Eastern Gas Pipeline

Basis of Preparation

Public

Year ended 31 December 2019

Jemena

OVERVIEW

The Australian Energy Regulator (AER) issued a non-scheme pipeline financial reporting guideline (the Guideline) in December 2017 issued under Part 23 of the National Gas Rules. This guideline requires service providers of such pipelines to publish certain financial information about those pipelines.

This guideline applies to the Eastern Gas Pipeline (**EGP**) covering the reporting period 1 January to 31 December 2019.

To apply the guideline we have adopted the following general interpretations:

- All Jemena Group[1] legal entities that have a controlling interest in EGP are 'service providers' and so all costs incurred, revenue earned or assets owned by those entities that relate to the pipeline should be captured and consolidated in the financial reporting templates.
- Similarly, because SGSPAA is the parent company of the Jemena Group acquisition costs and associated dates (mainly in the Recovered Capital Method (**RCM**) template) are determined by reference to that entity for the purposes of complying with the guideline. This means for instance that acquisition of the EGP occurred on 1 Aug 2007 when the Jemena Group acquired the pipeline from the Alinta Group.
- EGP has amended some of the formulae in the templates where the resultant outcome was inconsistent with the intent of the Guideline. These changes are explained in this basis of preparation (**BoP**) document.
- Actual information includes information calculated directly from information contained in Jemena Group's systems and other records without material judgement required. Estimated information is anything other than actual information
- To meet the requirements of the Guideline when compiling the RCM valuation (section 4.1) EGP undertook all reasonable steps to obtain historical information where this was not already available to the Jemena Group. These steps are further explained in the RCM section of this basis of preparation.
- All 'Previous reporting period' amounts have been sourced from the prior year published Gas Market Reform (**GMR**) templates (refer to Tables: 2.1, 2.1.1, 3.1, 3.3).
- Jemena Group costs are direct or indirect in nature. Direct costs, such as maintenance, program management, engineering support are directly allocated to specific assets within the Jemena Group. Jemena Group shared or indirect costs such as IT, finance, legal, people, safety and environment are allocated to specific assets within the Jemena Group in accordance with the principles of the Jemena Group Cost Allocation Methodology procedure. These principles are further explained in the Revenue and Expenses section (section 3) of this basis of preparation. From 1 July 2019, Jemena Group stood up a new market based structure replacing the previous functional organisation structure. The shared costs information has been compiled based on the organisational structures in place during the year.

The rest of this basis of preparation document explains how we have populated each of the templates required by the Guideline, including by identifying where estimated data was used when actual data was not available.

As per the Jemena Group access user guide, Jemena Eastern Gas Pipeline (1) Pty Ltd and Jemena Eastern Gas Pipeline (2) Pty Ltd are the service providers for EGP, being the licensed operators. The other service providers in the Jemena Group have appointed Jemena Eastern Gas Pipeline (1) Pty Ltd and Jemena Eastern Gas Pipeline (2) Pty Ltd as the responsible service provider for the purposes of publishing the financial information.

[1] The Jemena Group includes SGSP (Australia) Assets Pty Ltd (**SGSPAA**) and its subsidiaries excluding Zinfra Pty Ltd and its subsidiaries. Jemena Group costs may include charges from Zinfra Pty Ltd and its subsidiaries where they relate to the pipeline.

1. PIPELINE INFORMATION

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 1.1: Pipeline Details	No BoP Reference cells in the template	Pipeline details	Actual	Pipeline Location and Length The data is sourced either from the original as-built survey data, or where that is not available from the results of intelligent pigging data. Number of Customers PypIT System (defined below) per description below for the Table 5.1 Weighted Average Prices Service Type As per pipeline type on AEMC's gas scheme register https://www.aemc.gov.au/energy-system/gas/gas-scheme-register and meets the definition of a transmission pipeline under the National Gas Law.	Pipeline Location and Length The pipeline lengths are calculated in the Geographic Information System (**GIS**) by summing the geometric lengths of the pipeline and all its laterals. Number of Customers Determined from a revenue report run in PypIT outlining the breakdown of revenue by service type and shipper. The report was run for the relevant period to determine the number of shippers whom we have earnt revenue from.	N/A
Table 1.2: Pipeline Services Provided	No BoP Reference cells in the template	Pipeline services provided	Actual	PypIT (Is the billing/invoicing system used by EGP which provides the detailed breakdown of volumes and revenue data by service type and	Based on current service offerings as described below. Service description A revenue transaction report that discloses revenue by service types, was downloaded from PypIT for the reporting period. A Subject Matter Expert mapped the revenue service types against the relevant 'Service description'	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
				shipper as well as the corresponding contract information).	categories based on the nature of the underlying revenue transactions and customer contracts. Provided to non-related parties All services were provided to non-related parties in accordance with PypIT customer listing and relevant supporting contracts. Provided to related parties No services were provided to related parties.	

2. FINANCIAL PERFORMANCE MEASURES

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 1.1.1: Return on assets	No BoP Reference cells in the template	Earnings before interest and tax, Total assets, Return on assets	Actual	N/A – Populated based on formulas referencing supporting schedules.	All categories in this template are based on the Australian Energy Regulator's (**AER**) designed formulae that references the supporting tables within the workbook. Earnings before interest and tax References earnings before interest and tax (EBIT) in 'Table 2.1: Statement of pipeline revenues and expenses'. Total assets References total assets in 'Table 3.1: Pipeline assets' Return on assets Calculated as: Earnings before interest and tax divided by Return on Assets.	

3. REVENUES AND EXPENSES

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 2.1 Statement of pipeline revenues and expenses	2.1.a	Total service revenue, Other direct revenue, Other revenue	Actual	Populated based on formulas referencing supporting schedules.	Total service revenue References 'total direct revenue' 'Table 2.1.1: less 'Other Direct Revenue'. Other direct revenue References 'other direct revenue' in 'Table 2.1.1: Revenue by service'. Other revenue References the total 'other indirect revenue' in 'Table 2.3.1: Indirect revenue allocation'.	
Table 2.1 Statement of pipeline revenues and expenses	2.1.b	Direct Costs, Shared Costs, Earnings before interest and tax (EBIT)	Actual	ERP System (**SAP**)	Most of the entities within the SGSPAA and its controlled entities use an Enterprise Resource Planning (**ERP**) system known as **SAP** to collect costs. The Eastern Gas Pipeline (**EGP**) as part of the Jemena Group, uses SAP to record its financial transactions. Costs are collected in planned maintenance orders (**PMO**) that cascade up to projects (**WBS elements**) in SAP based on the activity, on which an employee works or where an external supplier provides goods/services.	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					A reporting tool (**BI**) is used to download the operating expenditure costs from SAP. The data is aggregated by WBS element and general ledger account code (**cost element**) and mapped into the relevant cost category of the template. <u>Related party and non-related party</u> The majority of costs that EGP incurs are sourced from a related entity, Jemena Asset Management Pty Ltd (**JAM**), which is part of the Jemena Group. JAM records costs that are attributable to EGP and uses SAP functionality to transfer such costs at zero margin to EGP. These costs are reported in the 'related party transactions' column. Where project costs are collected directly to the pipeline and not through a related party entity they were reported in the 'amounts excluding related party transactions' column. <u>Direct costs and Shared costs</u> Direct and shared cost classification is based upon the activity/service category codes included as part of the WBS element structure for each project. An activity/service mapping table is used to map activities into relevant cost categories:	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					• Direct Costs: Asset Management (Asset: Strategy, Planning, Investment, Information and Management system activities), Service Delivery (Construction & Supply Chain, Maintenance & Faults, Network Control & Emergency Maintenance, Metering, Customer Service), Customer and Markets (Commercial Management). • Shared Costs: Enterprise Support Functions (executive management, finance, legal, human resources, information technology (**IT**) etc.). ***Note***: Shared costs flow into Table 2.1 from Table 2.4 1 Shared cost allocation. It should be noted that corporate property costs have been further allocated between direct and shared costs in the template as EGP's Asset Management, Service Delivery, Customer and Markets and Enterprise Support Functions share corporate properties. EGP splits these costs into direct and shared costs using a functional seating allocator split (mainly for direct functions) and historic time-writing data (mainly for the enterprise support functions). <u>Mapping into the template categories</u> The cost element description field from costs within EGP was used to map into the template's categories (e.g. 'wages', 'other direct costs', 'employee costs', 'indirect operating expenses', etc.). EGP has interpreted direct wages as the payroll costs assigned to staff who directly work on the pipeline. EGP's shared employee costs are the	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					allocated payroll costs of administration type staff such as finance, legal, people, safety and environment. Where project descriptions and activity/service category codes support classification within a more specific category then the cost element based mapping was overridden[2]. The following description categories were populated based on project description/activity code mapping: • Information technology and communication costs • Rental and leasing costs • Repairs and maintenance • Licence and regulatory costs • Leasing and rental costs Note: Insurance costs are included in the enterprise supports costs which are shared across the Jemena Group, therefore a $nil value has been reported for Direct Insurance costs. <u>Earnings before Interest and tax (EBIT)</u> EBIT is calculated as: Total revenue less Total costs	
Table 2.1 Statement of pipeline revenues	2.1.c	Depreciation, Shared Asset Depreciation	Actual	SAP – Fixed Asset Movement Report (**FAMR**) and Equipment Register	A detailed FAMR was downloaded from SAP.	

[2] Labour cost element mapping was not overridden based on project descriptions and activity/service category code mapping.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
and expenses					Total depreciation was classified between direct depreciation and shared asset depreciation based on the mapping of the individual assets in the FAMR applied in Table 3.3 Depreciation. EGP used the FAMR Asset descriptions, category and equipment register descriptions to map individual assets into specific categories. All depreciation expenses are recorded directly within the Pipeline and are not transferred from a related party entity and therefore are reported in the 'Amounts excluding related party transactions' column.	

