



FINAL DECISION
Roma to Brisbane Gas Pipeline
Access Arrangement
2017-22

Attachment 1 – Services
covered by the access
arrangement

November 2017

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CPI	consumer price index
DRP	debt risk premium
ECM	(Opex) Efficiency Carryover Mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	Value of Imputation Credits
MRP	market risk premium
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STTM	Short Term Trading Market
TAB	Tax asset base
UAFG	Unaccounted for gas
WACC	weighted average cost of capital
WPI	Wage Price Index

1 Services covered by the access arrangement

Gas transmission pipelines that are subject to full regulation are regulated by establishing reference services and tariffs and other terms and conditions on which that service will be offered on an ex ante basis. This can form the foundation for negotiations between pipeline operators and users (otherwise referred to as shippers) seeking access to the reference service or a similar service.

Under the regulatory framework set out in the National Gas Law (NGL) and National Gas Rules (NGR), pipeline operators may also offer other non-reference services (negotiated services). While these services are not subject to regulation under the access arrangement, we can be called upon to determine the tariff and other conditions of access to these services if an access dispute arises.¹

The distinction between reference and non-reference services is reflected in the requirements for an access arrangement, which must:²

- describe the pipeline services the service provider proposes to offer to provide by means of the pipeline, and
- specify the reference services and for each service, specify the reference tariff and the other terms and conditions on which the reference service will be provided.

An access arrangement must specify as a reference service at least one pipeline service that is likely to be sought by a significant part of the market. The NGR also allows us to specify other pipeline services that meet the criteria in rule 101.³

The NGR also provides for non-reference services to be classified as rebateable services, if there is substantial uncertainty about the demand for, or the revenue to be generated from, the services, and the market for the services are substantially different from the market for the reference service.⁴ If a service is classified as such, the costs associated with the service can, in whole or in part, be included in the calculation of the reference tariff, if an appropriate portion of the revenue derived from sales of this service is returned to reference service users through a rebate or refund.⁵

Further detail on the relationship between reference services, rebateable services and other non-reference services can be found in Figure 1-1. Although not shown in this figure, it is worth noting that the price of rebateable services is subject to negotiation between pipeline operators and shippers. We will therefore only have a role in determining the price of these services if the access dispute provisions are triggered.

¹ NGL, Chapter 6.

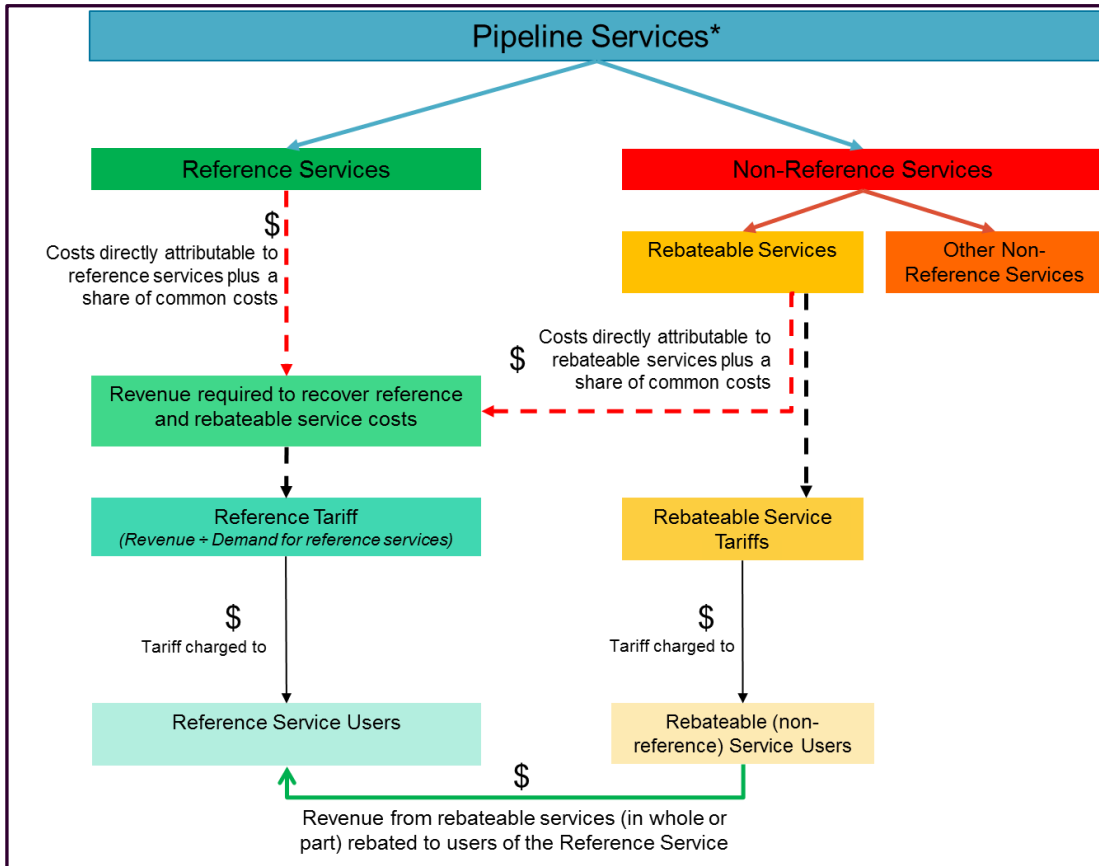
² NGR, r. 48.

