donnybrook Rd East Actual Supply • 3061 Major Projects – Wollert Precinct Supply Main • 3020 Major Projects – Wandong • 2901 Major Projects – Merrifield • 3111 Major Projects – Logic Industry Park Wodonga			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 3046 Major Projects – Clyde North Supply • 3047 Major Projects – Pattersons Rd Supply • 3019 Major Projects – Koo Wee Rup As stated above, the data captured by AGN Limited and its contractor APA against the activity 2535 Meter – Growth – Domestic listed above does not of itself enable the identification of the relevant Connection type for reporting in this RIN table. For this activity code (2535 Meter – Growth – Domestic) the expenditure specifically related to the New homes Connection type has been identified with reference to the volume of Inlet service pipes allocated to the activity 2515 New Service – New Home. The volume of Inlet service pipes recorded against this activity is assumed to represent the equivalent volume of Meters related to the Connection type New homes. This derived volume of Meters estimated to relate to “New homes” has then been multiplied by the average unit cost for all Meters recorded against activity 2535 Meter – Growth – Domestic, to arrive at the estimated cost for connection type New homes.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be Actual information.			
- New medium density/high rise	• 2635 Meter – Growth – Multiuser • 2615 New Service – Multiuser • 2535 Meter – Growth - Domestic As stated above, the data captured by AGN Limited and its contractor APA against the activity 2535 Meter – Growth – Domestic listed above does not of itself enable the identification of the relevant Connection type for reporting in this RIN table. For activity 2535 Meter – Growth – Domestic the expenditure specifically related to New medium density/high rise has been identified by taking the total expenditure against this activity and deducting the amounts separately identified above that are reported as being for Electricity to gas and New homes. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be Actual information.	Actual		
- Industrial & commercial tariff	• 2705 Design – I&C Mains Extn < 10TJ • 2725 Meter – Fabrication < 10TJ • 2735 Meter – Growth – I&C <10TJ • 2730 Meter – Installation < 10TJ	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2710 New Main – I&C < 10TJ • 2715 New Service – I&C < 10TJ			
- Industrial & commercial contract	• 2825 Meter – Fabrication > 10TJ • 2835 Meter – Growth – I&C > 10TJ • 2830 Meter – Installation > 10TJ • 2810 New Main – I&C > 10TJ • 2815 New Service – I&C > 10TJ	Actual		
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure above.			
- Electricity to gas		Actual		
- New homes		Actual		
- New medium density/high rise		Actual		
- Industrial & commercial tariff		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Industrial & commercial contract		Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to Overhead expenditure This is further explained in the AGN Limited CAM. Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation of the NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all New Connections projects/activities listed above. In addition to directly allocated overheads mentioned above, AGN Limited is also categorising any other internal non labour expenditure as Other Direct expenditure. This expenditure relates to legal fees in regards to some of the Supply main projects. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Head Office Additions and Other Adjustments" for Other Capex directly incurred by AGN Limited			
- Electricity to gas		Actual		
- New homes		Actual		
- New medium density/high rise		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Industrial & commercial tariff		Actual		
- Industrial & commercial contract		Actual		
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template			
- Electricity to gas		Actual		
- New homes		Actual		
- New medium density/high rise		Actual		
- Industrial & commercial tariff		Actual		
- Industrial & commercial contract		Actual		
Capital Contributions				
- Electricity to gas		Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- New homes	The amount of Capital contributions reported for New Homes (domestic/small commercial customers) has been derived from invoiced revenue. This revenue mostly funds the economic shortfall for Mains. The calculation of this revenue includes allowance for a 20% margin. In addition, any capital or government contributions received for the following Supply Main projects are reported here: • 3020 Major Projects – Wandong • 3019 Major Projects – Koo Wee Rup • 2901 Major Projects – Merrifield • 3111 Major Projects – Logic Industry Park	Actual		
- New medium density/high rise		Actual		
- Industrial & commercial tariff		Actual		
- Industrial & commercial contract	The amount of Capital Contributions reported for Industrial & Commercial Contract customers, is derived from the amounts of related capex incurred, as reported by APA in the Capex Data	Actual	Capital contributions for works undertaken at customers' request are typically received up-front or in milestone payments that	The total amount reported for Capital Contributions for Connections in 2017 differs to

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Model (with an adjustment to remove the allocated NMF). The Capex Activities in APA's Oracle finance system related to this category of Capex and Capital Contributions are: • 2810 New Main – I&C > 10TJ (relating to Mains) • 2815 New Service – I&C > 10TJ (relating to Inlets) • 2825 Meter Fabrication > 10TJ (relating to Meters) • 2830 Meter Installation > 10TJ (relating to Meters) • 2835 Meter Growth – I&C > 10TJ (relating to Meters)		do not necessarily match the timing of related expenditure incurred by AGN Limited. Accordingly, in order to match Capital contributions received with related Capex incurred, the amounts reported for Capital contributions related to New Connections has been derived from the amounts of Capex incurred on these projects. Rather than deriving these amounts from payments received, this approach is considered by AGN Limited to be a better representation of the Capital contributions relating to the activity undertaken in each year.	what was reported in the Historic Annual RIN by ($649). This is a result of an incorrect allocation of a project in the Annual RIN which has now been corrected in the RESET RIN. Refer also E5. Connections and E4. Meter Replacement Direct Contractor expenditure (and a lesser degree to E13. Other Capex). The AGN Vic Historical Performance Data RIN for 2011-2017 will be re-submitted on 01/07/2022.

E5.2 - Unit Rates

E5.2.1 – Unit Rates – Per Connection – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Electricity to gas	Unit rates have been manually calculated based on information ($'s and units) sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) with reference to the following activities:	Estimate	Given the unit rates reported are not directly sourced from APA's business management systems, AGN have deemed these as estimates. AGN believe these are the best estimates possible.	
- Distribution mains (per meter per connection)	2510 New Main – Existing Domestic			
- Inlet services pipes (per service per connection)	2516 New Service – Exist Home			
- Meters (number per connection)	2535 Meter – Growth – Domestic			
New homes	Unit rates have been manually calculated based on information ($'s and units) sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management	Estimate	Given the unit rates reported are not directly sourced from APA's business management systems, AGN have deemed these as estimate. AGN	