4. REVENUE BY SERVICE

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 2.1.1: Revenue by service	2.1.1.a	Description, Reporting period - Amount excluding related party transactions, Reporting period - Related party transactions	Actual	PypIT and SAP	Description The 'description' categories are pre-populated by the AER for this template. Reporting period -Amount excluding related party transactions Direct Revenue Revenue by service is sourced from the WAP template where a revenue transaction report that discloses revenue by service types, was downloaded from the PypIT for the reporting period. A Subject Matter Expert mapped the revenue service types against the relevant 'Service description' categories based on knowledge and the nature of the underlying revenue transactions. EGP has included other revenue items that is not sourced from PypIT. These include miscellaneous revenue items such as profit from sale of fixed assets and revenue from non-gas transportation activities. Revenue Reporting period -Related party transactions EGP did not have any revenue from its related parties.	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
	2.1.1.b	Customer Contributions	Actual	SAP	<u>Customer Contributions Revenue</u> References 'revenue contributions' in 'Table 2.2'	
	2.1.1.c	Revenue Profit from sale of fixed assets	Actual	SAP	<u>Profit from sale of fixed assets</u> EGP captures such amounts in its accounting systems and was sourced from the EGP's Trial Balance (**TB**).	
	2.1.1.c	Other Direct Revenue	Actual	SAP/PypIT	<u>Other Direct Revenue</u> Includes: • Items that are not pipeline service related and is miscellaneous in nature. EGP collects such items using costs elements and projects; and • That is exempt WAP services.	

5. REVENUE – CONTRIBUTIONS

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 2.2.1: Customer contributions received	No BoP Reference cells in the template	N/A	Actual	SAP	No customer contributions revenue was received during the reporting period as such amounts would have been recorded against an appropriate cost element in EGP's TB.	
Table 2.2.2: Government contributions received	No BoP Reference cells in the template	N/A	Actual	SAP	No government contributions revenue was received during the reporting period as such amounts would have been recorded against an appropriate cost element in EGP's TB.	

6. INDIRECT REVENUE

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 2.3.1: Indirect revenue allocation	N/A	N/A	Actual	SAP	No Indirect revenue was allocated to EGP during the reporting period as such amounts would have been recorded against an appropriate cost element in EGP's TB.	

7. SHARED COSTS

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 2.4.1 Shared Cost Allocation	2.4.1.a	Description categories, Shared costs excluding related parties, Shared costs paid to related parties, (Gross shared costs), % allocated to pipeline, Total allocated to pipeline excluding related parties.	Actual	SAP	Shared Costs relate to enterprise support functions such as executive management, finance, legal, information technology (IT), human resources etc. <u>Description categories</u> The cost element description field from costs within EGP was used to map into the template's categories (e.g. 'wages', 'other direct costs', 'employee costs', 'indirect operating expenses', etc.). Project descriptions were also used as a basis to categorise costs into description categories (e.g. 'Information technology and communication costs'). Where project descriptions and activity/service category codes supported classification within a more specific category then the cost element based mapping was overridden[3]. The following description categories were populated based on project description/activity code mapping: • Information technology and communication costs	

[3] Labour cost element mapping was not overridden based on project descriptions and activity/service category code mapping.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					• Rental and leasing costs Related party and non-related party: • Shared costs excluding related parties Where projects costs are collected directly to the pipeline and not through a related party entity they were reported in the 'Shared costs excluding related parties' column. Shared asset depreciation is the only value included in this column as depreciation is based on shared assets purchased by the Jemena Group and allocated to EGP. • Shared costs paid to related parties, The gross shared costs paid to related parties e.g. Finance, Legal, Managing Director are the total shared costs incurred across The Jemena Group before allocating to specific assets (e.g. pipelines, distribution networks etc.). Gross shared costs are collected in SAP at the JAM entity. It is at this entity that the allocation of shared costs occur. These allocated costs are transferred to EGP using SAP functionality and mapped into the template categories based on a methodology consistent with the approach outlined above for net shared costs, therefore based on: • cost element mapping; and	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					• project descriptions and activity/service category codes <u>% allocated to pipeline and total allocated to pipeline excluding related parties,</u> As described above, the majority of costs that EGP incurs are sourced from a related entity JAM which records costs that are attributable to EGP and uses SAP functionality that transfers such costs at zero margin to EGP. These costs are reported in the 'Shared costs paid to related parties' column. Shared costs are allocated to the pipeline in the following ways: • Directly to the asset through a PM Order which is the lowest level cost collector. PM Order's settle or cascade up to a specific project (**WBS**) in SAP. • Based on allocation methodologies such as historic time-writing data. • Causal drivers e.g. number of laptops users for IT Telecommunication costs. The costs allocated to each shared cost category (e.g. 'Employee costs', 'information technology and communication costs' etc.) is an aggregate of one or more projects with varying cost allocation percentages from the different shared functions. The percentage allocated to a pipeline is calculated as:	The causal drivers that allocate shared costs to EGP are a reasonable method for such allocations

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					Amounts allocated to pipeline divided by the gross amount across the Jemena Group. The shared costs allocated to the pipeline is sourced from SAP using a combination of projects and cost elements.	

8. STATEMENT OF PIPELINE ASSETS

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 3.1: Pipeline assets	3.1.a	Initial construction cost, Initial purchase cost, Additions, Additions and improvements capitalised, Capitalised maintenance, Asset disposal (at cost), Less depreciation.	Actual	Table 3.3.1: Fixed assets at cost - pipeline assets Table 3.3.2: Shared assets at cost (less straight line depreciation)	All items were populated based on Australian Energy Regulator (**AER**) designed formulas which referenced the supporting 'Table 3.3.1: Fixed assets at cost - pipeline assets'.	
		Other non-depreciable pipeline assets.	Actual	SGSPAA Group Consolidation support schedule (Fair Value Adjustments and Goodwill)	The SGSPAA Group consolidates its resulting Purchase Price Adjustments from acquisitions at a Group entity level, meaning that it does not distribute and fair value adjustments to its subsidiary entities. These Group adjustments are maintained in an excel spreadsheet outside the Group's SAP system. Fair value adjustments (original cost and accumulated depreciation) that relates to EGP has been allocated to the categories in the template on the basis fixed asset information contained in a Fair Value schedule and input from a subject matter expert who assisted in the	EGP believes that the allocation is reasonable as it based on information contained Fair Value uplift schedule maintained by the Group. This schedule has sufficient EGP pipeline fixed asset categorisation that formed the basis of the allocation of the assets as categorised in the template.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					categorisation of these adjustments into the template categories	
Table 3.1: Pipeline assets	3.1.a.1	Other non-depreciable pipeline assets	Actual	SGSPAA Group Consolidation support schedule (Fair Value Adjustments and Goodwill)	The SGSPAA Group consolidates its resulting Goodwill from acquisitions at a SGSPAA Group entity level, meaning that it does not pass-on any Goodwill into its subsidiary entities. These SGSPAA Group adjustments are maintained in an excel spreadsheet outside the SGSPAA Group's SAP system and allocated to the SGSPAA Group's cash generating units (e.g. pipelines) for the purpose of impairment testing, in accordance with Australian Accounting Standards. The Guideline does not restrict consideration to only those assets identifiable at the direct pipeline owning entity level and accordingly EGP allocated Goodwill to the pipeline in its statement of assets. EGP considered this a reasonable allocation and disclosure.	As there is no specific Goodwill category, EGP has included Goodwill in the 'Other non-depreciable pipeline assets' in the template.
Table 3.1: Pipeline assets	3.1.b	Inventories, Deferred tax assets, Other assets	Actual	SAP	All items were balances extracted from EGP's Trial Balances for the reporting period. Other Assets include GL accounts such as accrued receivables and amounts due from related parties as sourced from the TB. SAP has functionality that records and identifies any transactions from related parties to EGP, known as trading partner. Related party loan accounts with each trading partner entity were aggregated, where the receivable amount was greater the payable amount the net amount was reported in 'Other assets'. Where the payable amount	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					was greater than the receivable amount the balance was a net liability and therefore not included in 'Other assets' in the template. EGP has a legally-enforceable right to set off the recognised amounts and EGP intends either to settle on a net basis or realise the asset and settle the liability simultaneously. EGP considers Inventories, Deferred tax assets and Other assets as direct assets but has included these assets under the shared supporting assets in the AER template category. In accordance with accounting standards EGP has netted off deferred tax and liabilities in its Balance Sheet.	

9. ASSET USEFUL LIFE

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 3.1.1: Asset useful life	3.1.1.a	Description (list each individual balance sheet item), Acquisition date, Useful life years, Reason for choosing this useful life	Actual	Table 3.3.1: Fixed assets at cost - pipeline assets Table 3.3.2: Shared assets at cost (less straight line depreciation)	<u>Description (list each individual balance sheet item)</u> The 'Description' column was referenced from the 'Description' column as listed in: • Table 3.3.1: Fixed assets at cost - pipeline assets • Table 3.3.2: Shared assets at cost (less straight line depreciation) Assets under construction (**AUC**) are assets that are still in the process of being constructed and not yet installed ready for use, therefore they are excluded from Table 3.1.1 EGP does not depreciate land but does for easements. In accordance with the Guideline the impact of easement depreciation has been removed (Non-scheme financial reporting guideline (**Guideline**) section 3.2.1). Therefore land and easements are excluded from Table 3.1.1 <u>Acquisition date</u> The assets in the FAMR sourced from SAP, have been aggregated into similar 'Description' items in Table 3.1.1. Because there were too many separate assets in the FAMR to report them separately in Table 3.1.1, therefore the acquisition date is reported as 'various acquisition dates'. <u>Useful life years</u>	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					A FAMR lists individual assets that contain the following information: • Asset description (text field) • Depreciation start date (date field) • Estimated useful life (years) • Original Cost ($) • Acquisition ($) (includes Transfers) • Disposals/retirements ($) • Accumulated depreciation ($) • Depreciation for the year ($) • Depreciation retirements ($) • Closing book value ($) The useful life for each category was calculated based on the calculated weighted average cost useful life formula below with the information sourced from FAMR. Weighted average cost useful life equals: $\sum \frac{(Opening\ Cost + Aquisitions + Retirements)}{Total\ 'Description'\ Cost} * Asset\ useful\ life$ Note that the Total Description Costs is the sum of Opening cost + Additions– Retirements. Reason for choosing this useful life The economic useful life of individual assets is defined in terms of the Australian Accounting Standards and the asset's expected use to EGP which may not fall within the Guideline's Appendix A – Pipeline asset lives. The estimation of the economic useful life of an asset is a matter of judgement based on the Jemena Group's experience with similar assets.	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					Additionally, economic useful life shall be considered in relation to the life assigned to similar assets within the asset category.	