³ NGR, r. 101.

⁴ NGR, r. 93(4).

⁵ NGR, r. 93(2).

Figure 1-1: Interaction between reference, rebateable and other non-reference services



* The term 'pipeline service' is defined in the NGL as (a) a service provided by means of a pipeline, including (i) a haulage service (such as firm haulage, interruptible haulage, spot haulage and backhaul); and (ii) a service providing for, or facilitating, the interconnection of pipelines; and (b) a service ancillary to the provision of a service referred to in paragraph (a), but does not include the production, sale or purchase of natural gas or processable gas. These services are described at Appendix A to this Attachment.

1.1 Final decision

Our final decision on the reference services to be provided by APTPPL on the Roma to Brisbane Pipeline (RBP) over the 2017-22 access arrangement period is to approve APTPPL's revised proposal to:

- classify the Long Term Firm Service (LTFS) as a reference service - this aspect of APTPPL's revised proposal is consistent with our draft decision, which was that this service should be classified as a reference service because it satisfies the requirements in rule 101 of the NGR, is consistent with the Revenue and Pricing Principles (RPPs) and will promote the National Gas Objectivity (NGO),⁶ and
- not classify the Short Term Firm Service (STFS) as a reference service - this is also consistent with our draft decision, which was that the classification of this service

⁶ NGR, rr. 101(1)(b) and 101(2).

as a reference service would not be consistent with the RPPs or promote the NGO.⁷

In a similar manner to the draft decision, our final decision requires APTPPL's proposed access arrangement to be amended to define the following services as rebateable services:⁸

- park and loan services (provided on either a firm or interruptible basis)
- in-pipe trading services, and
- capacity trading services.

As required by the relevant provisions in the NGR, we are satisfied that there is a substantial degree of uncertainty around the demand for, or revenue to be generated from, these services and the markets for these services are substantially different from the markets for the reference services.⁹ We are also satisfied that classifying these services as rebateable services is consistent with the RPPs and will promote the NGO.

This final decision provides for the cost of providing these services to be included in the calculation of the LTFS reference tariff. APTPPL will, however, be required to rebate 70 per cent of the revenue it earns from the provision of these services to users of the reference service. Rather than requiring APTPPL to provide cash rebates to shippers, the rebate mechanism will form part of the reference tariff variation mechanism. The benefit of the rebate will therefore be passed onto shippers in the form of lower LTFS reference tariffs.

Further detail on the services described above can be found in Appendix A.

1.2 APTPPL's revised proposal

Following the comments in our draft decision, in its revised proposal, APTPPL did not define the STFS as a reference service. APTPPL proposed the adoption of a single reference service for the 2017-22 access arrangement period: the LTFS. The LTFS provides for the firm transportation of gas in an easterly or westerly direction for a term of three or more years, with the same tariff payable irrespective of the distance gas is transported (i.e. a postage stamp service).