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	System (Maximo) with reference to the following activities:		believe these are the best estimates possible.	
- Distribution mains (per meter per connection)	2511 New Main – Estate			
- Inlet services pipes (per service per connection)	2515 New Service – New Home			
- Meters (number per connection)	2535 Meter – Growth – Domestic			
New medium density / high rise	Unit rates have been manually calculated based on information ($'s and units) sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) with reference to the following activities:	Estimate	Given the unit rates reported are not directly sourced from APA's business management systems, AGN have deemed these as estimate. AGN believe these are the best estimates possible.	
- Distribution mains (per meter per connection)	There is no unit rates reported for Distribution Mains expenditure under the connection type C. New Medium Density / High Rise, as this forms part of Existing Mains as noted above in the expenditure table.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Inlet services pipes (per service per connection)	2615 New Service – Multiuser			
- Meters (number per connection)	2535 Meter – Growth – Domestic			
Industrial & Commercial Tariff	Unit rates have been manually calculated based on information ($'s and units) sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) with reference to the following activities:	Estimate	Given the unit rates reported are not directly sourced from APA's business management systems, AGN have deemed these as estimate. AGN believe these are the best estimates possible.	
- Distribution mains (per meter per connection)	2710 New Main – I&C < 10TJ			
- Inlet services pipes (per service per connection)	2715 New Service – I&C < 10TJ			
- Meters (number per connection)	2735 Meter – Growth – I&C < 10TJ			
Industrial & Commercial Contract	Unit rates have been manually calculated based on information ($'s and units) (where available) sourced from APA business management systems,	Estimate	Given the unit rates reported are not directly sourced from APA's business management	Unit rates are not applicable for the connection type E.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) with reference to the following activities:		systems, AGN have deemed these as estimate. AGN believe these are the best estimates possible.	Industrial & Commercial Contract due to the low volumes and high degree of variability in the scope and complexity of the work. The scope of work is dependent on the technical requirements of each Industrial & Commercial Contract and therefore these connections are designed, costed and installed on a case by case basis.
- Distribution mains (per meter per connection)	2810 New Main – I&C > 10TJ			No volumes are reported in Maximo in 2017 therefore no unit rate is recorded for Distribution mains

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Inlet services pipes (per service per connection)	2815 New Services – I&C > 10TJ			No volumes are reported in Maximo in 2019 therefore no unit rate is recorded for Inlet Service pipes
- Meters (number per connection)	2815 New Services – I&C > 10TJ			No volumes are reported in Maximo in 2019 -2021 therefore no unit rate is recorded for Meters

E5.3 – Volumes

E5.3.1 – Number of new connections

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Electricity to gas (# of new connections)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2516 New Service – Exist Home	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	It is assumed that there is a 1:1 relationship with 2535 Meter – Growth – Domestic. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.			
New homes (# of new connections)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2515 New Service – New Home It is assumed that there is a 1:1 relationship with 2535 Meter – Growth – Domestic. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		
New medium density / high rise (# of new connections)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names:	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2615 New Service – Multiuser It is assumed that there is a 1:1 relationship with 2535 Meter – Growth – Domestic to New Home and E to G services and that the residual are Medium Density connections. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information			
Industrial & Commercial Tariff (# of new connections)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: • 2735 Meter – Growth – I&C < 10TJ It is assumed that there is a 1:1 relationship with 2735 Meter – Growth – I&C < 10TJ. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Industrial & Commercial Contract (# of new connections)	Data Source – sourced from Attachment 13.1 Demand Forecasting Model being submitted to the AER as part of the AGN Victoria and Albury 2023/24 to 2027/28 Access Arrangement. Refer tab AGN Vic & Albury Summary table, Row 52, which represents the closing connections numbers for Industrial customers as at June of each year. Each two financial years are then averaged to arrive at a closing connections balance as at December of each year. The movement between each calendar year represents the new connections for that year.	Estimate	The volume of new connections for Industrial & Commercial Contract Customers are not reliably recorded in Maximo so AGN consider this to be a more accurate approach.	Refer also to Additional Comments under 5.2 Unit Rates.

E5.3.2 – Volumes – Per Connection – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Electricity to gas				
- Distribution mains (metre per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name:	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	2510 New Main – Existing Domestic This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Electricity to Gas			
- Inlet services pipes (service per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names 2516 New Service – Exist Home: 2535 Meter – Growth – Domestic This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Electricity to Gas Assumed 1:1 relationship between Meter : Service AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Meters (# per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: 2516 New Service – Exist Home: 2535 Meter – Growth – Domestic This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Electricity to Gas Assumed 1:1 relationship between Meter : Service AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		
New homes				
- Distribution mains (metre per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name:	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	2511 New Main – Estate and Supply Main Major Projects This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type New Homes			
- Inlet services pipes (service per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: 2515 New Service – New Home: 2535 Meter – Growth – Domestic This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type New Homes Assumed 1:1 relationship between Meter : Service AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Meters (# per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: 2515 New Service – New Home: 2535 Meter – Growth – Domestic This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type New Homes Assumed 1:1 relationship between Meter : Service AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		
New medium density / high rise				
- Distribution mains (metre per connection)	Not Accounted for separately. Included as part of Existing Mains.	Actual		
- Inlet services pipes (service per connection)	Assumed 1 service per connection	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
- Meters (# per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: • 2535 Meter – Growth - Domestic The residual number of meters in the above activity once the volumes for Electricity to gas and New Homes has been deducted (as reported in table E5.3.2 Number of New Connections for connection type New medium density/high rise) divided by the volume of Services reported in the following activity name: • 2615 New Service – Multiuser	Actual		
Industrial & Commercial Tariff				
- Distribution mains (metre per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: 2710 New Main – I&C < 10TJ	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Industrial and commercial tariff			
- Inlet services pipes (service per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name: 2715 New Service – I&C < 10TJ This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Industrial and commercial tariff AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		
- Meters (# per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity name:	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	2735 Meter – Growth – I&C < 10TJ This is then divided by the number of connections reported in E5.3.1 Number of New Connections for Connection Type Industrial and commercial tariff AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.			
Industrial & Commercial Contract				
- Distribution mains (meter per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: 2810 New Main – I&C > 10TJ/ 2815 New Services – I&C > 10TJ	Estimate		No volumes are reported in Maximo in 2017 therefore metres per connection for Distribution Mains is also not reported
- Inlet services pipes (service per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Management System (Maximo) which allocates Volumes against the following activity names: 2815 New Services – I&C > 10TJ: 2835 Meter – Growth – I&C > 10TJ 1:1 Relationship Assumed AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.			
- Meters (# per connection)	Data Source (refer CAM Section 6.1) – sourced from APA business management systems, including its Oracle General Ledger, which is integrated with an Oracle Projects Ledger and a separate Asset Management System (Maximo) which allocates Volumes against the following activity names: 2815 New Services – I&C > 10TJ: 2835 Meter – Growth – I&C > 10TJ 1:1 Relationship Assumed. AGN Limited is confident that the volumes are derived from a reasonable basis and therefore consider this to be actual information.	Actual		