10. ASSET IMPAIRMENT

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 3.2.1: Assets impaired	BoP reference field not included in table	Asset description, Impairment amount $ nominal, Impairment date, Basis for impairment	Actual	SAP	Management tested the EGP Cash Generating Unit, including allocated goodwill for impairment as part of its usual annual impairment testing for December 2019 financial reporting purposes in accordance with Australian Accounting Standard requirements, with no impairment recognised. In assessing the position as at December 2019, management considered both external and internal indicators of impairment such as; changes in the regulatory environment, current and future performance, asset characteristics, physical damage, business environment and market conditions. No impairment was noted as part of testing indefinite life intangible assets therefore no impairment has been recognised for the year ended 31 December 2019.	
Table 3.2.2: Asset impairment reversals	BoP reference field not included in table	Asset description, Prior Impairment amount, Impairment date, Basis for impairment, Reversal amount $nominal, Reversal date, Basis for Reversal	Actual	SAP	No assets impairment reversals were recorded during the reporting period.	

11. DEPRECIATION

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 3.3.1: Fixed assets at cost - pipeline assets & Table 3.3.2: Shared assets at cost (less straight line depreciation)	3.3.1.a 3.3.2.a	Description, Category, Acquisition date, Useful life, Estimated residual value, Construction or acquisition cost, Additions, Capitalised Maintenance Disposals, Cost Base, Prior years' accumulated depreciation Current year accumulated depreciation, Written Down Value	Actual	SAP FAMR and equipment listing report	The FAMR lists individual assets that was downloaded from SAP. <u>Category</u> Each asset was mapped into the relevant categories provided in the AER template drop down list (e.g. Pipeline, Compressor, City Gates etc.) based on: • analysis of the FAMR Asset description & Asset class; • input from engineers and subject matter experts; and • where relevant, analysis of a separate corresponding equipment listing report which contains more detailed information than the FAMR. EGP used subject matter experts to map its asset categories to that in the template as EGP's SAP system was designed prior to the establishment of the GMR reporting regime. <u>Description</u> The asset description was mapped to the categories in the template except for the following items which were not included in the AER's drop down list of categories: AUC Network, AUC-Intangibles, AUC Non-Network. AUC are assets that are still in the process of being constructed and not yet installed ready for use. Therefore depreciation expense was not yet applied.	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					Acquisition date Refer to 'Acquisition date' explanation for Table 3.1.1 Asset useful life. Useful life Refer to 'Useful life' explanation for Table 3.1.1 Asset useful life. Estimated residual value EGP has estimated there to be no residual value for all pipeline assets which is in accordance with its internal Property, Plant and Equipment policy and aligns with AASB 116 Property, Plant and Equipment which recognises that in practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount (AASB 116(53)). Construction or acquisition cost The 'Construction or acquisition cost' column value ($) was populated for each 'Description' item based on the FAMR data which was aggregated because there were too many separate assets in the FAMR to report them separately in Table 3.3.1. The 'Original cost' of assets in the FAMR were aggregated based on asset 'Description' where the 'Depreciation start date' value was prior to the SGSPAA acquisition of the pipeline in August 2007. Fair value uplift adjustments has been applied to the applicable categories in the template.	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					Prior year disposal removed from the 'Construction or acquisition cost' were added back to report a life to date 'Construction or acquisition cost' (refer to disposal explanation below for methodology explanation) prior to SGSPAA's acquisition of the pipeline during August 2007. Additions The 'Additions' column was populated for each description item based on the FAMR data which was aggregated because there were too many separate assets in the FAMR to report them separately in Table 3.3.1. The 'Original cost' and the 'Acquisition' value of assets in the FAMR were aggregated based on asset 'Description' where the 'Depreciation start date' value was after SGSPAA's acquisition of the pipeline during August 2007. Prior year disposals removed from the original cost were added back to report a life to date original cost after SGSPAA's acquisition of the pipeline during August 2007. Capitalised Maintenance EGP does not have any capitalised maintenance. Maintenance costs such as day to day servicing including labour, consumables and spare parts are excluded from measurement of an item of PPE in accordance with the SGSPAA Group's PPE policy and AASB 116 (12). Disposals	

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					A list summarising the historical cost of assets disposed of since pipeline construction was compiled based on disposals data from the following sources: • Statutory Accounts (1998-2005, 2009-2016); and • Internal FAMR (2006-2008, 2017-2019). The historic cost of disposals over the life of the pipeline was aggregated based on the 'Description' field and populated within the 'disposals' column. Prior years' accumulated depreciation The prior year GMR template's 'current year accumulated depreciation' is the source for 'Prior years' accumulated depreciation'. Current year accumulated depreciation The 'Accumulated depreciation' and the 'Current year depreciation' values in the FAMR were aggregated for each 'description' row and then populated in this column of the table. Accumulated fair value uplift depreciation has been applied to the applicable categories in the template. Written down value The 'Written down value' of all assets in table 3.3.1 was aggregated. A reconciling difference was noted relating to depreciation of the 'easements'. 'Land and easements are required to be recorded at historical cost and not depreciated' (Guideline Land and easements Section 3.2.1). However, EGP follows its	EGP believes that the disposals sourced from historical statutory accounts relate only to pipeline asset disposals, given the historical construction and subsequent pipeline sale to various owners, e.g. Duke Energy, Alinta Ltd., who had divisions that were pipeline asset owners.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					SGSPAA Group's accounting policy, which is to depreciate easements.	

12. SHARED SUPPORTING ASSETS

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 3.4.1: Shared supporting asset allocation	3.4.1.a	Description (list each individual shared asset category greater than 5%), Category of shared assets, Total amount, % allocated to pipeline, Total allocated to pipeline	Actual	SAP – FAMR & project cost download for Shared Assets Capex at EGP's level.	<u>Description (list each individual shared asset category greater than 5%)</u> Shared asset 'Asset class description' in the FAMR were reported in Table 3.4.1. <u>Category of shared assets</u> The 'Category of shared assets' was reported as 'Other Shared' based on the nature of the asset additions and referenced to the drop down list of categories in Table 3.3.2. <u>Total amount</u> Costs are collected in projects (WBS elements) in SAP based on the activity, on which an employee works or an external supplier provides goods/services. For shared assets the capex costs are collected in EGP's WBS element before allocating the shared asset costs to the relevant pipelines/distribution network assets. EGP aggregates the shared asset additions into the relevant asset classes as per the template. <u>% allocated to pipeline</u> The percentage allocated to the pipeline was calculated as: 'Total allocated to the pipeline' divided by the 'Total Amount' Where: • 'Total allocated to the pipeline' is defined below; and	For each shared 'Asset class description' the sum of 'historical cost of asset additions' during the reporting period > 5% * historical costs of Total Shared Cost Additions during the reporting period.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					• 'Total Amount' is defined above. <u>Total allocated to pipeline</u> Shared Asset additions during the reporting period were aggregated by the 'Asset class description' field in the FAMR.	

13. RECOVERED CAPITAL METHOD - PIPELINE ASSETS

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1998 - 2000	Construction Cost BoP Reference: 4.1.a	Actual	1998: Westcoast Energy, Annual Report 1998, pg. 20. 1999 – 2000:; Statutory accounts, Statement of Cash Flows: • Duke Energy NSW Gas Holdings (consolidated entity)	1998: The cost incurred during this period are calculated from Westcoast Energy's 1998 Annual Report. As noted in the report Westcoast Energy sold its 50 percent share of EGP for C$27 million (Canadian dollars), which resulted in C$8 million net income from the sale. Using this information, we calculated initial construction costs to be A$40 million (refer to calculation breakdown below). <u>Calculation breakdown</u> Construction costs = (Proceeds on Sale less Profit on Sale) * 2 1999 – 2000: Extracted the following item from the Statement of Cash Flows: Cash flows from investing activities; Cash paid for purchase of property, plant and equipment.	Construction took place over 3 years. All construction costs are captured in the Westcoast Energy annual report. All construction costs are incurred mid-year.

[4] For all Estimates, refer to the following table explaining why estimates were required, steps taken to locate actual information, the basis for the estimate and why the estimate represents the best estimate possible and has been arrived at on a reasonable basis.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Mid-point Net Capital Expenditure Gross Up Capex additions and disposals for each year are escalated to a mid-year point to account for the return on capital for capital expenditure incurred during the year. $$Mid\ Point\ Gross\ Capex = Capex \times (1 + Rate\ of\ Return\ percentage)^{0.5}$$ The Rate of Return percentage input calculation methodology is further explained below (refer to 'Rate of Return' item).	
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1998 – 2019	Negative residual value BoP Reference: 4.1.b	Estimate	Expert Engineering Report date 2011 Inflation rate: SGSPAA internal 2019 budgeted CPI Discount rate: 5 year average rate for 15 year Australian Government	Negative residual value is calculated as: $$PV(Decommissioning)_t = C_{T_E} \times \frac{(1+i)^{T_D - T_E}}{(1+r)^{T_D - t}}$$ Where: • C_{T_E} is the estimated cost of decommissioning in dollars as at time T_E • T_D is the expected year of decommissioning • i is the estimated inflation rate • r is the estimated discount rate • t is the year of the estimate An expert Engineering report is the basis for estimating the decommissioning cost (C_{T_E}).	Negative residual value is interpreted as the current value of the forecast decommissioning cost that EGP will pay when the pipeline is removed from service in the future. The expert engineering report is a reasonable basis for estimating the

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					Securities (AGS) bonds	Phasing of Negative Residual value The year 1 value of the decommissioning cost was reported in year 1. The cost of debt incremental was then reported for each subsequent year.	cost to decommission the pipeline. The 5 year average of the 15 year AGS bonds are appropriate to estimate rate of return for present value calculation purposes.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1999 – 2002	Additions BoP Reference: 4.1.c	Estimate – due to Taxable supply and GST free split	Statutory accounts, Statement of Cash Flows: • Duke Energy NSW Gas Holdings (consolidated entity)	Extracted the following item from the Statement of Cash Flows: Cash flows from investing activities; Cash paid for purchase of property, plant and equipment. Note: The GMR fixed asset reporting data was used to split out shared asset additions from other Capex Additions. Refer to the GMR fixed asset BoP for further details. Capex Additions net of GST was calculated as: $\frac{\text{Capital expenditure}_t \times 0.96}{1 + \text{GST}_t}$ $+\text{Capital expenditure}_t \times (1 - 0.96)$ *Where* GST_t is the GST rate (i.e. 10%). Mid-point Net Capital Expenditure Gross Up	After 1 July 2000, assumed cash flows from investing activities and cash paid for purchase of property, plant and equipment included 10% GST on taxable supplies. Assume an even pattern of capex spending in 2000. The taxable supply and GST free Capex split was estimated as 96.1% and 3.9% respectively. This split was calculated based

