October 2018

financial reporting guideline for non-scheme pipelines

basis of preparation

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Contents

1 introduction

In August 2017, the Council of Australian Governments (COAG) Energy Council introduced a new Information Disclosure and Arbitration Framework to apply to gas pipelines that were not subject to other economic regulation. These pipelines are referred to as 'non-scheme' pipelines, and the framework was implemented through a new Part 23 to the National Gas Rules.

The Objective of the Scheme, as stated in Part 23 of the National Gas Rules, is as follows:

> (1) The objective of this Part is to facilitate access to pipeline services on non-scheme pipelines on reasonable terms, which, for the purposes of this Part, is taken to mean at prices and on other terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market.
>
> (2) This Part is intended to contribute to achieving the objective in subrule (1)by means of:
>
> > (a) requirements for the publication and exchange of information to facilitate timely and effective commercial negotiations in relation to access to non-scheme pipelines;
> >
> > (b) a commercially-orientated arbitration process to resolve access disputes in a cost-effective and efficient manner; and
> >
> > (c) principles that the arbitrator must have regard to when determining access disputes, which are consistent with the outcomes of a workably competitive market.

As part of the new information disclosure requirements, pipeline service providers must publish specific financial information in accordance with a Financial Reporting Guideline developed by the relevant regulator.

The Australian Energy Regulator (AER) and the Western Australia Economic Regulation Authority (ERA) have prepared Financial Reporting Guidelines as required under Rule 557. These Guidelines are, in all material respects, aligned.

This Basis of Preparation should be read in conjunction with those Guidelines and Part 23 of the National Gas Rules.

The AER and ERA Guidelines create a new Special Purpose Financial Reporting Framework which differs in significant ways from the normal statutory reporting framework defined by Australian Accounting Standards. Because of these differences, the information produced under Part 23 will not reconcile to any financial information prepared by the Service Provider under Australian Accounting Standards.

Part 23 requires reporting in three distinct categories:

1. Pipeline Financial Information, which complies with Australian Accounting Standards, except where the Guideline provides a methodology that is not consistent with that disclosed under Australian Accounting Standards;
2. An asset valuation under the Recovered Capital Method; and
3. Weighted average price information.

This Basis of Preparation document applies to the following non-scheme pipelines and Service Providers:

Pipeline	Service provider
Berwyndale Wallumbilla Pipeline	APT Pipelines Investments (BWP) Pty Ltd
Eastern Goldfields Pipeline	APA Operations Pty Ltd
Goldfields Gas Pipeline	Goldfields Gas Transmission Pty Ltd
Moomba Sydney Pipeline	East Australian Pipeline Pty Ltd
Murrin Murrin Lateral Pipeline	APA Operations Pty Limited
Parmelia Gas Pipeline	APT Parmelia Pty Ltd
Pilbara Energy Pipeline System	APA (Pilbara Pipeline) Pty Ltd
South East South Australia Pipeline	APT Pipelines (SA) Pty Ltd
South West Queensland Pipeline	APA (SWQP) Pty Ltd
Wallumbilla Gladstone Pipeline	APA WGP Pty Ltd

1.1 pipeline-specific information

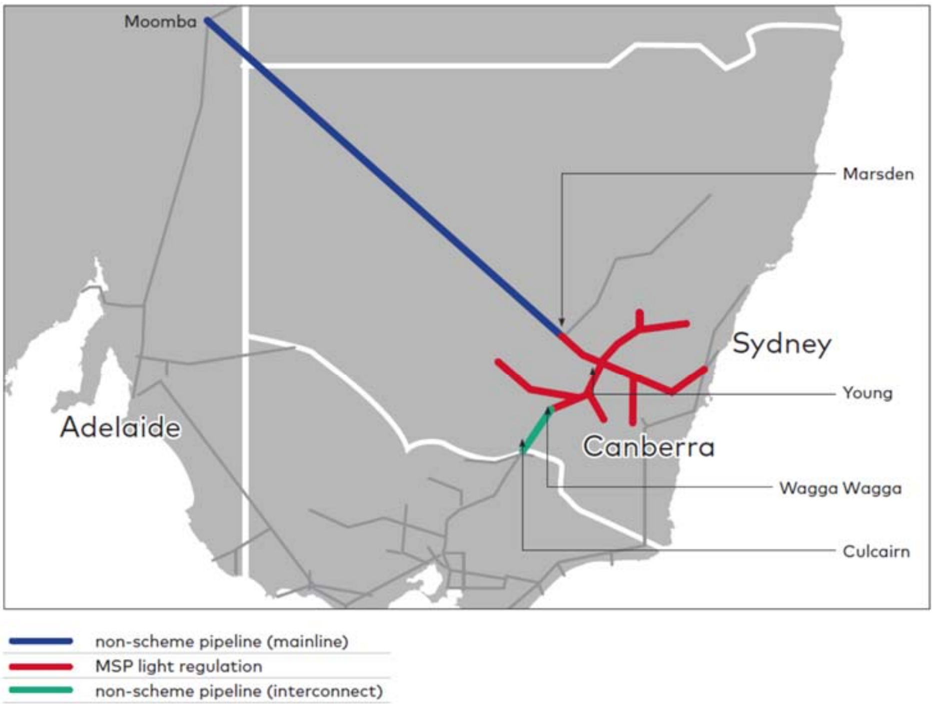
1.1.1 *Moomba Sydney Pipeline*

This Basis of Preparation and the accompanying templates report the Moomba Sydney Pipeline ("MSP") as a single integrated pipeline system.