E5.4 – Capital Contributions

E5.4.1- Value of Capital Contributions – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Electricity to gas	AGN Limited received no Capital Contributions in relation to the Electricity to gas connection type.	Actual		
New homes	The amount of Capital Contributions reported for New Homes is linked to E5.1.1 table F Capital Contributions - (ii) New Homes	Actual		
New medium density / high rise	AGN Limited received no Capital Contributions in relation to the New medium density / high rise connection type.	Actual		
Industrial & Commercial Tariff	AGN Limited received no Capital Contributions in relation to the Industrial & Commercial Tariff connection type.	Actual		
Industrial & Commercial Contract	The amount of Capital Contributions reported for Industrial & Commercial Contract customers is linked to E5.1.1 table F Capital Contributions – (v) Industrial and Commercial Contract	Actual		

E5.4.2 – Number of Capital Contributions – by Connection Type

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Electricity to gas	AGN Limited received no Capital Contributions in relation to the Electricity to gas connection type.	Actual		
New homes	The number of Capital contributions received for New homes has been estimated with reference to the number of invoices that are recorded in AGN Limited's accounts receivable ledger, against the Customer contributions revenue account code.	Estimate	AGN Limited and its capital delivery contractor APA does not capture data related to Capital contributions for New homes to a level of detail which provides a precise record of the individual contributions received for each new home. It is AGN Limited's assumption that one invoice for Capital contributions represents one Capital contribution.	
New medium density / high rise	AGN Limited received no Capital Contributions in relation to the New medium density / high rise connection type.	Actual		
Industrial & Commercial Tariff	AGN Limited received no Capital Contributions in relation to the Industrial & Commercial Tariff connection type.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Industrial & Commercial Contract	The number of Capital contributions received for Industrial & Commercial Contract customers has been estimated with reference to counting the number of projects recorded against the relevant activity codes which map to Industrial & Commercial Contract Connections Capex.	Estimate	The business systems utilised by AGN Limited and its capital delivery contractor APA, does not capture the number of Capital contributions received.	

Workbook 2 - E6. Non-Network

E6.5 – Telemetry

E6.5.1 – Capex – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Non-Network Telemetry Capex. Delivery of AGN Limited's Telemetry Capex is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure below.	Actual		
Direct Contractor expenditure	Given all Telemetry capex is performed by APA under the OMA, direct capex is all categorised as Direct Contractor Expenditure. Telemetry projects includes capital expenditure incurred in the replacement of SCADA (Supervisory control and data acquisition) equipment operating in the network due to the condition of the assets.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Expenditure reported for Telemetry Capex projects has been identified with reference to the expenditure captured in APA's Oracle finance system against the following activity names: • 2175 Telemetry – System – Capital Works • 2156 Network – Control & Monitoring - Capex Telemerty projects (inclusive of both direct and overhead expenditure) form part of the SCADA asset class. As there were no Telemetry Capex projects with expenditure greater than $500k per annum for the years being reported in the RIN template, all expenditure is reported against the single line for 'Aggregate of projects with expenditure of less than $500,000'.			
Direct Material expenditure	AGN Limited does not incur Direct Material expenditure in relation to delivery of its Capex program. Delivery of AGN Limited's Capex program is performed by APA under the OMA. Accordingly, this expenditure is reported as Direct Contractor expenditure above.	Actual		
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Overhead expenditure This is further explained in the AGN Limited CAM. Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA's Oracle finance system at the time expenditure was incurred. Network overheads include an allocation of the NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure. Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Non-Network projects/activities listed above.			
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Capital Contributions	AGN Limited has received no Capital Contributions in relation to expenditure reported as Telemetry capex.	Actual		

Workbook 2 - E10. Overheads

E10.1- Network

E10.1.1 – Opex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Reference Services	AGN Limited receives charges for Opex related activities from its principle contractor APA, in total (i.e. not separated between direct costs and overheads). This expenditure is all reported to the AER as Repairs and Maintenance. Therefore, there is nil overheads to report in this RIN table.	Actual		
Non-reference Services	AGN Limited receives charges for Opex related activities (including Non-reference Services) from its principle contractor APA, in total (i.e. not separated between direct costs and overheads). This expenditure is all reported to the AER as Repairs and Maintenance.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Therefore, there is nil overheads to report in this RIN table.			

E10.1.2 – Capex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendix B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Overheads expenditure as presented below.*			
Reference Services	The Network Overheads reported as Capex in this table is the sum of the capitalised overheads reported under Other Direct expenditure in each of the following schedules in Workbook 2: • E2 Mains Replacement • E3 Mains Augmentation • E4 Meter Replacement • E5 New Connections • E6 Non-Network - Telemetry • E13 Other Capex	Actual		Expenditure reported in "Other Direct expenditure' in E12. ICT does not represent capitalised overheads. Refer to that section of the Basis of Preparation for further detail.
Non-reference Services	AGN Victoria and Albury have no Capex to report for Non-reference Services as all of its capital activities relate to Reference Services.	Actual		

E10.2 – Corporate

E10.2.1- Opex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				
Reference Services	AGN Limited does not allocate or account for its internal costs as overheads. This expenditure is reported to the AER as Other Opex and Debt Raising Costs (where applicable). Therefore a Null response is provided to this RIN table.	Null		
Non-reference Services	AGN Limited does not allocate or account for its internal costs as overheads. This expenditure is reported to the AER as Other Opex and Debt Raising Costs (where applicable). Therefore a Null response is provided to this RIN table.	Null		

E10.2.2 – Capex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021				

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Reference Services	As per AGN Limited's Capitalisation Policy, its internal costs are not capitalised.	Actual		
Non-reference Services	As per AGN Limited's Capitalisation Policy, its internal costs are not capitalised. Further, AGN Limited does not have any Capex activities that relate to Non-reference Services. All of AGN Limited's Capex activities for the AGN Victoria and Albury networks relate to Reference Services.	Actual		