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Refer to Construction Cost - Mid-point Net Capital Expenditure Gross Up explanation. The EGP was owned by Duke Energy Australia ('Duke') from 1998 to 2004, and it filed financial reports with ASIC for the calendar years up to 2003. Over this period, DEI Eastern Gas Pipeline Pty Ltd and Duke Eastern Gas Pipeline Pty Ltd each had a 50 percent interest in the EGP, and the principal activities of these two businesses comprised of the operation of the Duke Energy Eastern Gas Pipeline. The parent company of these entities, 'Duke Energy NSW Gas Holdings', also controlled two additional businesses, however, their cash flows appear to be negligible; the consolidated cash flows of Duke Energy NSW Gas Holdings, were equal to the sum of the cash flows of DEI Eastern Gas Pipeline and Duke Eastern Gas Pipeline. For the years 1999 to 2002, we use the consolidated cash flows reported in financial reports for Duke Energy NSW Gas Holdings.	on SGSPAA EGP Major Capex projects from 2013–2016, and so we assume that this split would apply to additions over the pre-Jemena Group 1999–2002 period. All additions are incurred mid-year.
Table 4.1: Recovered capital method	Pipeline Assets	2003	Additions BoP Reference: 4.1.c	Estimate – due to Taxable	Statutory accounts, Statement of Cash Flows	Extracted the following item from the Statement of Cash Flows: • Cash flows from investing activities; Cash paid for	After 1 July 2000, assumed cash flows from investing activities

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
- pipeline assets				supply and GST free split	• DEI Eastern Gas Pipeline • Duke Eastern Gas Pipeline	purchase of property, plant and equipment. Capex Additions net of GST was calculated as: $\frac{\text{Capital expenditure}_t \times 0.96}{1 + \text{GST}_t} + \text{Capital expenditure}_t \times (1 - 0.96)$ where GST_t is the GST rate (i.e. 10%). Mid-point Net Capital Expenditure Gross Up Refer to Construction Cost - Mid-point Net Capital Expenditure Gross Up explanation. For the year 2003 consolidated financials were not reported for Duke Energy NSW Gas Holdings, so we rely on the financial reports for DEI Eastern Gas Pipeline and Duke Eastern Gas Pipeline.	and cash paid for purchase of property, plant and equipment included 10% GST on taxable supplies. The taxable supply and GST free Capex split was estimated as 96.1% and 3.9% respectively. This split was calculated based on Jemena Group EGP Major Capex projects from 2013–2016, and so we assume that this split would apply to pre-Jemena Group additions in 2003.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	2004 – 2006	Additions BoP Reference: 4.1.c	Estimate – due to Taxable supply and GST free split	Statutory accounts, Statement of Cash Flows • Alinta DEEGP Pty Ltd • Alinta DEGP Pty Ltd	Extracted the following item from the Statement of Cash Flows: • Cash flows from investing activities; Cash paid for purchase of property, plant and equipment. Capex Additions net of GST was calculated as: $\frac{\text{Capital expenditure}_t \times 0.96}{1 + \text{GST}_t} + \text{Capital expenditure}_t \times (1 - 0.96)$	After 1 July 2000, assumed cash flows from investing activities and cash paid for purchase of property, plant and equipment included 10% GST on taxable supplies. The taxable supply and GST free Capex split

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Where GST_t is the GST rate (i.e. 10%.) For the year 2003 consolidated financials were not reported for Alinta so we rely on the financial reports for Alinta DEEGP Pty Ltd and Alinta DEGP Pty Ltd similar to Duke above. Mid-point Net Capital Expenditure Gross Up Refer to Construction Cost - Mid-point Net Capital Expenditure Gross Up explanation.	was estimated as 96.1% and 3.9% respectively. This split was calculated based on SGSPAA EGP Major Capex projects from 2013–2016, and so we assume that this split would apply to additions over the pre-Jemena Group 2004–2006 period. All additions are incurred mid-year.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	2007 – 2019	Additions BoP Reference: 4.1.c	Actual	SAP Trial Balances and FAMR • Jemena Eastern Gas Pipeline (1) Pty Ltd and • Jemena Eastern Gas Pipeline (2) Pty Ltd	EGP uses SAP to capture costs associated with capital expenditure. A FAMR was downloaded from SAP for each year to identify additions during that year. A check was performed to reconcile FAMR movements with the net change in fixed asset general ledger accounts. Mid-point Net Capital Expenditure Gross Up Refer to Construction Cost - Mid-point Net Capital Expenditure Gross Up explanation.	Additions per the FAMR were cash related. All additions are incurred mid-year.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1998 - 2006	Capitalised Maintenance BoP Reference: 4.1.d	Estimate	Pipeline Assets – Capitalised Maintenance (1998 – 2006)	Data for capitalised maintenance was not available prior to SGSPAA's ownership of the pipeline. Estimate pre-acquisition maintenance capitalised based on post-acquistion actual mainteance capitalised data, therefore estimated no capitalised mainteance.	Post-acquistion actual mainteance capitalised data is an appropriate basis for estimting pre-acquisition maintenance. No transactions recorded pre-acquisition for Maintenance capitalised.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	2007 -2019	Capitalised Maintenance BoP Reference: 4.1.d	Actual	SAP Trial Balances and FAMR • Jemena Eastern Gas Pipeline (1) Pty Ltd and • Jemena Eastern Gas Pipeline (2) Pty Ltd	No data for capitalised maintenance was noted in the review of the FAMR and the relevant SAP Trial Balances. : • Construction cost or acquisition cost (where allowed) apportioned, • Maintenance capitalised • Disposal (at cost)	
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1999 – 2019	Disposals (at cost) BoP Reference: 4.1.e	Actual	1999 – 2002: Statutory accounts, Statement of Cash Flows: • Duke Energy NSW Gas Holdings (consolidated entity)	Extracted the following item from the Statement of Cash Flows: • Proceeds from sales of property, plant and equipment. After 1 July 2000, where there was an amount for Proceeds on sales of property, plant and equipment, GST has been removed by multiplying the proceeds by 10/11.	All disposals are incurred mid-year. After 1 July 2000, assumed proceeds from sales included 10% GST on taxable supply applied to the sales amount.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					2003: Statutory accounts, Statement of Cash Flows: • DEI Eastern Gas Pipeline • Duke Eastern Gas Pipeline 2004- 2006: Statutory accounts, Statement of Cash Flows: • Alinta DEEGP • Alinta DEGP 2007: Statutory accounts (15 months ending 31 March 2008) Statement of Cash Flows: • Alinta DEGP Pty Ltd • Alinta DEEGP Pty Ltd	Disposals net of GST was calculated by multiplying the cash flow receipt by: • 10/11 * 50% for 2000 (Note: GST was introduced 1 July 2000 => 50% in 2000); and • 10/11 for subsequent calendar years. Mid-point Net Capital Expenditure Gross Up Refer to Construction Cost - Mid-point Net Capital Expenditure Gross Up explanation.	Disposal (as cost) has been interpreted to mean cash proceeds from the sales of property, plant and equipment which is the equivalent to the cost paid by the 3rd party which acquired the asset.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					2008 - 2018: Statutory accounts Statement of Cash Flows (1 April 2008 – 31 December 2018): • Jemena Eastern Gas Pipelines (1) Pty Ltd • Jemena Eastern Gas Pipelines (2) Pty Ltd 2019: SAP Trial Balances and FAMR Due to changes in supporting legal agreements from 2019 statutory accounts were no longer required to be prepared for: • Jemena Eastern Gas Pipelines (1) Pty Ltd • Jemena Eastern Gas Pipelines (2) Pty Ltd		

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
Table 4.1: Recovered capital method - pipeline assets	Shared Assets	1998 -2019	Additions BoP Reference: 4.1.f	Actual	SAP Trial Balances and FAMR • Jemena Eastern Gas Pipeline (1) Pty Ltd and • Jemena Eastern Gas Pipeline (2) Pty Ltd	Asset were aggregated by year based on the year within the Capitalisation date (date field). Shared assets were identified based on: • analysis of the FAMR Asset description & Asset class; • input from engineers and subject matter experts; and • where relevant, analysis of a separate corresponding equipment listing report which contains more detailed information than the FAMR. Shared asset additions were aggregated by year based on the year within the field Capitalisation date.	
Table 4.1: Recovered capital method - pipeline assets	Shared Assets	1998 - 2006	Construction cost or acquisition cost (where allowed) apportioned, Maintenance capitalised , Disposal (at cost) BoP Reference: 4.1.g	Estimate	N/A	Data for the following items was not available prior to the SGSPAA ownership of the pipeline: • Construction cost or acquisition cost (where allowed) apportioned, • Maintenance capitalised • Disposal (at cost)	Post-acquistion actual mainteance capitalised data is an appropriate basis for estimting pre-acquisition maintenance No transactions recorded pre-acquisition for:

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							• Construction cost or acquisition cost (where allowed) apportioned, • Maintenance capitalised • Disposal (at cost)
Table 4.1: Recovered capital method - pipeline assets	Shared Assets	2007 -2019	Construction cost or acquisition cost (where allowed) apportioned, Maintenance capitalised , Disposal (at cost) BoP Reference: 4.1.g	Actual	SAP Trial Balances and FAMR • Jemena Eastern Gas Pipeline (1) Pty Ltd and • Jemena Eastern Gas Pipeline (2) Pty Ltd	No data for the following items were noted in the review of the SAP FAMR and the relevant SAP Trial Balances: • Construction cost or acquisition cost (where allowed) apportioned, • Maintenance capitalised • Disposal (at cost)	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1999 – 2002	Revenue BoP Reference: 4.1.h	Actual	Statutory accounts, Statement of Cash Flows: Duke Energy NSW Gas Holdings (consolidated entity)	Extracted the following item from the Statement of Cash Flows: • Cash flows from operating activities; Receipts from customers. Revenue net of GST was calculated by multiplying the cash flow receipt by: • 10/11 * 50% for 2000 (Note: GST was introduced 1 July 2000 => 50% in 2000); and • 10/11 for subsequent calendar years.	After 1 July 2000, assumed cash flows from operating activities and receipts from customers included 10% GST on taxable supply applied to the revenue amount.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							The only revenue of the entity was pipeline revenue.
Table 4.1: Recovered capital method - pipeline assets	Return of capital	2003	Revenue BoP Reference: 4.1.h	Actual	Statutory accounts Statement of Cash Flows: • DEI Eastern Gas Pipeline Statutory accounts, • Duke Eastern Gas Pipeline Statutory accounts	Extracted the following item from the Statement of Cash Flows: • Cash flows from operating activities; Receipts from customers. Revenue net of GST was calculated by multiplying the cash flow receipt by 10/11.	After 1 July 2000, assumed cash flows from operating activities and receipts from customers included 10% GST on taxable supply applied to the revenue amount. The only revenue of the entity was pipeline revenue.
Table 4.1: Recovered capital method - pipeline assets	Return of capital	2004 – 2006	Revenue BoP Reference: 4.1.h	Actual	Statutory accounts Statement of Cash Flows: • Alinta DEEGP • Alinta DEGP	Extracted the following item from the Statement of Cash Flows: • Cash flows from operating activities; Receipts from customers (inclusive of goods and services tax). Revenue net of GST was calculated by multiply the cash flow receipt by 10/11.	After 1 July 2000, assumed cash flows from operating activities and receipts from customers included 10% GST on taxable supply applied to the revenue amount. The only revenue of the entity was pipeline revenue.
Table 4.1: Recovered capital method	Return of capital	2007 – 2019	Revenue BoP Reference: 4.1.h	Actual	SAP Trial Balances of: • Jemena Eastern Gas Pipelines (1) Pty Ltd. and	EGP uses its SAP system to capture revenue transactions. A calendar year trial balance was generated from the SAP system and the revenue general ledger accounts were aggregated.	No material non-cash items are included in the revenue general ledger accounts.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
- pipeline assets					• Jemena Eastern Gas Pipelines (2) Pty Ltd	SAP trial balances were relied upon because EGP statutory accounts did not report on a calendar year end for the following period: • 15 months ending 31 March 2008; • Year ending 31 March 2009 – Year ending 31 March 2014. A reconciliation check was performed to confirm that the Life-to-date (LTD) trial balances and the statutory accounts agreed.	Revenue per the general ledger is recorded excluding GST. GST is separately recorded in a balance sheet account. The only revenue of the entity was pipeline revenue.
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1999	Operating expenses BoP Reference: 4.1.i	Actual (1999)	Statutory accounts, Statement of Cash Flows: • Duke Energy NSW Gas Holdings (consolidated entity)	Extracted the following item from the Statement of Cash Flows: • Cash flows from operating activities; Payments to suppliers and employees.	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	2000-2006	Operating expenses BoP Reference: 4.1.i	Estimate due to shared costs allocation	2000 - 2001: Statutory accounts, Statement of Cash Flows: • Duke Energy Australia Pty Ltd	Shared Costs = Shared costs source entity Cash Flow from Operating Activity multiplied by EGP entities percentage share of total revenue. Refer to Table 2 (page 56) below for further explanation of EGP entities percentage share of total revenue.	Revenue is an appropriate basis to allocate holding company shared costs to EGP because it is reasonable to assume that there is a relationship between a

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					2002: Statutory accounts, Statement of Cash Flows: • Duke Energy NSW Gas Holdings (consolidated entity) 2003: Statutory accounts, Statement of Cash Flows: • Duke Australia Operations Pty Ltd • Duke Australia Finance Pty Ltd • Duke Energy Australia Pty Ltd • Duke Energy Australia Trading and Marketing Pty Ltd 2004 - 2005: Statutory accounts, Statement of Cash Flows: • Alinta EA Pty Ltd • Alinta Energy Holdings Pty Ltd	Note: The GST taxable supply and GST free split estimation methodology described above is also applied to shared costs.	company's revenues and the services that it requires.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					2006: Statutory accounts, Statement of Cash Flows: • Alinta EA Pty Ltd • Alinta Energy Holdings Pty Ltd Alinta Infrastructure Holdings		
Table 4.1: Recovered capital method - pipeline assets	Return of capital	2007 – 2019	Operating expenses BoP Reference: 4.1.i	2007 – 2018: Estimate due to VicHub cost allocation 2019: Actual	SAP Trial Balances	Extracted and summed the dollar amounts of operating expenditure general ledger accounts from each calendar year's trial balance excluding: • Interest • Depreciation, and • Tax Expense. Maintenance operating expenses were undertaken on behalf of VicHub by the EGP over the period from 2010 to 2018, inclusive. The 2018 maintenance operating expenditure was estimated based on a 2018 engineering estimate which was then adjusted for inflation. The 2019 maintenance operating expenditure is actual. EGP statutory accounts had a March period end of 31 March from 31 March 2008 to 31 March 2014.	No material non-cash items are included in the operating expenditure general ledger accounts reported. Depreciation is the key non-cash item which has been removed. There are no other shared costs sitting within SGSPAA that need to be allocated to EGP.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Therefore statutory accounts were not used as the source data input into the RCM table.	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1999 – 2019	Net tax liabilities BoP Reference: 4.1.j	Estimate	SAP Trial Balances of : • Jemena Eastern Gas Pipeline (1) Pty Ltd, and • Jemena Eastern Gas Pipeline (2) Pty Ltd Statutory accounts used in the Revenue and Operating Expenditure items above.	The pipeline is part of a consolidated tax group and does not pay corporate tax as a stand-alone entity. Therefore the net tax liability needs to be estimated. The accounting profit and loss has been reviewed to identify material non-cash items that may require adjustment for when estimating the net tax liability cash flow. After 2008 interest costs were not allocated down to the EGP asset level. A notional interest allocation has been included in the net tax liabilities calculation based on analysis of SGSPAA statutory account segment note disclosure. Interest expense was allocated to total pipelines in the segment note for 2008 to 2011, instead of the specific pipelines EGP, QGP and Vic Hub. The aggregate 2012 and 2013 percentage split of interest expense between EGP, Vic Hub and QGP was used to allocate total pipeline interest between pipelines for the period 2008 – 2011.	'Net tax liability' is interpreted as the notional cash tax payable that would be payable if the pipeline was a stand-alone entity. When estimating each year's tax depreciation, current year net capex was assumed to be incurred mid-year and therefore only a half year of depreciation was incurred.

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Net tax liability is calculated as: (Profit/(loss) before interest, tax, depreciation and amortisation Less Estimated tax depreciation Less Estimated interest expense) multiplied by the tax rate (i.e. 30%). Where: Profit/(loss) before interest, tax, depreciation and amortisation equals Revenue less Operating expense explained above. • Tax Depreciation (2007-2019) sourced from the SAP Fixed Asset Tax Register. • Tax Depreciation (1998 – 2006) was calculated as: LTD Net Capex divided by the estimated tax useful life years. Tax useful life was estimated based on a useful life that align with tax depreciation amounts for the each year from 2007-2019 sourced from the SAP Fixed Asset Tax Register. Interest Expense (2008-2019) was sourced from the tax note calculated as:	

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						SGSPAA interest expense divided by Pipeline total assets divided by SGSPAA Total Assets. Interest Expense (1998-2006) was sourced from the tax note calculated as: Opening assets multiplied by gearing ratio multiplied by cost of debt. Interest Expense in 2007 was allocated down to the Pipeline level and therefore a notional allocation was not required	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1998 – 2019	Return on capital BoP Reference: 4.1.k	Estimate	Rate of return sources are explained on the next page.	Return on capital for a given year is estimated as the opening asset value for that year multiplied by the rate of return percentage for that year. Both the opening asset value and the rate of return are explained below.	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1998 – 2019	Return on capital (Opening asset value) BoP Reference: 4.1.k	Estimate – Due to the impact of Rate of return components.	Prior period within the RCM Calculation	Aggregation of Prior period Life-to-date (LTD) RCM Inputs. Opening Asset Value = Prior year Closing Asset Value = Prior year Opening Asset + Prior year net Capex (adjusted to end of year timing) – Prior year Return of capital.	

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
						Where Return of capital is, Revenue – Operating expenditure – Net tax liabilities - Return on Capital	
Table 4.1: Recovered capital method - pipeline assets	Return of capital	1998 – 2019	Return on Capital (Rate of return) BoP Reference: 4.1.k	Estimate	The rate of return is estimated with reference to the following source inputs. *Gearing assumption input source*: • Asset betas adopted by Australian Competition and Consumer Commission (ACCC) and AER since 1998. • Asset betas identified by TDB and Frontier Cost of debt and risk free rate input source: Reserve Bank of Australia, Indicative Mid	<u>Weighted Average Cost of Capital (**WACC**)</u> EGP estimates the rate of return as the nominal vanilla WACC. This approach estimates the rate of return as the weighted average of opportunity costs assessed across two sources of capital funding: debt and equity. $WACC^{vanilla} = gearing \times r_d + (1 - gearing) \times r_e$ Where r_d is the cost of debt, and r_e is the cost of equity. <u>Gearing</u> The proportion of debt funding 'gearing' has been sourced based on guidance from previous, current, forecast financial information used in statutory, management and budgeting reporting. The asset beta that we use is calculated as: • the regulatory asset betas adopted by the ACCC and AER since 1998, which has been paired with a gearing assumption of 60 percent; plus • the asset beta for samples of businesses with unregulated revenues identified by TDB and Frontier described above), at gearings of 39 percent and 28 percent respectively; less	<u>Gearing assumption</u> The proportion of debt funding to capital is referred to as 'gearing'. EGP applies an assumption of 50% gearing, constant over time. The gearing assumption reflects reliance on the regulatory risk assumption but takes into account evidence that the gearing adopted by unregulated businesses is lower than that of regulated businesses. <u>Imputation credits assumption</u> EGP assumes the value of imputation credits

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					Rates of Australian Government Securities – 1992 to 2008 – F16, and Indicative Mid Rates of Australian Government Securities – 2009 to 2015 Equity beta input source: ACCC – final decision PTS (Oct 1998); ACCC – final decision PTS (Nov 2002); AER – electricity and distribution WACC parameters (May 2009); AER – rate of return guideline (Dec 2013); AER – rate of return instrument (Dec 2018)	• the asset beta for samples of businesses with regulated revenues identified by TDB and Frontier (described above), at gearings of 40 percent and 43 percent respectively. EGP considers that a gearing that is consistent with the formulation of asset beta is 50 percent. <u>Cost of debt</u> The cost of debt in each year is estimated as a prevailing cost of debt across the RCM capital base using the yield on corporate bonds with a broad BBB rating, and terms ranging from one to 10 years. A 10 year yield on Australian Government Securities (**AGS**) was calculated on each day using linear interpolation between the yield of the bond with the highest term that is less than 10 years and the yield of the bond with the lowest term that is more than 10 years. Each interpolated 10 year yield was then converted from the semi-annual basis that the RBA reports them on to an annualised basis to reflect their application consistent with the calculation of the asset valuation;[5] and	('gamma') is equal to zero reflecting SGSPAA shareholders' tax status in Australia. This assumption is also applied to previous shareholders. <u>Cost of debt and tenor assumptions</u> The cost of debt is calculated under the assumptions that: • EGP aims to achieve a debt portfolio that is 'staggered' so that debt falls due in relatively equal amounts on a year to year basis, limiting refinancing risk; and • EGP aims to achieve a debt portfolio with an average term to maturity from issuance of 10 years.