For regulatory purposes, the MSP consists of:

- a non-scheme pipeline from Moomba to Marsden (marked blue on the MSP map below);

- a light regulation (i.e. scheme) pipeline system from Marsden to Sydney, with laterals serving Canberra, Wagga Wagga, Griffith and Lithgow (marked red on the MSP map below);
- a non-scheme pipeline (interconnector) between Wagga Wagga and Culcairn (marked green on the MSP map below).



A strict application of the Financial Reporting Guideline would require reporting of the Moomba-Marsden pipeline and the Wagga-Culcairn interconnect as separate pipelines, and no reporting for the light regulation section serving Canberra, Wagga Wagga, Lithgow, etc.

APA considers that preparing these reports for only the non-scheme components of the MSP presents scope for misunderstanding, as this is not consistent with the way customers contract for gas transportation on the MSP. APA has therefore presented this information for the whole pipeline system, resulting in financial information, including weighted average prices, being consistent with the way in which customers contract on the MSP and therefore more consistent with the intent of the financial reporting and guidelines.

1.1.2 *Goldfields Gas Pipeline*

The Goldfields Gas Pipeline is owned through a joint venture arrangement, with two APA companies (Southern Cross Pipelines Australia Pty Ltd and Southern Cross Pipelines (NPL) Australia Pty Ltd) and Alinta Energy GGT Pty Ltd as the joint venturers. The reporting Service Provider nominated by the joint venturers is the pipeline operator, Goldfields Gas Transmission Pty Ltd.

While the Goldfields Gas Pipeline is covered (i.e. a scheme pipeline) and subject to a full access arrangement drafted and approved by the WA Economic Regulation Authority, the Goldfields Gas Pipeline also includes some capacity which is not covered by the gas access regime (the "uncovered capacity"), which is subject to reporting under Part 23 of the Rules.

While the operator has access to all relevant information on capital and operating expenditure in respect of the uncovered capacity, it has no information regarding the revenues earned by all of the joint venturers or on the tax position of the joint venturers.

The operator requested revenue information from the joint venturers. While this information was able to be provided by the Southern Cross companies, it was not able to be provided by Alinta for periods prior to 1 January 2018.

In the preparation of the financial information under this Guideline, the operator has estimated the historical revenue earned by Alinta from the provision of pipeline services using the uncovered capacity for the purposes of the Recovered Capital Method asset valuation. This estimate was based on the amount of uncovered capacity attributable to Alinta over the relevant period and an estimate of prevailing gas transportation tariffs in the market at the relevant time. While this estimate is unlikely to be precisely accurate, any inaccuracy is unlikely to have any material impact on the Recovered Capital Method asset value as at 30 June 2018.

1.1.3 *Parmelia Gas Pipeline*

The Parmelia Gas Pipeline consists of a mainline, which is subject to Part 23 reporting, and a number of laterals, for which Part 23 reporting exemptions have been granted.

However, the opening regulatory asset value and the subsequent underlying accounting records are insufficiently granular to reasonably differentiate all assets, revenues and costs between the mainline and the various laterals. The Recovered Capital Method asset valuation for the Parmelia mainline includes all capital costs, revenue and operating expenditure attributable to the laterals. APA considers that this will not materially misstate the RCM asset value of the Parmelia mainline. As the laterals generally serve single customers, Weighted Average Prices have not been reported for the exempt laterals.

1.2 rounding

Totals in the templates provided may not add due to rounding.

2 pipeline financial information

2.1 sources of information

The APA Oracle financial system is the primary source of financial information. This system supports APA's audited financial statements which are prepared in accordance with the requirements of Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board (AASB) and also comply with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Financial information generated by the APA Oracle financial system underpins the reported *Statement of Pipeline Revenue and Expenses* and *Statement of Pipeline Assets* for the following categories:

- **Revenue:** The APA Oracle financial system's revenue recognition complies with the revenue recognition principles prepared in accordance with the requirements of Australian Accounting Standards.
- **Operating direct costs:** APA's operating cost categories are in line with the categories identified in the section 3.1.1.2 of the Guideline.
- **Assets:** Fixed asset opening cost bases and capital additions for the pipeline financial information is consistent with statutory financial reporting requirements.

Operating shared support costs have been based on a benchmarking report prepared by an expert independent global auditing and advisory firm, which determined the efficient level of corporate overheads incurred by an operating entity with equivalent operational and demand characteristics to each relevant non-scheme pipeline[1].

2.2 general methodology and principles

Methodologies used for the preparation of the *Statement of Pipeline Revenue and Expenses* and *Statement of Pipeline Assets* are broadly consistent with the methods used in the preparation of APA's statutory financial accounts except for operating and shared support costs.

Financial information for each non-scheme pipeline has been prepared based on the relevant Service Provider's Trial Balance which forms part of *APA's Consolidated Statutory Financial Statements*, where appropriate. The *Statement of Pipeline Assets* includes all assets connected with the asset base of the non-scheme pipeline.

[1] Replicates a standalone firm with a single asset operating in a workably competitive market

There are instances where the reporting of non-scheme pipelines does not align with legal entity reporting. In these instances, the financial information provided is generally supported by APA's management reporting, and the information has been further verified through underlying customer contracts, customer correspondence, third party operating agreements, direct costs and detailed reviews of invoices and asset registers as relevant.