While APTPPL revised its proposal in relation to reference services, it did not agree with our identified changes in relation to classifying park and loan services, in-pipe trading services and capacity trading services as rebateable services. APTPPL noted that:¹⁰

⁷ NGR, rr. 101(1)(b) and 101(2).

⁸ NGR, rr. 93(3) and 93(4).

⁹ NGR, rr. 93(3) and 93(4).

¹⁰ APTPPL also claimed that defining park and loan services as rebateable services would “pervert the reforms currently under development by the Gas Market Reform Group” because it would create a risk of “low-cost capacity hoarding”. Elaborating on this further, APTPPL claimed that if park and loan services were defined as rebateable services, it would allow users of the reference service to book all the available pipeline capacity for storage

- park and loan services were not in a substantially different market from the market for reference services as required by rule 93(4)(c),¹¹ and
- classifying these services in this manner would adversely affect its incentive to provide the services.¹²

APTPPL's view was that if we decided to classify these services as rebateable services, then we should treat the rebate in the same manner as a pass-through event in the reference tariff variation mechanism, rather than requiring a cash refund to be paid to shippers.^{13,14}

1.3 Stakeholder submissions

No submissions were received from stakeholders in response to our draft decision or to APTPPL's revised proposal.

1.4 AER's assessment approach

When assessing APTPPL's revised proposal, we have had regard to the relevant provisions in the NGR and the NGL.

1.4.1 Reference services

Rule 48 of the NGR states that an access arrangement must describe the pipeline services¹⁵ the service provider proposes to offer to provide by means of the pipeline and specify the reference services. Rule 101 further provides that:

services to 'hoard' capacity and to park a sufficient amount of gas on the day to avoid the capacity being included in the day-ahead auction. APTPPL added that in addition to preventing capacity from being subject to the auction, the hoarding shipper would receive a rebate of its costs of booking the capacity.

We have discussed the issues that APTPPL has raised with the GMRG. In short, the GMRG has informed us that the chain of events APTPPL has described does not present a realistic risk to the capacity trading reforms because any shipper that has a park and loan service would have to use all the capacity on the gas day to circumvent the day-ahead auction of contracted but un-nominated capacity. The GMRG also noted there would be market conduct rules in place to deal with gaming risks, such as the risk that shippers over-nominate relative to what they require to try and reduce the amount of capacity that is released in the auction. Based on this advice, we are satisfied that classifying park and loan services as rebateable services will not 'pervert' the GMRG's reforms.

As to APTPPL's suggestion that this would be a relatively low cost hoarding strategy for shippers, it is important to note that rebates will not be paid directly to the users of the rebateable services. They will instead be shared by users of the reference service.

¹¹ APTPPL, RBP revised AA submission, August 2017, p. 17.

¹² *ibid.*, pp. 17-18.

¹³ *ibid.*, p. 17.

¹⁴ APTPPL also noted that if we did not accept this approach we should rectify a number of errors it had found in the rebate formula that appeared in the draft decision.

¹⁵ The term 'pipeline service' is defined in the NGL as:

- (a) a service provided by means of a pipeline, including-
 - (i) a haulage service (such as firm haulage, interruptible haulage, spot haulage and backhaul); and

(1) A full access arrangement must specify as a reference service:

- (a) at least one pipeline service that is likely to be sought by a significant part of the market and
- (b) any other pipeline service that is likely to be sought by a significant part of the market and which the AER considers should be specified as a reference service.

(2) In deciding whether to specify a pipeline service as a reference service the AER must take into account the revenue and pricing principles.

The term “likely to be sought” is not defined in the NGL or NGR, but the notion of “likely” means at its lowest that there is a “real chance or possibility” that something will occur,¹⁶ and at its highest that it is “more probable than not” that an event will occur. The term “significant part of the market” is also not defined in the NGL or NGR. However, the ordinary construction of the word “significant” is something that is less onerous than the “majority”, and may mean no more than that the part of the market seeking the service must not be “insignificant”.