[5] We convert semi-annual yields to annualised yield using the following formula: $y_{annual} = \left(1 + \frac{y_{semi-annua}}{2}\right)^2 - 1$

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
					*Market Risk Premium (**MRP**) input source:* Credit Suisse Global Investment Returns Yearbook, prepared by Dimson, Marsh and Staunton (2017 edition)	An average 10 year yield was calculated for each period as the average of the 12 month-end values in that period. Cost of equity. The cost of equity for each year since the construction of the EGP is estimated using the Sharpe-Lintner capital asset pricing model (S-L CAPM). $$r_e = r_f + \beta_e(r_m - r_f)$$ where: r_e is the cost of equity; r_f is the risk free rate; $r_m - r_f$ is the Market Risk Premium (**MRP**); and β_e is the equity beta.	Cost of equity assumptions • EGP estimates the cost of equity based on an acceptable return that is commensurate with the expected risk SGSPAA shareholders expect from this asset. • This value is calculated under the assumption that, for the duration of each gas transportation contract for capacity agreed on the EGP, the cost of equity applying to the capital expenditure associated with that capacity is held constant at the rate applying at the time the contract was entered into until the expiry of the contract. Assumptions applied:

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							• a risk free rate estimated by reference to the yield on 10 year Australian government securities (AGS); • a constant MRP of 6.6 percent over the life of the pipeline; and • an equity beta ranging from 0.70 to 1.10 over the period (expressed at a gearing of 50 percent – reflecting regulatory precedent as applied by the ACCC and the AER for gas transmission equity betas, plus a positive adjustment to account for the additional risks associated with operating an unregulated gas transmission business such as EGP and increased technology risks associated with government's climate change and emission policies). Notes:

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							• Equity raising costs (i.e. the upfront expenses business may incur when issuing new capital) are assumed to be equal to zero, which is a conservative assumption. MRP

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							• The Credit Suisse Global Investment Returns Yearbook, prepared by Dimson, Marsh and Staunton, is a well-accepted source of estimates for average excess returns. The 2017 edition of the yearbook estimates the arithmetic average premium of Australian equities over Australian government bonds to be 6.6 percent over the period from 1990 to 2016.[6] Importantly, this estimate includes only the returns from dividends and capital gains, and is not grossed up for the value of imputation credits. This estimate is therefore consistent with a value for gamma of zero.

[6] Dimson, E., Marsh, P. and Staunton, M., *Credit Suisse Global Investment Returns Yearbook 2017*, February 2017, Table 13, p 72

Table Name	Base Information			Population Approach	Source	Methodology	Assumptions
	Asset Description	Year	Item & Basis of Preparation (BoP) Reference	Actual / Estimate[4]			
							MRP of 6.6 percent represents our best estimate of a historical average of excess market returns, consistent with valuing imputation credits at zero.

Table 2: Explanation of EGP percentage share of total revenue (input into the Shared Costs calculation).

Year	Item	Actual / Estimate	Source	Methodology	Assumptions
2000	Share of total revenue	Actual	EGP entities share of total revenue: • Duke Energy NSW Gas Holdings Pty Ltd Consolidated entity Total revenue for entities sharing Costs: • DEI Victoria Power Pty Ltd Consolidated entity • Duke Energy Australian Holdings Pty Ltd Consolidated entity • Duke Energy NSW Gas Holdings Pty Ltd Consolidated entity • Duke Energy WA Holdings Pty Ltd Consolidated entity	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows, this is consistent with the interpretation of revenue for the Revenue item in Table 4.1. EGP entities share of total revenue is calculated as *Revenue related to EGP divided by Total revenue for entities sharing Costs.*	
2001 - 2002	Share of total revenue	Actual	EGP entities share of total revenue: • Duke Energy NSW Gas Holdings Pty Ltd Consolidated entity Total revenue for entities sharing Costs: • DEI Victoria Power Pty Ltd Consolidated entity • Duke Energy Australian Holdings Pty Ltd Consolidated entity • Duke Energy NSW Gas Holdings Pty Ltd Consolidated entity • Duke Energy WA Holdings Pty Ltd Consolidated entity • DEI Tasmania Holdings Pty Ltd Consolidated entity • Duke Australia Pipeline Holdings Pty Ltd Consolidated entity	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows. EGP entities share of total revenue is calculated as Revenue related to EGP divided by Total revenue for entities sharing Costs.	

Year	Item	Actual / Estimate	Source	Methodology	Assumptions
2003	Share of total revenue	Actual	EGP entities share of total revenue: • Duke Eastern Gas Pipeline Pty Ltd • DEI Eastern Gas Pipeline Pty Ltd Total revenue for entities sharing Costs: • Duke Energy Limited Pty Ltd	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows. EGP entities share of total revenue is calculated as *Revenue related to EGP divided by Total revenue for entities sharing Costs.*	
2004	Share of total revenue	Actual	EGP entities share of total revenue: • Alinta DEEGP Pty Ltd • Alinta DEGP Pty Ltd Total revenue for entities sharing Costs: • Alinta Energy Holdings Pty Ltd	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows. EGP entities share of total revenue is calculated as *Revenue related to EGP divided by Total revenue for entities sharing Costs.*	
2005	Share of total revenue	Actual	EGP entities share of total revenue: • Alinta DEEGP Pty Ltd • Alinta DEGP Pty Ltd Total revenue for entities sharing Costs: • Alinta Infrastructure Holdings Pty Ltd	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows. EGP entities share of total revenue is calculated as	

Year	Item	Actual / Estimate	Source	Methodology	Assumptions
				Revenue related to EGP divided by Total revenue for entities sharing Costs.	
2006	Share of total revenue	Actual	EGP entities share of total revenue: • Alinta DEEGP Pty Ltd • Alinta DEGP Pty Ltd Total revenue for entities sharing Costs: • Alinta Infrastructure Holdings Pty Ltd	Revenue is interpreted as receipts from customers, attributable to external parties extracted from the Statement of Cash Flows. EGP entities share of total revenue is calculated as *Revenue related to EGP divided by Total revenue for entities sharing Costs.*	

Explanation for Estimated Amounts

For estimated amounts, in accordance with the Guideline Section 7 basis of preparation, the following table explains:

- why it was not possible for the **service provider** to provide actual information;
- what steps the **service provider** took to locate actual information;
- if an estimate has been provided, the basis for the estimate, including the methods, assumptions and inputs used
- why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.

ESTIMATED INFORMATION

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1998 – 2019	Negative residual value	Estimate	Cost have not yet been incurred to decommission the pipeline, therefore an estimate is inherently required to measure future costs. Further the actual timing of decommissioning the pipeline is also uncertain (estimated to be 2070) therefore increasing the level of estimation required. Further, the CPI escalation factor and the discount rate inputs are estimates used to inflate for forecast future price increases and then discount to the present value respectively.	No steps taken as actual information does not exist.	Negative residual value is calculated as: $PV(Decommissioning)_t = C_{T_E} \times \frac{(1+i)^{T_D - T_E}}{(1+r)^{T_D - t}}$ Where: • C_{T_E} is the estimated cost of decommissioning in dollars as at time T_E • T_D is the expected year of decommissioning (e.g. 2070 in the case of the EGP) • i is the estimated inflation rate • r is the estimated discount rate • t is the year of the estimate	The estimate is a best estimate because it has been calculated based on the following inputs which are sourced based on best available information: • Independent technical engineering estimate of the cost to decommission the pipeline. • Discount rate: 5 year average for the 15 year Australian Government Securities (AGS) bond rate. • CPI escalation: SGSPAA internal CPI estimate (reasonable when compared with Australian Bureau of Statistics (ABS) rate).

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
							An expert Engineering report obtained in 2011 is the basis for estimating the decommissioning cost (C_{T_E}). Phasing of Negative Residual value The year 1 value of the decommission cost was reported in year 1. The cost of debt incremental was then reported for each subsequent year.	The year of decommissioning is estimated to be 2070 which is consistent with business plans and no contradictory information was noted.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	Jul 2000-Dec 2006	Additions	Estimate GST taxable supply and GST free split	After 1 July 2000 10% GST was charged on taxable supplies. This GST component of spending would have been refunded by the ATO and therefore does not represent a cash flow on the pipeline. An estimate was required to calculate the split between GST taxable supply and GST free	SGSPAA reviewed internal records and records of historical ownership changes to determine what information was available. Previous owners were contacted but a response was not received.	The taxable supply and GST free Capex split was estimated as 96.1% and 3.9% respectively. This split was calculated based on Major Capex projects from 2013–2016, and so we assume that this split would apply to additions over the 1999–2002 period. All additions are incurred mid-year.	External contractors are generally engaged to perform the work required for Capex additions. No change is noted in the spending split between taxable supply and GST free spending over the life of the pipeline. Therefore the 2013-2016 major projects taxable supply and GST free split

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
					spending included in the Cash flows from investing activities input extracted from cash flow statements. The statutory accounts do not disclose the split between the split between GST taxable supply and GST free spending. SGSPAA does not have access to actual records because the records were held by a previous owner. Current tax and accounting laws only require records to be retained for 7 years.			represents the best available information. The split has been calculated based on actual major project capex additions historic records for the 2013-2016 period and therefore has been arrived at on a reasonable basis.