The *Statement of Pipeline Revenue and Expenses* and *Statement of Pipeline Assets* for each non-scheme pipeline has been reviewed by APA's external auditor, Deloitte Touche Tohmatsu, in accordance with the Australian Auditing Standard on *Review Engagements ASRE 2405 Review of Historical Financial Information Other than a Financial Report*.

2.3 statement of pipeline revenue and expenses

2.3.1 *revenue*

In accordance with Australian Accounting Standards, revenue is recognised to the extent that it is probable that the economic benefits will flow to the service provider and can be reliably measured. Amounts disclosed as revenue are net of duties and taxes paid. Direct revenue is earned from the transportation of gas.

Revenue is directly attributed to the pipeline that earns the revenue based on the underlying contract and has been allocated to revenue categories in accordance with the Guideline as direct revenue. In those instances where a type of service does not align with a template category, it has been presented as "other direct revenue" in Table 2.1.1 of the reporting template.

Any revenue that is generated under agreements that do not separate the revenue by pipeline has been allocated to each pipeline using an appropriate allocator or allocators. Further information on the revenue allocation on the Multi Asset Services is found in section 2.3.1.2 below.

Pipelines with contracted revenues denominated in foreign currencies are translated in accordance with the requirements of Australian Accounting Standards.

2.3.1.1 related party transactions

Related parties sometimes provide services to customers. APA reports transactions with APA businesses engaged in gas trading activities as related party transactions. Transactions with related parties are based on arm's length commercial terms.

Multi Asset Services are not reported as related party transactions.

2.3.1.2 revenue from Multi Asset Services and allocation methodology

Where APA provides a service across a number of pipelines under a single contract ("Multi Asset Services") it is necessary to allocate the revenue from that service across the various pipelines providing that service.

The allocation methodology for Multi Asset Services is designed to take into account regulatory and contractual obligations which dictate the tariffs that would be charged on the individual pipelines used to supply a Multi Asset Service. For example, where a pipeline covered by light regulation (such as the Carpentaria Gas Pipeline) is used to supply a Multi Asset Service, the amount of revenue allocated to that pipeline in connection with the Multi Asset Service would reflect the relevant non-discriminatory tariff offered on that pipeline.[2]

Consequently, the allocator that is applied for each revenue item will vary, depending on the specific nature of the Multi Asset Service, and in particular, the non-scheme pipelines involved.

APA considers that this is the most appropriate method of allocation, as it reflects the reality of the regulatory and contractual restrictions on prices (and therefore revenue) that may be earned on individual pipeline segments. This method ensures that, where regulatory and/or contractual limitations apply, the revenue allocated to individual pipeline segments is consistent with those limitations.

The portion of revenue attributed to the service provider is reported as direct revenue in Table 2.1 of the reporting template.

2.3.2 *costs*

All costs (operating and capital) are captured in the APA Oracle financial system through cost centre and project reporting. The cost centre and project reporting provides details on the activity type of the costs, reflecting categories of capital, operating & maintenance activities and services.

APA has attributed costs directly to projects, activities and services where possible and appropriate. Where costs are shared, and unable to be directly attributed, activity-based costing and appropriate cost allocators are used to allocate costs across projects, activities and services.

The key cost allocation principles APA has adopted are as follows:

- costs are not allocated more than once;

[2] Section 136 of the National Gas Law specifies that a covered pipeline service provider must not engage in price discrimination when providing light regulation services, unless to do so is conducive to efficient service provision.

- costs cannot be treated as a directly attributed cost and other attributable cost;
- costs are allocated on a causal basis, in instances where direct attribution is not possible.

When assessing APA's operating and capital costs, the bulk of APA's costs fall within two categories:

- directly attributable costs: Expenses that are clearly associated with a non-scheme pipeline. Direct costs are coded to the asset or to a project relating to the asset, through creation of a purchase order at the time of purchase or direct employees charging their time to the asset or project, using an hourly rate derived from employee payroll costs.

  Examples of such costs include the pipeline and materials expenses directly attributed to repair and maintenance of non-scheme pipelines and the employees who are solely dedicated in providing field services to the non-scheme pipeline.

- other attributable costs: Other expenses are costs not directly attributable to the assets but incurred by APA's Transmission division[3]. In order to give a true reflection of the cost of running an asset, it is necessary to allocate APA's Transmission costs to the asset. APA's Transmission costs are reviewed periodically to determine the extent to which the business unit's function has a bearing on the assets.

  Examples of such costs include the allocation of APA's Integrated Operations Centre (IOC) which manages APA's non-scheme and regulated pipelines throughout Australia.

The reported operating expenditure in the *Statement of Pipeline Revenue and Expenses* are inclusive of adjustments so that those costs are equivalent to those of a firm operating a business of a size and complexity of the non-scheme pipeline in the context of a workably competitive market. The adjustments have been reported in "Other direct costs" in Table 2.1 of the reporting template.

For other attributable costs, APA has utilised the following cost allocation methodologies:

- time/effort based - national transmission pipeline services such as the IOC costs are assigned to each non-scheme pipeline, reflective of time spent.

[3] Transmission Division is responsible for the management of APA Group's transmission and gas storage assets, including all aspects of commercial and operational performance.

- customer based - national cost centres that provide transmission services such as daily nominations, invoicing and billing allocate their costs based on the number of customers.
- state based - national services such as Health, Safety and Environment are provided by state based employees. The state based costs are allocated to the pipelines within that state using the cost allocators stated.
- headcount based - national services such as Human Resources Training and Development are allocated to the business based on the number of overall headcount in the business.