Workbook 2 - E12. Information and Communication Technology

E12.1 – Capex – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited (and in turn AGN Victoria and Albury), incur internal labour expenditure in regards to ICT capex for projects managed at the AGIG Group level. This information is recorded in AGN's finance system, SAP Business One (Refer CAM 6.1.2). Analysis of certain general ledger account codes that have been established for these projects, are analysed to identify and extract any internal labour expenditure for reporting to the AER. Further, once these projects are capitalised they are added to AGN Limited's Fixed Assets Registers which are maintained by APA. This expenditure is reported separately and is captured in the following projects: • AGIG IT Strategy and Roadmap and	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Projects with expenditure of less than $500k are aggregated and reported as a single line in the RIN template. All ICT projects reported form part of the Computer Equipment asset class. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Head Office Additions and Other Adjustments" for Other Capex directly incurred by AGN Limited.			
Direct Contractor expenditure	The majority of network capex is performed by APA under the OMA or otherwise outsourced to other external contractors. This capex is categorised as Direct Contractor Expenditure. ICT expenditure includes capital expenditure associated with ICT assets (e.g. physical hardware and software and the associated development and implementation costs that are capitalised in accordance with relevant accounting standards and policies). Expenditure reported for ICT capex projects has been identified with reference to specific project	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	names in APA's Oracle finance system that are known to be ICT projects. Projects with expenditure greater than $500k per annum have been reported separately, with all other projects in this category grouped. The projects reported as ICT capex projects with expenditure greater than $500k per annum are identified by the following activity names in APA's Oracle finance system: • 3198 Major Projects – GIS Consolidation • 3202 Major Projects – Mobility Integration • 3203 Major Projects – Business Intelligence • 3210 Major Projects – EAM Upgrade • 3229 Major Projects – Applications Renewal – CC&B Upgrade • 3235 Major Projects – Biztalk System Upgrade • 3254 Major Projects – Life Support B2B Various other ICT capex projects have also been identified with reference to their project/activity names in APA's Oracle finance system, with expenditure less than $500k per annum, expenditure for these projects has been aggregated and reported as a single line in the RIN template.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	As explained above, AGN Limited (and in turn AGN Victoria and Albury), also incur direct contractor expenditure in regards to ICT capex for projects managed at the AGIG Group level. This information is recorded in AGN's finance system, SAP Business One (Refer CAM 6.1.2). Analysis of certain general ledger account codes that have been established for these projects, are analysed to identify and extract any direct contractor expenditure for reporting to the AER. Further, once these projects are capitalised they are added to AGN Limited's Fixed Assets Registers which are maintained by APA. This expenditure is reported separately and is captured in the following project: • AGIG IT Strategy and Roadmap All ICT projects reported form part of the Computer Equipment asset class. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Head Office Additions and Other Adjustments" for Other Capex directly incurred by AGN Limited.			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Direct Material expenditure	AGN Limited also has Direct Material expenditure in relation to ICT capex (i.e. Infrastructure renewals) which is recorded in AGN's finance system SAP Business One and posted to a General Ledger account code which enables AGN Limited to identify and extract this expenditure for reporting to the AER. Further, this expenditure is added to AGN Limited's Fixed Assets Register which is maintained by APA. There were no internal ICT projects with expenditure that exceeded $500k per annum for the years being reported in the RIN template, therefore this expenditure is reported in the aggregated line of ICT project expenditure less than $500k. All ICT projects reported form part of the Computer Equipment asset class. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Head Office Additions and Other Adjustments" for Other Capex directly incurred by AGN Limited.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Other Direct expenditure	AGN is categorising directly allocated overheads to Other Direct expenditure. However, since 2016, ICT capex no longer receives a proportion of the overhead costs pool. This is further explained in the AGN Limited CAM, section 6.2.3.1 As explained above, AGN Limited (and in turn AGN Victoria and Albury), also incur Other Direct expenditure (non-labour expenditure) in regards to ICT capex for projects managed at the AGIG Group level. This information is recorded in AGN's finance system, SAP Business One (Refer CAM 6.1.2). Analysis of certain general ledger account codes that have been established for these projects, are analysed to identify and extract any other direct expenditure for reporting to the AER. Further, once these projects are capitalised they are added to AGN Limited's Fixed Assets Registers which are maintained by APA. This expenditure is reported separately and is captured in the following project: • AGIG IT Strategy and Roadmap Projects with expenditure of less than $500k are aggregated and reported as a single line in the RIN template.	Actual		

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	All ICT projects reported form part of the Computer Equipment asset class. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • "Head Office Additions and Other Adjustments" for Other Capex directly incurred by AGN Limited.			
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template	Actual		
Capital Contributions	AGN Limited has received no Capital Contributions in relation to expenditure reported as ICT Capex.	Actual		