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	Jan 2000-Dec 2006	Opex	Estimate GST taxable supply and GST free split	<u>GST taxable supply and GST free split</u> After 1 July 2000 10% GST was charged on taxable supplies. This GST component of spending would have been refunded by the ATO and therefore does not represent a cash flow on the pipeline. An estimate was required to calculate the split between GST taxable supply and GST free spending included in the Cash flows from investing activities input extracted from cash flow statements. The statutory accounts do not disclose the split between the split between GST taxable	SGSPAA reviewed internal records, published records, and records of historical ownership changes to determine what information was available. Previous owners were contacted but a response was not received.	<u>GST taxable supply and GST free split</u> The taxable supply and GST free Opex split was estimated as 48.04% and 51.96% respectively. This split was calculated based on the average split over the 2015–2017, and so we assume that this split applies equally to the 1999–2002 period. A calculated estimate of the taxable supply and GST free Opex split was applied because historical actual data is not available. Operating expense were incurred evenly through the year.	<u>GST taxable supply and GST free split</u> No change is noted in the spending split between taxable supply and GST free spending over the life of the pipeline. Therefore the 2015-2017 taxable supply and GST free split represents the best available information and to calculate the split. The split has been calculated based on actual historic records for the 2015-2017 period and therefore has been arrived at on a reasonable basis.

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
					supply and GST free spending. SGSPAA does not have access to actual records because the records were held by a previous owner. Current tax and accounting laws only require records to be retained for 7 years.			
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	Jan 2000-Dec 2006	Opex	Estimate Shared Costs	Shared costs were not allocated to EGP and therefore these costs have been estimated. Shared costs relating to supporting corporate activities would be expected to exist and therefore should be allocated to the EGP.	Previous owners were contacted but a response was not received.	Shared Costs = Shared costs source entity Cash Flow from Operating Activity multiplied by EGP entities percentage share of total revenue. Revenue is an appropriate basis to allocate holding company shared costs to EGP.	Audited statutory accounts are a reliable data source and have been used as the source data inputs into the shared costs calculation. Revenue is the best available cost driver due to alternative cost information not being available.

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
								On the basis of these inputs the shared cost estimate represent our best estimate and has been arrived at on a reasonable basis.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	2010 - 2018	Operating expenses	Estimate relating to VicHub costs recorded within EGP	Maintenance operating expenses were undertaken on behalf of VicHub by the EGP over the period from 2010 to 2018, inclusive. Records were not retained to enable the VicHub component to be measured.	Records do not exist to enable the VicHub component to be measured, therefore no further steps were taken to locate actual information.	The maintenance operating expenditure was estimated based on an engineering experts cost build-up of the standard maintenance activities and costs incurred each year for VicHub.	This represents a best estimate because it is built-up based on an asset specific information and understanding i.e. an engineering experts understanding of the standard maintenance activities and costs incurred each year for VicHub.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	2007 - 2019	Net tax liabilities	Estimate	EGP is part of a consolidated tax group and does not pay corporate tax as a stand-alone entity. Therefore the net tax liability needs to be estimated.	No steps taken as actual information does not exist for net tax liabilities. Actual total asset data was not available for	Estimated based on calculation of 30% of Profit/(Loss) before tax. The accounting profit and loss has been reviewed	Accounting profit is the best approach for calculating the cash flows each year and therefore is the most appropriate input into

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
					Actual total asset data was not available for each of the pipelines EGP, QGP and VicHub from 2008 to 2011. Therefore total assets could not be used as a basis to allocate interest costs across the pipelines. .	each of the pipelines EGP, QGP and VicHub from 2008 to 2011. Therefore not steps were taken to locate actual information.	to identify material non-cash items that may require adjustment when estimating the net tax liability cash flow Tax Depreciation (1998 – 2006) was calculated as: LTD Net Capex divided by the estimated tax useful life years. Tax useful life was estimated based on a useful life that align with tax depreciation amounts for 2007 sourced from the SAP Fixed Asset Tax Register. The aggregate 2012 and 2013 percentage split of interest expense between EGP, Vic Hub and QGP was used to allocate total	the net tax liability calculation. Accounting profit has been sourced from actual historic records and therefore has been arrived at on a reasonable basis. The first year of post-acquisition tax depreciation is the most appropriate basis to estimate pre-acquisition tax depreciation because it is based on an actual data source. The 2012 to 2013 interest split percentages between EGP, QGP and VicHub was the best estimate for the years

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
							pipeline interest between pipelines for the period 2008 – 2011.	2008 to 2011 because it is the closest time periods where actual data was available. Further the average pipeline interest for the 2012 & 2013 period most closely aligned with the average pipeline interest for the 2008 to 2011 period.
Table 4.1: Recovered capital method - pipeline assets	Pipeline Assets	1998 – 2019	Rate of return	Estimate	The Guideline advises that the rate of return should be determined each year and should be commensurate with the prevailing conditions in the market for funds and reflect the risk EGP face in providing pipeline services. The Guideline Explanatory Statement (pg. 25) advises with regard to the	Actual information does not exist for the rate of return. SGSPAA estimated the rate of return as a WACC and sourced actual data to input into the WACC calculation. The rate of return is a theoretical concept and does not reference EGP costs, rather it refences regulatory	Refer to Table 4.1: Recovered capital method - pipeline assets - rate of return explanation above.	Using a WACC as an estimate for rate of return is an accepted methodology adopted by the Australian Energy Regulatory (**AER**) and therefore represents the best estimate possible. The data inputs into the WACC have been sourced from published AER accepted sources and

Table Name	Base Information			Population Approach	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information;	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Asset Description	Year	Item	Actual / Estimate				
					'Commercial rate of return' that 'Service provides will be able to determine how this input is estimated'. Usage of the term 'estimated' in the Guideline Explanatory Statement implies that SGSPAA is required to estimate this data input.	decisions that have been applied to the relevant time period.		therefore is a best estimate which has been arrived at on a reasonable basis.
Table 4.1.1: Capital expenditure greater than 5% of construction cost	4.1.1.a	2001	Description of works	Estimate	This expenditure was incurred prior to Jemena's acquisition of the pipeline. To the best of our knowledge and belief Jemena does not have within its possession or control, information that could be used to provide a description of works that were undertaken in 2001.	Enquiries were made with previous owners however Jemena was unable to obtain a description of the works undertaken in 2001.	Previous owner statutory accounts were relied upon for the RCM Capex Additions input. The statutory accounts do not include detailed descriptions of Capex spend.	This is a best estimate based on the statutory account source relied upon. No description of the works undertaken has been included because data is not available.

14. PIPELINE DETAILS

Table Name	Item	Actual / Estimate	Source	Methodology	Assumptions
Table 4.2: Pipeline details	Construction date	Actual	Westcoast Energy, Annual Report 1998, pg. 20	Extracted from report.	Construction date is interpreted as the mid-point of the year when construction commenced
Table 4.2: Pipeline details	Negative residual value	Estimate	Refer to 'Table 4.1: Recovered capital method - pipeline assets' source.	Refer to 'Table 4.1: Recovered capital method - pipeline assets' methodology explanation.	Refer to 'Table 4.1: Recovered capital method - pipeline assets' assumptions.

15. CAPITAL EXPENDITURE

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 4.1.1: Capital expenditure greater than 5% of construction cost	4.1.1.a	Description of works, Date recognised, Expenditure ($ nominal)	Estimate: 2001 Actual: 2008, 2014 and 2015:	SAP (Referencing the RCM template)	EGP analysed the underpinning data for the RCM template and with a view to identifying any capex that is > than 5% of the construction cost. EGP had capex that met the criteria of the template in: 2001, 2008, 2014 and 2015. 2001: This expenditure was incurred prior to Jemena's acquisition of the pipeline. To the best of our knowledge and belief EGP does not have within its possession or control, information that could be used to provide a description of works that were undertaken in 2001. Enquiries were made with previous owners however EGP was unable to obtain a description of the works undertaken in 2001. Refer to Explanation of estimated amounts (pg. 68) for further details of this estimate. 2008, 2014 and 2015: EGP extracted Description of works, Date recognised and Expenditure ($ nominal) from the SAP FAMR. *Mid-point Net Capital Expenditure Gross Up* SAP FAMR Expenditure ($ nominal) are escalated to a mid-year point to account for the return on capital for capital expenditure incurred during the year.	EGP has interpreted that the capex required in the template is for the life to date basis for the pipeline. For the Jun18 disclosures, EGP interpreted that the capex required in the template only related to the period 1 Jan 18 to 30 Jun 18.

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					$$Mid\ Point\ Gross\ Capex = Capex \times (1 + Rate\ of\ Return\ percentage)^{0.5}$$ The Rate of Return percentage input calculation methodology is further explained with the Recovered Capital Method above (refer to 'Rate of Return' item).	

16. WEIGHTED AVERAGE PRICES

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 5.1 Weighted average prices	No BoP Reference cells in the template	Volume	Estimate	PypIT is the best source to provide data for the purposes of calculating the weighted average price since it is the only system that captures information related to revenue, volume and category breakdown and details in the same place.	Data extracted from PypIT is compared and checked against SAP balances and reference tariffs before being categorised accordingly based on service type per details below Where necessary, data has been manually categorised as follows: **Categorisation of Charge Method** The “Other Services” category represents revenue and volumes associated with ***Firm Park*** and ***Premium Park*** services. As these services are charged on a Maximum Daily Quantity (**MDQ**) basis they have been categorised as Capacity-based services in the template. The "Postage Stamp Transportation Services" represents revenue and volumes associated with TGP (Tasmanian Gas Pipeline) Transfer Services. Per the Section 5 of the Guideline, these services are where the same charge is payable along the length of the pipeline, irrespective of the distance transported. This includes the ***TGP Class A*** service which is a "Firm Forward haul transportation service" and ***TGP Class B*** services (B1 and B2) which are "Interruptible or as available transportation services". Firm services are charged on a capacity basis (i.e. MDQ), while Interruptible and As Available services are charged on a volumetric basis (i.e. actual deliveries).	Some specific charges / services are not relevant to the weighted average price calculation (i.e. not part of the service categories required under the weighted average price template as specified in Section 5 of the Guideline). This is discussed further below. In determining the total revenue to be used in calculating the weighted average price, there are certain service types which fall under "Other Direct Revenue" in Table 2.1.1 that were intentionally be omitted from the weighted average price calculation as it does not form part of the main pipeline revenue generating services. These services include: - As Available Park Service