2.3.2.1 depreciation expense

Depreciation expense for each non-scheme pipeline has been calculated in line with the standard lives as set out in Appendix A (AER) or 1 (ERA) of the Guideline.

2.3.2.2 shared support costs

APA reports its total corporate costs at the consolidated level in its audited financial statements. APA does not allocate corporate costs to individual non-scheme pipelines or business segments in its financial reporting systems.

APA engaged an expert global auditing and advisory firm to undertake an independent benchmarking analysis to estimate the efficient amount of corporate costs that would be incurred by a firm operating a business of a size and complexity equivalent to the size and complexity of the non-scheme pipeline in the context of a workably competitive market. Where the expert has prepared a bespoke analysis for the relevant pipeline, APA has applied these findings directly without amendment. The expert also prepared a more generic report estimating corporate costs based on a range of revenue levels, which APA has used as a guide in estimating the amount of corporate costs to be allocated to other assets.

The APA corporate costs attributable to the service provider are reported in Table 2.4.1 of the reporting template.

2.4 statement of pipeline assets

2.4.1 *asset valuation principles*

Consistent with section 2.3.2 above, all capital is captured in the APA Oracle financial system through cost centre and project reporting. Capital costs are assessed in accordance with *AASB 116 Property, Plant and Equipment*. Once it has been determined that it is appropriate to capitalise the costs, they have been attributed directly or indirectly to the non-scheme pipeline via the cost allocation drivers described in section 2.3.2.

In addition to directly attributed capital costs and other attributable costs, each non-scheme pipeline has been allocated a portion of the shared support assets.

The asset values in the *Statement of Pipeline Assets* have used the depreciated book value method, which is consistent with Australian Accounting Standards. The asset values represent historical/acquired cost, plus capital expenditure, less disposals and less depreciation based on the asset lives identified in Appendix A of the Guideline adopted at inception.

No revaluations of the asset base have been included in the *Statement of Pipeline Assets*.

2.4.2 *capitalisation principles*

Construction, acquisition, major maintenance and asset replacement costs are capitalised in accordance with *AASB 116 Property Plant and Equipment*. The asset is capitalised when commissioned and any capital work in progress at period end is reported in the *Statement of Pipeline Assets* as "Other depreciable assets".

Consistent with *AASB 116 Property Plant and Equipment*, the cost of major inspections has been added onto the carrying value of the pipeline asset in the capital maintenance line of the reporting template where applicable. Costs of previous major inspections are simultaneously derecognised.

The following costs associated with routine maintenance and repairs are expensed as incurred:

- administration and general overhead costs;
- labour and consumables; and
- staff training costs.

2.4.3 *depreciation principles*

Depreciation has been calculated consistently based on the asset lives principles in section 3.2.3 of the Guideline.

For non-pipeline asset classes, APA has applied depreciation principles in line with statutory reporting, which is in accordance with Australian Accounting Standards.

2.4.4 *shared support assets*

APA does not allocate its total shared support assets (eg. shared IT systems) among its non-scheme pipelines in the APA Oracle financial system.

In order to determine the value of support assets attributable to each service provider, APA has adopted the ratio of attributed corporate costs (as identified in section 2.3.2.2) to total APA corporate costs for the reporting period:

$$\text{Service provider shared assets} = \text{Total APA shared assets} \times \frac{\text{Service provider corporate costs}}{\text{Total APA corporate costs}}$$

The proportion of APA shared support assets attributable to the service provider is reported in Table 3.4.1 of the reporting template.

3 asset value determined using the recovered capital method

3.1 overview

An asset valuation calculated using the Recovered Capital Method (RCM) is intended to estimate the remaining value of a pipeline asset, in nominal terms, after allowing for ongoing capital expenditure, recovery of operating costs, a commercial return on capital, and tax thereon. It also includes an allowance for end-of-life decommissioning and environmental rehabilitation costs.

This calculation requires information regarding the original construction cost of the pipeline, in nominal terms in the hands of the original project proponent, and annual information on ongoing capital expenditure, operating costs, the required returns on capital in any given year commensurate with prevailing conditions in the market, and an estimate of the tax burden on the return on capital.

Column totals may not add due to rounding.

3.2 sources of information

While some of the required information can be drawn from published financial information, some cannot be observed, and consistent with section 4.1 of the Guideline, must be estimated or calculated based on a set of inputs.

This section outlines the sources of information applied, and the calculation methodologies and relevant inputs where appropriate.

3.2.1 *original construction cost information*

assets constructed by APA

The original construction cost of assets built by APA was extracted from the APA financial accounting system and fixed asset registers, as appropriate. Historical archived hard copy documents were consulted where necessary.

assets acquired by APA

Where assets were acquired by APA, the original construction cost was derived from a number of sources:

- fixed asset registers and accounting system information acquired from the vendor on the transaction;
- public statutory account information from the Australian Securities and Investments Commission (ASIC) website, government websites, or other public sources.

Information for years following APA's acquisition of the business has been drawn directly from APA financial systems.

Disposals have been recorded at gross historical cost to avoid double counting (book and RCM) depreciation.

3.2.2 *revenue and operating expenditure*

For as long as the service provider has been part of the APA Group of companies, revenue information has been drawn directly from the APA financial systems.