Workbook 2 - E13. Other Capex

E13.1 – Other Capex – by Project

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
2017 – 2021	*Refer to Appendices A and B for a description of the systems and processes that support AGN Limited's cost capture and reporting of Capex and related Network Overheads presented below.* *Refer to the Regulatory Accounting Principles and Policies and Cost Allocation Methodology documents for guidance on certain expenditure categories that may be included or excluded from capex for regulatory purposes, and in relation to AGN Limited's policies and processes for cost allocation.*			
Direct Internal labour expenditure	AGN Limited does not incur internal labour expenditure in relation to delivery of its Other Capex. Delivery of AGN Limited's Other Capex is mostly performed by APA under the OMA. Any additional Other Capex incurred by AGN Limited is reported in Other Direct Material.	Actual		
Direct Contractor expenditure	Given most Other capex is performed by APA under the OMA or otherwise outsourced to other external contractors, direct Other Capex is all categorised as Direct Contractor Expenditure. Expenditure reported for Other capex projects has been identified with reference to specific project names/activities in APA's Oracle finance system that are known to be miscellaneous other projects that are not otherwise relevant to the other RIN template tables. Projects/activities with expenditure greater than $500k per annum have been reported	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	separately, with all other projects in this category grouped at the activity level. The projects reported as Other capex projects are identified by the following activity names in APA's Oracle finance system and includes for example Mains Alteration expenditure, Other Regulated Capex and other Non-Reticulation capital. • 2106 C P – Corrosion Protection – Capex <$500k • 2130 Mains Alteration – Chargeable – Capex • 2131 Mains Alteration – Non Chargeable – Capex • 2139 Network – Regulator Stay In Business • 2142 Network – Regulator Capex • 2152 Network – Stopple Equipment • 2190 Other – Non Retic Capital • 3056 Major Projects – Melbourne Metro Rail • 3006 Major Projects – Pakenham City Gate • 3053 Major Projects - RACV Cape Schank • 3106 Major Projects – H07 Cranbourne HP Augmentation – City Gate • 3111 Major Projects – Logic Industry Park Wodonga • 2461 – Transmission Pipeline - Enhancements • 2140 Water Bath Overhaul • 2107 Pipeline Pigging (No modifications)			The total amount reported for Direct Contractor expenditure for Other Capex in 2017 differs to what was reported in the Historic Annual RIN by ($4,879). This is a result of an incorrect allocation of a project in the Annual RIN which has now been corrected in the RESET RIN. Refer also E4. Meter Replacement and E5. New Connections Capex. The AGN Vic Historical Performance Data RIN for 2011-2017 will be re-submitted on 01/07/2022.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 2108 Pipeline DCVG Survey • Major Projects – Capex <$500k Other Capex projects (inclusive of both direct and overhead expenditure) in the most part, form part of the Other Asset, asset class. However, the following projects have been allocated against multiple asset classes: 3106 Major Projects – H07 Cranbourne HP Augmentation in 2021: • Mains and Services 71% (Mains) • Other Assets 29% (City Gate) 3020 Major Projects – Wandong (included in Major Projects – Capex <$500k) in 2017 and 2018: • Mains and Services 95% (Mains) • Other Assets 5% (City Gate) 2901 Major Projects – Merrifield (included in Major Projects – Capex <$500k) in 2017 and 2018: • Mains and Services 74% (Mains) • Other Assets 26% (City Gate) 3111 Major Projects – Logic Industry Park Wodonga in 2020:			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• Mains and Services 12% (Mains) • Meters 24% (Meter) • Other Assets 64% (City Gate) 3111 Major Projects – Logic Industry Park Wodonga in 2021: • Mains and Services 9% (Mains) • Meters 30% (Meter) • Other Assets 61% (City Gate) Note: the above project 3111 Major Projects – Logic Industry Park Wodonga, is fully funded so the equal amount is also recorded as a contribution under the same asset classes, therefore net capex for this project is nil.			
Direct Material expenditure	AGN Limited also has Direct Material expenditure which is recorded in SAP Business One and posted to a General Ledger account code which enables AGN Limited to identify and extract this expenditure for reporting to the AER. Further, this expenditure is added to AGN Limited's Fixed Assets Register which is maintained by APA. There were no Other capex projects with expenditure that exceeded $500k per annum for the years being reported in the RIN template,	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	therefore this expenditure is reported in the aggregated line “Major Projects <$500K”. Refer to Appendix C for a description of the adjustments made due to regulatory accounting policies. Specifically see adjustment types: • “Head Office Additions and Other Adjustments” for Other Capex directly incurred by AGN Limited			
Other Direct expenditure	AGN is categorising directly allocated network overheads to Other Direct expenditure. Refer to Appendix B for an explanation of relevant processes and methodologies that apply to Overhead expenditure This is further explained in the AGN Limited CAM. Network overheads have been applied to each project and each group of assorted projects on a pro-rata basis, based on the level of direct expenditure and the applicable overhead rate for each year, which enables the total capitalised to be amortised across each project or group of projects. Network overheads allocated by APA to these projects represents the overheads recorded in APA’s Oracle finance system at the time expenditure was incurred.	Actual		Note: Negative amounts reported in the RIN template represent reversal of accruals.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	Network overheads include an allocation NMF paid by AGN Limited, which for statutory accounting purposes 65% of the total remains in capitalised network overheads. As per the Regulatory Accounting Principles and Policies document, for regulatory purposes, 50% of the NMF is reported as operating expenditure. Network overheads that have been applied to this category of capex represent a pro-rata allocation of the overheads that have been allocated by APA to all Other Capex projects and activities listed above.			
Related Party margin expenditure	AGN Limited does not have any Related Party Margin expenditure to report in the RIN template	Actual		
Capital Contributions	The amount of Capital contributions reported for Other Capex is derived from the amounts of related capex incurred, as reported by APA in the Capex Data Model (with an adjustment to remove the allocated NMF). The Capex Activities in APA's Oracle finance system related to this category of Capex are: • 2130 Mains Alteration – Chargeable – Capex • 3056 Major Projects – Melbourne Metro Rail	Actual	Capital contributions for works undertaken at customers' request are typically received up-front or in milestone payments that do not necessarily match the timing of related expenditure incurred by AGN Limited. Accordingly, in order to match Capital contributions received with related Capex	

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	• 3053 Major Projects – RACV Cape Schank • 2107 Pipeline Pigging (No modifications) • 3111 Major Projects – Logic Industry Park Wodonga • Major Projects – Capex <$500k These Capital contributions predominantly relate to funded mains alteration projects. The nature of these projects is to undertake work at customers' request which they fund, for example to relocate assets due to major infrastructure projects.		incurred, the amounts reported for Capital contributions related to Other Capex has been derived from the amounts of Capex incurred on these projects. Rather than deriving these amounts from payments received, this approach is considered by AGN Limited to be a better representation of the Capital contributions relating to the activity undertaken in each year.	

Workbook 3 - Efficiency Carryover Mechanism

7.5.1 – The carryover amounts that arise from applying the ECM during the current regulatory control period

7.5.1.1 – Opex Allowance applicable to ECM

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Total Opex Allowance	**2016-2017 ($Dec 2012)** AER approved forecast in $Dec 2012 from AER published Envestra Victoria and Albury Final Decision PTRM March 2013 (EXC debt raising costs, INC ancillary reference services excluding UAFG) **2018-2022 ($Dec 2017)** AER approved forecast in $Dec 2017 from AER published AGN Victoria and Albury Final Decision PTRM 2018-2022 (inc debt raising costs, ancillary reference services excluding UAFG)	Estimate	Estimate approved by AER as part of prior GAAR.	2016-2017 Follows same logic as AER Final Decision Efficiency Carryover mechanism in published PTRM. 2018-2022 follows logic set out in Access Arrangement.
Debt raising costs	**2016-2017 ($Dec 2012)** Not included **2018-2022 ($Dec 2017)** AER approved forecast in $Dec 2017 from AER published AGN Victoria and Albury Final Decision PTRM 2018-2022	Estimate	Estimate approved by AER as part of prior GAAR.	2016-2017 Follows same logic as AER Final Decision Efficiency Carryover mechanism in published PTRM. 2018-2022 follows logic set out in Access Arrangement.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Insurance	N/A			
Superannuation costs for defined benefits and retirement schemes	N/A			
Other specific non controllable costs	**2016-2017 ($Dec 2012)** ESV Levy Victoria and Albury AER approved forecast in ECM tabs from AER published AGN Victoria and Albury Final Decision PTRM 2018-2022 **2018-2021** None	Estimate	Estimate approved by AER as part of prior GAAR.	2016-2017 Follows same logic as AER Final Decision Efficiency Carryover mechanism in published PTRM. 2018-2022 follows logic set out in Access Arrangement.
Retailer of last resort costs	N/A			
Capitalisation policy changes	N/A – constant regulatory capitalisation policy through AA.			
Change in scope adjustment	**2016-2017 ($Dec 2012)** AER approved forecast in ECM tabs from AER published AGN Victoria and Albury Final Decision PTRM 2018-2022 **2018-2021**	Estimate	Estimate approved by AER as part of prior GAAR.	2016-2017 Follows same logic as AER Final Decision Efficiency Carryover mechanism in published PTRM.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	None			2018-2022 follows logic set out in Access Arrangement.