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					The "Zonal Based Transportation Services" consists of data relating to 3 service types: ***Firm Forward***, ***As Available Forward*** and ***As Available Backhaul***. 1. Firm Forward data has been reported in the "Firm Forward haul transportation services" row under the capacity based column headings as the charges for these services are based on MDQ volumes. 2. "Interruptible or as available transportation services" consist of revenue and volumes for ***As Available Forward*** services. Charges are based on actual delivered volumes and thus captured under the volumetric based column headings which are based on actual delivery volumes. 3. "Backhaul Services" include revenue and volumes for both ***As Available Backhaul*** and ***Firm Backhaul***. As there are both firm and as available components, data has been allocated to the appropriate columns i.e. Firm services charged at MDQ reported as capacity based and As Available services charged on actual deliveries recorded as volumetric based data. Volumes are obtained and adjusted per below: **<u>Volume Calculation</u>** Volume data has been estimated for each service and charge reported in the template by adjusting the raw data obtained	- Authorised Overrun Charge - Unauthorised Overrun Charge - Imbalance Charge - Minimum Monthly Service Charge - Odorisation Charge - User Specific Facility Charge - Bairnsdale City Gate Facility Charge - Shipper Specific Facility Charge - Transfer Service. The invoice data in PypIT reflects actual invoicing and has been used as the basis of allocation of revenue to services and charges. Based on the invoice data retrieved from PypIT, the revenue and volume data used in the weighted average price calculation is included/excluded based on

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					from the PypIT reports. Manual calculations have been performed to calculate the relevant volumes to be included in the WAP calculations. The volume used in the weighted average price calculation are based on the service type. For Firm Services, Premium Park and TGP Transfer-Class A, volumes are based on MDQ. To obtain the total relevant volumes for a particular month, the MDQ needs to be multiplied out by the number of days in the month. For As Available service and TGP Transfer-Class B2, the actual delivery volumes would apply.	the revenue charge type and service type categorisation. The MDQ used in the calculation (as referred to in the methodology) is the applicable MDQ on the last day of the month. The volume calculated is therefore only an estimated volume because there are instances where MDQ in the month is not constant on all days. For services where calculated volumes are materially different from the total invoiced volumes (typically where there have been curtailments or large MDQ changes), the invoiced volumes have been used.
Table 5.1 Weighted average prices	No BoP Reference cells in the template	Revenue	Actual	PypIT	Categorisation of data per above Volume Methodology. **Revenue Calculation** The revenue obtained in the report to be used in the weighted average price calculation is based on the sum of the relevant charges per the assumptions listed out in this paper. The relevant charges are added together to come to an adjusted	As per above assumption, using the invoice data retrieved from PypIT, the revenue and volume data used in the weighted average price calculation is included/excluded based on the revenue charge type and

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
					revenue figure before it is used in the final weighted average price calculation. In populating the template, it was found that there were insufficient columns for the services to be split out appropriately under the wider Zonal Based Transportation Services column. The existing template only splits this into Zone 1,2 and 3 services but does not take into account multi-zone transmission i.e. Services from Zone 1 to Zone 2 and also Zone 3 to Zone1. Hence, extra columns were added to the template to reflect this. Note that delivery points are: • Zone 1: Bairnsdale (Lateral) – City Gate, Bairnsdale Lateral) – Power Station, • Zone 2: Bombala, Cooma, Hoskinstown (ACT), Nowra and • Zone 3: Horsley Park (STTM), Wilton JGN (STTM), Port Kembla (STTM), Albion Park (STTM), Wilton MSP, Yallah, Bomaderry. **Weighted Average Price Calculation** The final weighted average price calculation is based on the revenue calculated divided by volume calculated per above in line with section 5.1.2 of the Guideline.	service type categorisation. In instances where charges have been invoiced across several zones, revenue has been allocated between the zones on a case by case basis based on our understanding of the usage and contracted structure of the service. For services with minimum monthly charges (typically for services charged on a throughput basis), the charges associated with actual usage have been extracted from the minimum service charge and included in the revenue for the weighted average price calculation.

17. EXEMPT WAP SERVICES

Table Name	Base Information		Population Approach	Source	Methodology	Assumptions
	Reference	Item	Actual / Estimate			
Table 5.1.1 AER Exemptions	No BoP Reference cells in the template	N/A	Actual	PypIT System as per description in Table 5.1	Based on a report run out of PypIT, the number of customers by service type by pipeline can be determined. Based on this information, the service types by zone that have no more than 2 shippers were identified and were listed out to AER for exemptions to apply in accordance with section 5.3 of the Guideline. The AER notified us that no aggregation of services were required.	

18. ESTIMATED INFORMATION

Table Name	Base Information		Population Approach	Source	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Reference	Item	Actual / Estimate					
Table 5.1 Weighted average prices	No BoP Reference cells in the template	Volume	Estimate	As Above	This is due to the system limitations of PypIT as it was not built for this reporting purpose.	Jemena Group is currently working towards developing a PypIT report that captures the relevant data for the WAP calculation. A planned completion date for these software changes has not been finalised.	PypIT contains contract details (MDQ, tariff and terms), nominations, invoice amounts, pipeline schedules and actual deliveries for all our shippers and services. Currently there is no report in place in PypIT that provides the data in a way to be used to calculate the WAP. EGP is required to manually extract the relevant information to be used in the calculations and include/exclude components in the	This is the best estimate given the information available from PypIT. We are not aware of any alternative information available to us at this time.

Table Name	Base Information		Population Approach	Source	Why it was not possible for Jemena Group to provide actual information	Steps Jemena Group took to locate actual information	Basis for the estimate, including the methods, assumptions and inputs used	Why the estimate represents the best estimate possible in the circumstances and has been arrived at on a reasonable basis.
	Reference	Item	Actual / Estimate					
							calculations based on the assumptions associated with Table 5.1. Due to the recategorisation / split out of the raw data from the report and the calculation of the weighted average prices based on these manually adjusted figures, the data disclosed are only estimates.	

19. APPENDIX A - SUMMARY OF FORMULA UPDATES WITHIN TABLES

#	Table	Worksheet	Cell Ref	Title	Explanation & Justification	Excel formula before change	Excel formula after change
1	Table 2.1: Statement of pipeline revenues and expenses	2. Revenues and expenses	D11	Change to prevent the 'Other direct revenue' item being reported twice	The item 'Other direct revenue' appears on both: - Table 2.1: Statement of pipeline revenues and expenses - Table 2.1.1: Revenue by service To prevent the number being reported twice we updated the Table 2.1.1: Revenue by service total to exclude 'Other direct revenue'.	='2.1 Revenue by service'!**D23**	=SUM('2.1 Revenue by service'!**D11:D21**)
2	Table 2.1: Statement of pipeline revenues and expenses	2. Revenues and expenses	D29:D37	Sumif() formula referenced an incorrect range was not using fixed addresses	The sumif() formula referenced an incorrect range and was not using fixed addresses. It appears that as the formula was dragged down the sumif() range continued to change when it should have remained consistent.	E.g. D29 =SUMIF('2.4 Shared costs'!$D10:$D36,'2. Revenues and expenses'!$C29,'2.4 Shared costs'!**H10:H36**) E.g. D30 =SUMIF('2.4 Shared costs'!$D11:$D37,'2. Revenues and expenses'!$C30,'2.4 Shared costs'!**H11:H37**)	E.g. D29 =SUMIF('2.4 Shared costs'!$C$9:$C$17,$C29,'2.4 Shared costs'!**$H$9:$H$17**) E.g. D30 =SUMIF('2.4 Shared costs'!$C$9:$C$17,$C30,'2.4 Shared costs'!**$H$9:$H$17**)
3	Table 2.1: Statement of pipeline revenues	2. Revenues and expenses	E29:E37	Sumif() formula referenced an incorrect range was not using fixed addresses	The sumif() formula referenced an incorrect range and was not using fixed addresses. It appears that as the formula was dragged down the sumif() range	E.g. E29 =SUMIF('2.4 Shared costs'!$D10:$D36,'2. Revenues and expenses'!$C29,'2.4 Shared costs'!**I10:I36**) E.g. E30 =SUMIF('2.4 Shared costs'!$D11:$D37,'2. Revenues and	E.g. E29 = SUMIF('2.4 Shared costs'!$C$9:$C$18,$C29,'2.4 Shared costs'!**$I$9:$I$17**) E.g. E30 =SUMIF('2.4 Shared

#	Table	Worksheet	Cell Ref	Title	Explanation & Justification	Excel formula before change	Excel formula after change
	and expenses				continued to change when it should have remained consistent.	expenses'!$C30,'2.4 Shared costs'!**I11:I37**)	costs'!$C$9:$C$18,$C30,'2.4 Shared costs'!**$I$9:$I$17**)
4	Table 3.1: Pipeline assets	3. Statement of pipeline assets	D58	Other depreciable assets - Additions not included in the sumif() formula	The sub-heading 'Other depreciable pipeline assets' does not include a row for 'Additions and improvements capitalised'. The sumif() formula was updated to include 'Table 3.3.1: Fixed assets at cost - pipeline assets - Additions' (column I). Note: No amount reported 'Table 3.3.1: Fixed assets at cost - pipeline assets - Capitalised maintenance' (column J), conclude that it ok to replace Column 'J' with 'I' in the formula.	=SUMIF('3.3 Depreciation'!$D$9:$D$52,'3. Statement of pipeline assets'!C57,'3.3 Depreciation'!$H$9:$H$52)+SUMIF('3.3 Depreciation'!$D$9:$D$52,'3. Statement of pipeline assets'!C57,**'3.3 Depreciation'!$J$9:$J$52**)	=SUMIF('3.3 Depreciation'!$D$9:$D$52,'3. Statement of pipeline assets'!C57,'3.3 Depreciation'!$H$9:$H$52)+SUMIF('3.3 Depreciation'!$D$9:$D$52,'3. Statement of pipeline assets'!C57,**'3.3 Depreciation'!$I$9:$I$52**)
5	Table 3.1: Pipeline assets	3. Statement of pipeline assets	D61	Other depreciable assets subtotal does not include the 'disposals' row.	Other depreciable assets subtotal does not include the 'disposals' row. Therefore the table will not reconcile with 'Table 3.3.1: Fixed assets at cost - pipeline assets' inputs	=SUM(D58:**D59**)	=SUM(D58:**D60**)
6	Table 3.3.1: Fixed assets at cost - pipeline assets	3.3 Depreciation	D9	Remove 3.3.1 'City Gates' data validation to enable table 3.1 Sumif() formulas to calculated correctly	Data validation removed to enable input of the text 'City Gates, supply regulators and valve stations'. This changed enabled 'Table 3.1: Pipeline assets 'City Gates, supply regulators and valve stations'	N/A	N/A

#	Table	Worksheet	Cell Ref	Title	Explanation & Justification	Excel formula before change	Excel formula after change
					sumif() formula in cells D23:D26 to calculated correctly.		