Prior to APA acquisition, revenue and operating expenditure has been derived from financial information provided by the previous service provider, financial statements lodged by the service provider with ASIC, or from other public sources as appropriate.

In instances where APA has used other sources of information, further information can found in Tab 6 of the reporting templates for each non-scheme pipeline.

operating expenditure during period of APA Group ownership

While assets have been part of the APA Group, some operating costs have been incurred at a divisional or corporate level, rather than by individual service provider entities. For the purposes of reporting in accordance with Part 23 of the Rules and the Guideline, the operating expenditure incurred at the divisional or corporate level has been allocated to individual service providers.

The incurred operating expenditure has been allocated using a cost allocation method in the context of delivering outcomes consistent with a workably competitive market[4]. The reported operating expenditure is inclusive of adjustments so that those costs are to be equivalent to those of a firm operating a business of size and complexity of the non-scheme pipeline in the context of a workably competitive market.

corporate costs during period of APA Group ownership

APA reports its corporate costs at the consolidated level for statutory accounting purposes. That is, APA does not allocate its corporate costs among its operating businesses in its financial reporting systems.

In preparing this financial information, APA has allocated the appropriate amount of corporate costs to be borne by each service provider in accordance with a well-accepted cost allocation method.

Having regard to the objectives of Part 23 of the Rules regarding the outcomes of a workably competitive market, APA has allocated the appropriate amount of

[4] A workably competitive market is where competitive constraints preclude market power.

corporate costs to each service provider as would be incurred by a firm operating a business of a size and complexity of the non-scheme pipeline in the context of a workably competitive market.

APA engaged an expert global accounting and financial advisory firm to undertake an independent benchmarking analysis to estimate the efficient amount of corporate costs that would be incurred by a firm operating a business of a size and complexity of equivalent size and complexity of the non-scheme pipeline. Where the expert has prepared a bespoke analysis for the relevant pipeline, APA has applied these findings directly without amendment. The expert also prepared a more generic report estimating corporate costs based on a range of revenue levels, which APA has used as a guide in estimating the amount of corporate costs to be allocated to other assets.

The proportion of APA shared corporate costs attributable to the service provider in the second half of fiscal 2018 is reported in Table 2.4.1 of the reporting template.

3.2.3 *shared support assets*

APA does not allocate its shared support assets (shared IT systems, etc) among its operating businesses.

Consistent with the approach to corporate costs above, APA has allocated the appropriate amount of corporate shared asset costs to each service provider using a cost allocation method in the context of delivering outcomes consistent with a workably competitive market. A portion of the shared support asset costs has been allocated to the individual service provider, with that portion equal to the amount that would be incurred by a firm operating a business of a size and complexity of the non-scheme pipeline in the context of a workably competitive market.

In order to determine the value of supporting assets attributable to each service provider, APA has adopted the same ratio of attributed corporate costs to total APA corporate costs:

$$\text{Service provider shared assets} = \text{Total APA shared assets} \times \frac{\text{Service provider corporate costs}}{\text{Total APA corporate costs}}$$

Shared asset costs have been attributed to each pipeline for years from construction or acquisition, as appropriate. The proportion of APA shared support assets attributable to the service provider in 2018 is reported in Table 3.4.1 of the reporting template.

3.2.4 *return on capital*

The Guideline requires that the return on capital: [AER and ERA p20]

> *... should be determined for each year and should be commensurate with the prevailing conditions in the market for funds and reflect the risks the service provider faces in providing pipeline services.*

The return on capital to be reported in accordance with this Guideline cannot be read from the published financial statements; it must be estimated using reasonable input parameters and assumptions as outlined below.

The return on capital has been calculated for each non-scheme pipeline on a stand-alone basis. This approach is consistent with the requirement in Section 3.3 of the Guideline [AER p17, ERA p18]:

> *Return on assets is to be provided on a standalone pipeline basis.*

capitalisation

In estimating the return on capital for the purposes of the RCM calculation, it is necessary to assume a level of debt and equity capitalisation.

The reported RCM calculations assume that the total capital held by the business in any given year equals the opening value of the RCM capital base plus half the current year capital expenditure. This cannot be read from the statutory financial statements, even where the business is a single asset service provider.

For example, where an asset has been acquired, the amount of debt and equity capital financing held by the business would be expected to reflect the acquisition cost of the asset. It is likely that the amount of capital held by the business would differ from the value of the capital base as reported under the RCM.

capital structure

APA has sought the professional advice of an independent expert firm in the financial services sector, to advise on the appropriate capital structure for a business of equivalent size to each non-scheme pipeline. This analysis reflects that such a business may not have access to global capital markets, and that local lenders may require a greater proportion of equity to be provided by each individual reporting entity. This capital structure analysis is integrated with the cost of debt analysis.

In any given year, the outstanding amounts of debt and equity sum to the running total opening capital base as calculated to date under the RCM, plus the current year's capital expenditure.