7.5.1.2 – Actual and Estimated Opex applicable to ECM

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Total Opex (inc debt raising costs, ancillary reference services excluding UAFG)	**2016-2017 ($Nominal)** From unpublished Australian Gas Networks Victoria Albury Annual RIN Reporting Templates submitted to AER **2018-2021 ($Nominal)** From published (2021 yet to be published) Australian Gas Networks Victoria Albury Annual RIN Reporting Templates	Actual		2016-2017 Follows same logic as AER Draft Decision Efficiency Carryover mechanism which was used for Final Decision and template sent from AER for half year carryover calculation in 2023. 2018-2022 follows logic set out in Access Arrangement
Debt raising costs	**2016-2017 ($Nominal)** From published Australian Gas Networks Victoria Albury Annual RIN Reporting Templates **2018-2021 ($Nominal)**	Actual		2016-2017 Follows same logic as AER Draft Decision Efficiency Carryover mechanism which was used for Final

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
	From published (2021 yet to be published) Australian Gas Networks Victoria and Albury Annual RIN Reporting Templates			Decision and template sent from AER for half year carryover calculation in 2023. 2018-2022 follows logic set out in Access Arrangement
Insurance	N/A			
Superannuation costs for defined benefits and retirement schemes	N/A			
Other specific non controllable costs	**2016-2017 ($Nominal)** License Fees, ESV Levy, Network Management Fee and Incentives from unpublished Australian Gas Networks Victoria Albury Annual RIN Reporting Templates submitted to the AER **2018-2021** None	Actual	Consistent with template sent from AER for half year carryover calculation in 2023.	2016-2017 Follows same logic as AER Draft Decision Efficiency Carryover mechanism which was used for Final Decision and template sent from AER for half year carryover calculation in 2023.
Opex associated with approved cost pass through	N/A			

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Capitalisation policy changes	N/A			
Movements in provisions related to opex	**2016-2017 ($Nominal)** **Movement in provisions** From unpublished Australian Gas Networks Victoria and Albury Annual RIN Reporting Templates submitted to the AER **2018-2021 ($Nominal)** **Movement in provisions** Calculated from provisions published (2021 yet to be published) in Australian Gas Networks Victoria and Albury Annual RIN Reporting Templates	Actual	Consistent with template sent from AER for half year carryover calculation in 2023 and Finance advice on calculations for 2018-2021.	As per access arrangements in 2016-2017 and 2018-2022, consistent with template sent from AER for half year carryover calculation in 2023.

Workbook 6 - CESS

Reported Capex

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Total Capex	2018-2021 Published AGN Victoria and Albury Annual RIN Templates (2021 yet to be published)	2018-2021 Actuals/2022 Estimate	2022 not over by the time RIN due.	2022 Estimate sourced from Final Plan Roll-Forward Model
Customer Contributions	2018-2021 Published AGN Victoria and Albury Annual RIN Templates (2021 yet to be published)	2018-2021 Actuals/2022 Estimate	2022 not over by the time RIN due.	2022 Estimate sourced from Final Plan Roll-Forward Model
Asset Disposal	None			
Other excludable Capex	None			

Reported Performance

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Customer numbers	ESV tracking report Distribution annual customers total	Actual		As specified by the AA to use ESV reporting.

Variable	Data source, Methodology and Assumptions	Actual / Estimate	Justification (if estimated)	Additional Comments
Length of mains	Specification tracking spreadsheet reported to ESV Distribution annual Total KMS gas distribution mains	Actual		As specified by the GAAR to use ESV reporting.
Unplanned outages	Specification tracking spreadsheet reported to ESV Distribution quarterly Number of customers affected by unplanned outages for company as a whole	Actual		As specified by the GAAR to use ESV reporting.
Minutes off Supply	Specification tracking spreadsheet reported to ESV Distribution quarterly Number of minutes of gas supply lost through unplanned outages for company as a whole	Actual		As specified by the GAAR to use ESV reporting.
Publicly reported gas leaks	Specification tracking spreadsheet reported to ESV	Actual		As specified by the GAAR to use ESV reporting.

Appendix A: Cost Collection and Reporting Process - Capex

The following description of AGN Limited's cost collection process for capital expenditure applies to the information previously reported to the AER (e.g.in the Annual RIN's) and to financial information now being reported for the Reset RIN years (2017-2021).

Source of financial data

As advised in previous submissions to the AER, the financial data used to complete the RESET RIN for the regulatory years 2017-2021 is sourced from AGN Limited's finance system (SAP Business One) and from information provided by AGN Limited's principal capital delivery contractor, APA Asset Management (APA). AGN Limited utilises Excel spreadsheets to consolidate detailed financial information provided by APA with information from its own finance system and to undertake cost allocation processes, for the purpose of producing the data required to complete the AER regulatory templates. This information and the associated processes are explained further below.

AGN Limited's capital delivery contractor (APA)

When AGN Limited was known as Envestra Limited (Envestra), the delivery of its distribution network capex program was out-sourced to APA under an operating and management agreement. This arrangement (the 'OMA') commenced on 2 July 2007 and has continued since that time, including through Envestra's change of ownership and rebranding as "Australian Gas Networks" in October 2014.

APA charges AGN Limited for these services on a 'cost pass-through' basis each month, plus the agreed Network Management Fee (NMF). The NMF represents APA's margin under the agreement.

APA's business support and overhead costs are allocated to capital expenditure in accordance with the processes outlined in the AGN Limited Cost Allocation Methodology (CAM) provided on 31 March 2021 with the Annual RIN (for initial regulatory years 2011 to 2019). For regulatory accounting purposes in relation to AGN Victoria and Albury, AGN Limited capitalises 50% of the NMF paid to APA, in accordance with AGN Limited's Regulatory Accounting Principles and Policies document for Victoria and Albury.

Source of financial data provided by APA

APA uses an enterprise resource planning system (Oracle) and an asset management system (Maximo) to capture costs which are assigned to master data identifiers including tasks, activities and expense types. In addition, with the use of additional master data identifiers, being project codes and cost centres,

APA records its expenditure against specific regulated and unregulated gas pipelines operated by AGN Limited in each state and to relevant regions within each state (also referred to as business zones).

APA provides detailed information about capital expenditure on AGN Limited's regulated and unregulated pipelines directly from Oracle and via its business intelligence (BI) tool 'Cognos'. The output created from this is known as the Ring Fenced Accounts (RFA). The RFA is prepared by APA each half year and reports on all expenditure (operating and capital), including the capitalisation of support and shared business costs, and allocations into each of AGN Limited's regulated and unregulated business zones. The RFAs have been, and continue to be a key source of data for regulatory reporting purposes. Amongst other things, capital expenditure information from the RFAs is used to reconcile to the additions to the fixed assets register for the Victorian and Albury networks.