The original construction cost is considered to be funded according to the expert firm's recommended capital structure. However, the capital structure may be amended through the RCM analysis. In particular, where the RCM asset valuation shows a revenue shortfall,[5] this shortfall is modelled to be made up by additional contributions from equity holders rather than by additional borrowing (following the well accepted principle that lenders will not finance losses). New capital expenditure is assumed to be funded by the proportions of debt and equity in line with the expert's study. Capital expenditure earns a half-year return in the year incurred.

return on debt

A market interest rate was determined by an expert firm in the financial services sector, reflecting the opportunities for a business such as the service provider to raise capital, including any adjustments to the gearing ratio that may be required. This analysis allowed a market return on debt to be estimated, having regard to the observed spread above a well-reported swap rate and a premium applied for smaller size and single-asset businesses. The expert firm has calculated a cost of debt for all years included in the RCM analysis.

return on equity

The return on equity has been estimated using the Capital Asset Pricing Model (CAPM):

$$R_e = R_f + \beta\ (R_m - R_f)$$

Where:

R_e	is the Return on equity in the relevant year;
R_f	is the Risk Free Rate in the relevant year;
β	is Beta, a measure of the risk of the asset relative to the market; and
$(R_m - R_f)$	is the "Market Risk Premium".

historical data set

The data set used to estimate the R_f component for historical years is that developed by Brailsford, Handley and Maheswaran (2012)[6] as updated to 2018.

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[5] AER and ERA Financial Reporting Guidelines p20: "Note that under the recovered capital method, if a service provider has not generated sufficient revenue to recover the operating expenditure, return on capital and net tax liabilities in a year, then the return of capital value will be negative, which will increase the value of the capital base."

[6] Tim Brailsford, John C. Handley, and Krishnan Maheswaran. (2012) "The historical equity risk premium in Australia: Post-GFC and 128 years of data" Accounting and Finance, 52 (1), 237-247.

beta

The service provider adopts a beta value of 1.0, reflecting the risks the service provider faces in providing pipeline services as a single-asset unregulated pipeline business, subject to the market and the market of its customers.

market risk premium

A market risk premium of 6.5% has been applied in the Capital Asset Pricing Model as described above. This is consistent with the standard market accepted risk premium over the reporting period.

return on equity

The calculated return on equity is applied to the "running total" opening RCM capital base multiplied by the equity ratio (as discussed under "capital structure" above).

3.2.5 *net tax liabilities*

In order to estimate a net tax liability, APA has adopted a post-tax approach with net tax liabilities modelled explicitly, by undertaking an abbreviated tax calculation:

1. starting with revenue as reported above;
2. less operating expenditure as reported above;
3. interest expense was taken to match that used in the Return on Capital calculation as discussed above;
4. tax depreciation was calculated based on accumulated capital expenditure as reported above, with tax depreciation calculated on a straight line basis over a 20 year life, commencing in the year after expenditure; and
5. tax liability was calculated as this taxable income, multiplied by the prevailing tax rate for the relevant year, as shown below. Where tax losses are generated through this calculation, they are accumulated and preserved, and used to offset against future net tax liabilities as they arise.

3.2.6 *negative residual values*

The Guideline (AER p18, ERA p19) and the reporting template provides for a negative residual value to be recorded to account for end-of-life decommissioning and reclamation costs.

APA has not included negative residual values in this set of reporting.

3.3 estimates

For those few occasions where there were gaps in a series of historical financial information, APA undertook a range of estimation approaches as appropriate to the circumstances:

- where the data stream (revenue, operating expenditure, etc) evidenced a steady pattern, APA interpolated gaps using a straight line methodology; and
- where gaps existed in the capital expenditure stream, APA applied a straight-line approach to interpolate between the historical asset values before and after the gap.

Further detail in relation to estimates for a particular non-scheme pipeline are provided in Tab 6 of the reporting templates applicable to that non-scheme pipeline.

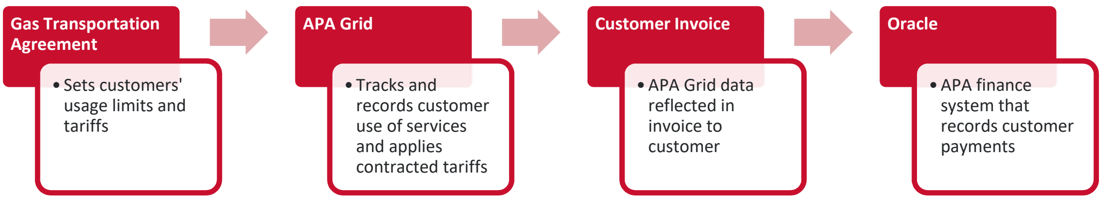
4 weighted average price information

4.1 sources of information

APA has used invoice data for each pipeline for each month of the reporting period to derive weighted average price information. Invoice data is the source for both the revenue and usage data required to perform the weighted average price calculation. In all cases, actual revenue and usage data from invoices has been used – there has been no need to estimate revenue or usage information. In some circumstances, revenue has been allocated to individual pipelines, as described in Section 4.3.1 below.

Invoice data is derived from "APA Grid", which is a suite of Information Technology systems that track pipeline usage and apply relevant tariffs to generate invoice data. APA's Oracle finance system records customer payments.

The prices contained in APA Grid are sourced from Gas Transportation Agreements with customers.



In some instances, a single service is provided across multiple pipelines under a single price. Invoices for these services are issued from a single APA business entity. In these circumstances, APA internal allocation spreadsheets allocate revenue between pipelines. The method used for allocation of revenue between pipelines in these circumstances is described in section 4.3.1 below.