In addition to the RFA, from 2020 APA have been able to provide a greater level of detail that underpins the Victorian and Albury networks regulated capital in Excel spreadsheet format (referred to as the Capex Data Model).

AGN Limited fully reconciles all sources of capital expenditure reporting provided by APA with its own SAP general ledger, separate billing data received from APA and with reporting provided in the AER regulatory templates.

AGN Limited business systems and cost capture

AGN Limited utilises SAP Business One (SAP) to capture costs at the general ledger account code, department and state level where applicable. Given the arrangements with APA, AGN Limited does not operate a full enterprise resource planning (ERP) system. Within SAP, AGN Limited utilises the general ledger and accounts payable module.

Monthly charges invoiced from APA are recorded in AGN Limited's general ledger via journal entries which assign costs to general ledger account codes, departments and state codes. These entries provide control totals against which separate reporting provided by APA, including Monthly Management and Operating Reports, is able to be reconciled.

The detailed view of network capital expenditure delivered by APA is provided via separate reporting outside of AGN Limited's core finance systems, as described above (e.g. the Ring Fenced Accounts, via Cognos BI reporting tools and the Capex Data Model in Microsoft Excel format). This information is used to complete the AER regulatory templates.

Adjustments are made by AGN Limited to the network capital expenditure reported by APA which are recorded in the Excel spreadsheets that form the working papers which support the data reported in the regulatory templates. These adjustments are in accordance with AGN Limited's Regulatory Accounting Principles and Policies document and the Capitalisation Policy.

AGN Limited's internal non-network capital expenditure, primarily relating to corporate ICT systems and office furniture and fittings and AGIG's IT Capital expenditure, is captured in the SAP general ledger by account code, which enables reporting against categories defined in the AER regulatory templates.

AGN Limited does not capitalise any of its general corporate management and administration costs for regulatory accounting purposes, which is in accordance with the Regulatory Accounting Principles and Policies document and the Capitalisation Policy.

Reconciliation of data and information reported to the AER

As already mentioned above, AGN Limited fully reconciles all sources of capital expenditure reporting provided by APA, back to control totals in its own SAP general ledger, additions to the fixed assets register for Victoria and Albury and separate invoices received from APA which are entered into the general ledger. Further, all information provided to the AER in the regulatory templates is also reconciled back to AGN Limited's SAP general ledger.

Appendix B: Overhead Expenditure

The following description of AGN Limited's overhead expenditure as it relates to capital expenditure reporting in the regulatory templates, applies to the information previously reported to the AER (e.g.in the Annual RIN's) and to financial information now being reported for the Reset RIN years (2017-2021).

Background

When AGN Limited was known as Envestra Limited (Envestra), the operation and management of its distribution network, including delivery of its capital program, was out-sourced to APA Asset Management (APA) under a long-term agreement. This agreement (the 'OMA') commenced on 2 July 2007 and has continued in various forms since that time, including through Envestra's change of ownership which led to its re-branding as "Australian Gas Networks" in October 2014. The OMA provides for APA to recover all of its costs in delivering services to AGN Limited including a share of its business support and overheads.

Network overheads allocated to capital expenditure

Expenditure by AGN Limited under the above mentioned OMA, includes a proportion of APA's business support and overhead costs which are identified through reporting mechanisms outlined below. A proportion of these overhead costs are capitalised by AGN Limited consistent with the AGN Limited Cost Allocation Methodology (CAM) provided 31 March 2021 with the Annual RIN (for initial regulatory years 2011 to 2019).

Other than the overhead costs charged by APA as the principal capital delivery contractor, AGN Limited does not capitalise any of its internal expenditure, unless it can be specifically linked to a capital activity (e.g. a corporate IT project). This is in accordance with AGN Limited's Regulatory Accounting Principles and Policies document and Capitalisation Policy.

The processes applied by APA in capturing, allocating and reporting its relevant overhead costs, is outlined in detail within the AGN Limited CAM and in Appendix A of this Basis of Preparation document.

APA's business systems and associated processes facilitate the allocation of network overheads to each of the separate regulated and unregulated gas pipelines owned by AGN Limited. Further, these overheads are also able to be allocated to the various categories and sub-categories of capital expenditure, using functionality and master data identifiers within those business systems.

A key process in allocating APA's network overheads is the production of the 'Ring Fenced Accounts' (RFAs) which are explained in Appendix A of this Basis of Preparation document. The RFAs report capital expenditure inclusive of network overheads (e.g. embedded within each category of capex) that have

been allocated across each of the regulated and unregulated gas pipelines owned by AGN Limited. The RFAs also report the amount of network overheads that have been expensed as operating expenditure in each business zone. The Capex Data model now supplied by APA, separately reports capital expenditure by direct costs and network overheads to allow population of the RESET RIN. AGN Limited has utilised "Other Direct expenditure" in each Capex category to report the allocation of network overheads to each activity/project.

There are two levels of network overheads charged by APA that is capitalised by AGN Limited. Those being 'state based' network overheads and 'national based' network overheads. Each level of network overheads is identified and captured in separate 'cost pool'.

The amount of APA's network overheads that is capitalised is initially determined by dividing the total annual budgeted overhead cost pool (relating to capital delivery services provided to AGN Limited) into the total budgeted capital expenditure to be delivered on behalf of AGN Limited.

The portion of APA's network overheads to be capitalised is allocated to the various categories and sub-categories of capital expenditure based on the level of spend in each category and applied as a percentage rate. There is a separate rate for each state, based on the level of 'state based' overheads in each state. There is another common rate for applying 'national based' overheads consistently across all states, based on the level of expenditure.

APA utilises suspense accounts to capture all actual overhead costs in its general ledger and the amount of network overheads capitalised during the year by applying the standard percentage rates. At any time the balance of the suspense account represents the difference between the actual overhead cost pool expenditure and the amounts applied to capital expenditure each month which are based on the budgeted percentage rates. Each year APA performs a 'true-up' process that reconciles actual overhead costs to the budgeted amounts and any necessary reconciliation adjustments are made in the year-end accounts.

The network overheads that are capitalised are allocated to AGN Limited's regulatory business zones (states) in which the capital project or activity is assigned to. Capital projects and activities are generally only assigned to one regulatory business zone, with the exception of non-network related national IT projects which are allocated to each zone (state) based on customer numbers (excluding non-material small pipelines).

The capitalised network overheads allocated to AGN Limited's pipelines in Victoria and Albury are first pooled together and then allocated to Victoria and Albury based on the level of Capex spend in Victoria and Albury.