4.2 methodology

The weighted average price calculations for the relevant reporting period have been determined using the formulae set out below:

$$\text{Capacity-based charging} = \frac{\textit{\$Revenue}}{\textit{Maximum Daily Quantity}}$$

$$\text{Volumetric-based charging} = \frac{\textit{\$Revenue}}{\textit{Gigajoules transported}}$$

4.3 determination of revenue

4.3.1 *revenue by pipeline*

Revenue has been allocated to individual pipelines and services in line with contracted services and usage for each pipeline. In most cases, Gas Transportation Agreements include prices that are expressed on a pipeline-by-pipeline basis, and the allocation of revenue between pipelines adopts these individual pipeline prices and contracted usage (for capacity charging) or measured usage (for volumetric charging).

Where a single service is contracted with a customer across multiple pipelines, such that there is no explicit price set for each pipeline segment involved in providing the service, revenue is allocated between pipelines using the allocation methodology described below:

- where regulatory obligations, including those applying to pipelines covered by full or light regulation, specify or limit the price that may be charged on that pipeline segment, the revenue allocated to that pipeline segment will reflect the revenue to be derived from the price that is subject to that specification or limitation;
- where contractual obligations specify or limit the price that may be charged on a pipeline segment, the revenue allocated to that pipeline segment will reflect those specifications or limitations; and
- where allocation is not dictated by regulatory or contractual obligations, revenue will be allocated based on the actual or nominated relative usage of particular pipelines within the service.

This allocation also determines the reporting of revenue by pipeline and pipeline service in APA's financial reporting under section 2.3.1.2 of this document.

The allocation methodology for multi-asset services is designed to take into account regulatory and contractual obligations which dictate the tariffs that would be charged on the individual pipelines used to supply a multi-pipeline service. For example, where a pipeline covered by light regulation (such as the Carpentaria Gas Pipeline) is used to supply a multi-pipeline service, the amount of revenue allocated to that pipeline in connection with the multi-pipeline service would reflect the relevant non-discriminatory tariff offered on that pipeline.[7]

[7] Section 136 of the National Gas Law specifies that a covered pipeline service provider must not engage in price discrimination when providing light regulation services, unless to do so is conducive to efficient service provision.

Consequently, the numeric quantity or percentage of the allocator that is applied for each revenue item will vary, depending on the specific nature of the multi-pipeline service, and in particular, the pipelines involved.

APA considers that this is the most appropriate method of allocation, as it reflects the reality of the regulatory and contractual restrictions on prices (and therefore revenue) that may be earned on individual pipeline segments. This method ensures that, where regulatory and/or contractual limitations apply, the revenue allocated to individual pipeline segments is consistent with those limitations.

4.3.2 *government fees and charges*

In some jurisdictions, governments levy additional fees and charges on pipelines or pipeline licences. Where these fees are passed on by APA through a discrete charge, these charges have not been included in the revenue used to calculate weighted average prices.

4.4 pipeline services

APA has classified pipeline revenue into service type as follows:

- Transportation services
    - Firm forward haul transportation services (includes bi-directional services, if a pipeline operates in a bi-directional manner);
    - Interruptible or as available transportation services;
    - Backhaul services;
- Stand-alone firm compression services; and
- Firm storage (combined park and park and loan) services.

APA has determined the pipeline service type of each of its contracted services in line with the nature and substance of the contracted service.

4.4.1 *transportation services*

firm forward haul

Firm services have been identified as those services that provide for the receipt and delivery of gas at specified points up to a reserved maximum daily quantity (MDQ) on a firm basis and without interruption except as expressly permitted under contract.

APA has consolidated weighted average price information for firm forward haul services in each direction for pipelines capable of providing firm forward haul services in each direction. Relevant bidirectional pipelines are:

- Berwyndale Wallumbilla Pipeline
- Moomba Sydney Pipeline
- South West Queensland Pipeline
- Wallumbilla Gladstone Pipeline

All other relevant non-scheme pipelines are currently single direction pipelines, and firm forward haul services reported values relate to one direction only.

Firm forward haul services can have a number of different charging methods, as described in section 4.5 below. These are:

- Capacity-only charge, where all firm capacity is charged on a $/GJ/MDQ/day basis;
- Throughput-only charge, where firm capacity is reserved, but charged on a $/GJ/day basis; or
- A combination of capacity and throughput charge, where part of the firm capacity is charged on a $/GJ/MDQ/day basis, and part on a $/GJ/day basis.

interruptible or as available transportation services

APA has identified Interruptible, As Available and Authorised Overrun transportation services as transportation services provided to customers with the following characteristics:

- No firm reserved MDQ;
- Scheduled only on a day-ahead or within day basis; and
- Have a priority below the firm forward haul service.

Where Interruptible and As Available services are offered in both directions on a bidirectional pipeline, consistent with firm transportation services, weighted average prices consolidate prices charged in both directions.

APA has reported Authorised Overrun services with Interruptible and As Available services, as they are similar in substance to the listed services. Where Authorised Overrun services are offered in both directions on a bidirectional pipeline, weighted average prices consolidate prices charged in both directions for this service.

A customer may hold a contractual right to nominate Interruptible, As Available and/or Authorised Overrun transportation services, but not use these services within a reporting period.

APA has used the number of customers with contracted Interruptible, As Available and Authorised Overrun transportation services to determine whether it must publish weighted average price information for these services.[8]

Where there is no usage of Interruptible, As Available and Authorised Overrun transportation services within a reporting period by contracted customers, APA is unable to publish a weighted average price for these services.

Therefore, APA has published a weighted average price for these services as long as there was more than two contracted customers, and at least one customer transporting gas under these services in the reporting period.

The reporting units for Interruptible, As Available and Authorised Overrun transportation services are $/GJ/day.

backhaul services

Backhaul services are identified as interruptible services provided on a single direction pipeline in a direction other than the direction of firm forward haul services provided on that pipeline.

Backhaul services can only arise on pipelines that offer a firm transportation service in one direction and have more than one gas Receipt Point on the pipeline.

With the exception of the Parmelia Gas Pipeline, all APA non-scheme pipelines with multiple Receipt Points have firm bi-directional capability. As a result, APA no longer offers backhaul services to customers in its available suite of services. In some circumstances, legacy contracts include backhaul services (in many cases contracted prior to these pipelines having firm bidirectional gas transportation capability), as reported in the template.

4.4.2 *stand-alone firm compression services*

APA provides firm stand-alone compression services at Moomba and Wallumbilla. These services are identified through contractual arrangements that establish an explicit price and MDQ for the compression service.

Firm compression services are only offered in a single direction.

[8] As noted in section 4.6 below, APA is not required to publish weighted average price information in certain circumstances. This includes where a pipeline service was provided, directly or indirectly, to no more than two users of the non-scheme pipeline.

All firm stand-alone compression services contracted with customers have been reported in this weighted average price category.

The reporting unit for the firm stand-alone compression service is $/GJ/MDQ/day.

4.4.3 *firm storage*

Firm storage services are identified by reference to the contractual arrangements for their provision. Firm storage includes Firm Park, Firm Loan and Firm Park and Loan services.

Firm Park involves the park of gas on specified pipelines or locations up to a reserved MDQ on a firm basis and without interruption, except as expressly permitted under contract. Similarly, Firm Loan involves the loan of gas from specified pipelines or locations up to a reserved MDQ on a firm basis and without interruption, except as expressly permitted under contract. Park and Loan storage services can be provided together or independently. There is no directional element to Firm storage services.

All Firm Park and Firm Park and Loan services contracted on relevant pipelines to customers have been reported in this weighted average price category.

The reporting unit for the Firm Park and Firm Park and Loan services is $/GJ/MDQ/day.

4.4.4 *imbalance/unauthorised overrun charges*

Customers may incur additional charges depending on their nomination and usage behaviour. This includes the potential for Imbalance charges and Unauthorised Overrun charges.

Imbalance and Unauthorised Overrun charges are not considered by APA to be charges for any of the transportation, compression or storage services for which weighted average price information must be published under the Guideline. These charges will not ordinarily be incurred by a customer taking a transportation, compression or storage service, provided that the customer's nominations are accurate.

Therefore, such charges incurred by customers have not been included in the calculation of weighted average prices for the transportation, compression or storage services referred to in the Guideline.

However the revenue from these additional charges has been included as part of "other direct revenue" reporting in Table 2.1 of the reporting template.

4.5 charging methods

APA has separately disclosed charges under different charging methods in accordance with the Guideline.

Weighted average prices are classified under the postage stamp charging method where underlying contractual prices do not vary in respect of the distance gas travels on the pipeline.

Weighted average prices are classified under zonal-based charging method where charges vary depending on the location of Receipts and Deliveries made, but are not based on a dollar per GJ per kilometre charging method.

The distance-based charging method has been used where prices to customers are expressed as, or are derived from, a dollar per GJ per kilometre basis. Major delivery points are then identified as those with more than two customers taking gas at that location. All other locations are reported under "Other Delivery Points" in Table 5.1 of the reporting template.

Some customers using the bidirectional Moomba Sydney Pipeline pay prices determined by distance between receipt and delivery points. These are expressed under contract either in GJ Kilometres, or as a capacity charge calculated using GJ Kilometres as a base. In calculating a weighted average price for the Moomba Sydney Pipeline, APA found that the reporting template specified charging methods did not adequately accommodate this charging method. APA found that using the worksheet to generate weighted average prices resulted in weighted average prices that would not be meaningful for stakeholders.

For firm forward haul transportation services, and Interruptible or As Available transportation services provided to customers under the above described charging method, APA has published weighted average price information in addition to that required in the reporting template. The additional information includes the calculation of the weighted average price paid by customers on the Moomba Sydney Pipeline on a GJ Kilometre basis, accompanied by a table of distances between major delivery points to assist stakeholders to calculate the weighted average transportation price between these locations.

APA considers that this additional reporting complies the intent of Part 23 of the Rules, and provides meaningful information to stakeholders on prices paid by customers for transportation services on the Moomba Sydney Pipeline.

4.5.1 *capacity and throughput charges*

Capacity based charges have been identified as those charges associated with a firm right to capacity, where the amount paid by the customer in a month does not vary with individual customer throughput within the contractual bounds specified under the firm capacity right. Throughput based charges are identified as those where the amount paid by the customer in a month varies with individual customer throughput.

4.6 exempt services

Pursuant to Rule 556(3), service providers are not required to publish weighted average price information for a pipeline service if:

- The pipeline service was provided, directly or indirectly, to no more than two users of the non-scheme pipeline; and
- The service provider gives notice to the AER at least 20 business days before the date required for publication certifying this.

These provisions are intended to maintain the confidentiality of customers on the pipeline. APA has notified the AER of those services that are exempt from reporting, and listed those services in Table 5.1.1 of the reporting template.

In accordance with the Guideline, APA has not reported revenue in respect of exempt services against the relevant service category in Table 5.1. Instead, revenue associated with exempt services is aggregated and reported under "Total exempt services" in Table 5.1.