Appendix C: Regulatory accounting policy and other adjustments

The information set out below, describes the basis of preparation for capital expenditure reported in the AER regulatory templates, where adjustments were required in the working papers used to prepare the data, due to regulatory accounting principles and policies or any other reasons noted below.

Adjustment type	Purpose	Notes for Basis of Preparation
Network Management Fee	Regulatory accounting treatment is different to Statutory accounting	In accordance with the Regulatory Accounting Principles and Policies document, AGN Limited capitalises 50% of the Network Management Fee (NMF) paid to its capital delivery contractor, APA Asset Management (APA) under the network operations and management agreement (OMA). This is consistent with previous approved access arrangements for Victoria and Albury since 2008, as set out in the Regulatory Accounting Principles and Policies document. For Statutory Accounting purposes, 65% of the total NMF is capitalised and this amount is included in the gross Capex reporting received from APA (i.e. the Capex Data Mode/Ring Fenced Accounts). Therefore, 15% of the total NMF needs to be adjusted to Opex for regulatory purposes. The NMF amount is not separately identified in this Capex reporting but forms part of the reported Network Overheads that were capitalised by APA. The total NMF paid to APA each year is confirmed against invoices received and other management reporting provided to AGN Limited by APA. The other 35% of the NMF appears in AGN Limited's operating expenditure and is separately shown in Opex management reporting received from APA (i.e. the Ring Fenced Accounts which are explained in the Cost Allocation Methodology and Appendices A and B to this Basis of Preparation document). To determine the adjustment required for regulatory Capex reporting, AGN Limited takes the Opex amount of NMF for each year and grosses it up, dividing the amount by 0.35 (e.g. $2.45m / 0.35 = $7m). The result represents 100% of the NMF for that year (e.g. $7m). This total is then multiplied by 0.15 to determine the amount of NMF in Capex reporting for that year which needs to be adjusted to Opex for regulatory reporting purposes (e.g. $7m x 0.15 = $1.05m).

Adjustment type	Purpose	Notes for Basis of Preparation
		This amount of NMF that has been included in capitalised overheads for the year (e.g. $1.05m) is deducted from each Capex activity in proportion to the Network Overheads that were capitalised in each activity. Given the network overheads are pooled between Victoria and Albury before being allocated to Capex based on spend, the amount of NMF in capitalised overheads is not exactly 65% individually in Victoria and Albury. Therefore, it is necessary for AGN Limited to calculate the regulatory accounting adjustment for NMF against the total NMF that has been capitalised across both Victoria and Albury and to re-balance the amounts capitalised in each pipeline accordingly. That is, the amount of Network Overheads in each Capex activity, as a percentage of the total Network Overheads capitalised in that year, determines the share of the NMF adjustment that is made to each Capex activity each year. <u>Mapping to the AA RIN templates</u> Adjustments made to remove the NMF from Capex reporting impacts each Capex activity which has received an allocation of APA's network Overheads in each year (i.e. all network Capex Activities, excluding Capex on ICT projects).
Marketing Rebates	Regulatory accounting treatment is different to Statutory accounting	In accordance with the Regulatory Accounting Principles and Policies document, AGN Limited has consistently treated expenditure on Marketing Rebates as Opex for regulatory accounting purposes. Since 1 January 2016 AGN Limited has capitalised the rebates relating to existing customers for Statutory accounting purposes. From January 2016 to 2019, the methodology applied to determine this adjustment for regulatory accounting purposes is as follows: Expenditure on Marketing Rebates is identified by AGN Limited in working papers provided by APA that calculate the rebates paid to existing customers for any additional (applicable) gas appliances they connect. This expenditure is represented by a standard cost multiplied by the number of rebates offered each month.

<table>
<tr><th>Adjustment type</th><th>Purpose</th><th>Notes for Basis of Preparation</th></tr>
<tr><td></td><td></td><td>These amounts are totalled for each year and recorded as an adjustment to the following Capex Activity which is the Activity to which the initial expenditure is mapped in APA's Oracle finance system.

<table><tr><th>Activity</th><th>Activity Level6 Desc_MP</th></tr><tr><td>2516 New Service – Existing Home</td><td>Inlets</td></tr></table>
From February 2020 (when the majority of the Marketing function was bought in-house), all Marketing Rebates in the first instance were treated as opex for Statutory accounting purposes. Then on a quarterly basis, the relevant rebates are transferred from opex to capex via a general ledger journal.

For Regulatory accounting purposes this capitalisation journal is effectively reversed to treat all Marketing Rebates as opex.

<u>Mapping to the AA RIN templates for 2017-2019</u>
Expenditure and associated adjustments recorded against the activities listed above, are reported in the AA RIN tables as follows:

<table><tr><th>Activity</th><th>AA RIN tab / table / connection type</th></tr><tr><td>2516 New Service – Existing Home</td><td>E5. New Connections / E5.1.1 Capex by Connection Type / New Home</td></tr></table></td></tr>
<tr><td>Head Office Additions and other adjustments</td><td>AGN Limited internal expenditure not included in APA Ring Fenced Accounts data</td><td>AGN Limited records internal non-network Capex in its SAP Business One finance system. This expenditure primarily relates to corporate ICT systems (including AGIG IT Capex projects) and office furniture and fixtures.

Non-network Capex is recorded in the General Ledger on an accruals basis against applicable General Ledger account codes which identifies its purpose and asset class. Further this expenditure is recorded in AGN Limited's Fixed Assets Register (FAR) and included in periodic reconciliations of additions to the FAR.

As explained elsewhere in this basis of preparation, the detailed analysis of AGN Limited's network Capex program is provided by AGN Limited's capital delivery contractor APA. This information, in the form of Microsoft Excel spreadsheets populated with data extracted from APA's Oracle finance system (e.g. the</td></tr>
</table>

Adjustment type	Purpose	Notes for Basis of Preparation
		Capex Data Model) forms the basis of working files prepared by AGN Limited to produce the data and present it in the categories and sub-categories required for AER reporting. AGN Limited's internal non-network Capex is manually added to these working files. Total Capex reported to the AER, being the combination of Capex delivered by APA and AGN Limited's internal Capex, is reconciled to AGN Limited's General Ledger and Fixed Assets Register and these reconciliations are provided to auditors as part of the assurance process. ICT related Capex is reported in tab E12. ICT in the AA RIN templates. Office furniture and fixtures related Capex is reported in tab E13. Other capex in the AA RIN templates. AGN Limited also makes other adjustments to the Capex analysis provided by APA to remove any Capex related to unregulated pipelines, where this has not already been recorded by APA, which is the ordinary process.