1.4.2 Non-reference services and rebateable services

In principle, the costs to be recovered from the users of reference services should exclude the costs of providing non-reference services.¹⁷ However, rule 93(3) allows us to allocate the costs of providing ‘rebateable services’, in whole or in part, to reference services if:

- we are satisfied that the service provider will apply an appropriate portion of the revenue generated from the sale of rebateable services to provide price rebates (or refunds) to the users of reference services, and
- any other conditions determined by us are satisfied.

Rule 93(4) provides that a service can be classified as a rebateable service if the service is not a reference service and if:

- substantial uncertainty exists concerning the extent of the demand for the service or the revenue to be generated from the service, and
- the market for the service is substantially different from the market for any reference service.

In considering whether a service is likely to satisfy the criteria, we will have regard to:

-
- (ii) a service providing for, or facilitating, the interconnection of pipelines; and
 - (b) a service ancillary to the provision of a service referred to in paragraph (a), but does not include the production, sale or purchase of natural gas or processable gas.

¹⁶ See Deane J in *Tillmanns Butcheries Pty Ltd v The Australian Meat Industries Employees Union* (1979) ATPR 40-138 at p. 18,5000

¹⁷ NGR, r. 93(1)-(2).

- the nature of the demand for the service and the extent to which it is feasible to develop a forecast that represents the best forecast or estimate possible in the circumstances as required by rule 74, and
- market definition principles to determine whether the market in which the service is traded is different from the market for the reference service.

The NGL and the NGR do not define the term ‘market’ for the purposes of rule 93, or specify how we are to determine whether the market for the service is substantially different from the market for any reference service. In the absence of specific criteria, we consider competition law market definition principles provide the appropriate analytical framework. Box 1.1 provides an overview of the principles we have employed in this context.

The rebateable service provisions in the NGR largely mirror the provisions in the National Third Party Access Code for Natural Gas Pipeline Systems (the Code). The purpose of these was explained in the information paper that accompanied the exposure draft of the Code, which is reproduced below:¹⁸

The general principle is that a Reference Tariff should be structured on the basis of only the costs that are properly allocated to that Reference Service. This principle may be difficult to apply in practice if the Service Provider expects to sell other Services that would share common assets, but where the volume and/or value of the other Services are difficult to forecast. These Services are termed Rebateable Services and may include interruptible and backhaul Services, where both the availability of the Service and the demand for such Services can be difficult to predict.

The difficulty arises because the uncertainty over the future volume and/or value of sales of the Rebateable Services makes it difficult to determine the amount of costs that should be allocated to those Services. This in turn makes it hard to determine the residual of costs that should be allocated to the Reference Service.

Section A (28)(b) provides an exception to the general cost allocation principle to handle Rebateable Services. It permits all of the costs that could theoretically be allocated to the Rebateable Service to be allocated to the Reference Service, provided that part or all of the revenue from sales of the Rebateable Services is rebated to the Users of the Reference Service. It would be expected that a portion of this revenue would be retained by the Service Provider to provide it with the incentive to offer these Services (which is an Incentive Mechanism).

¹⁸ Gas Reform Task Force, *Information Paper to Accompany the Exposure Draft of the National Third Party Access Code for Natural Gas Pipeline Systems*, 8 August 1996, pp. 67-68.

Box 1.1: Determining the market for the purpose of rule 93(4)

In competition law the delineation of markets hinges primarily on the concept of substitutability. The market should include the range of activities and the geographic area within which, if given a sufficient incentive:

- buyers can switch to a substantial extent from one product to another and/or from one source of supply to another ('demand-side' substitution); and/or
- sellers can switch to a substantial extent from one production plan to another, or to an alternative location ('supply-side' substitution).

The emphasis placed on substitutability can be seen in the Trade Practices Tribunal's decision in *Re Queensland Cooperative Milling Associates Ltd*. In this case the Tribunal referred to a 'market' as comprising:¹⁹

"...the area of close competition between firms or, putting it a little differently, the field of rivalry between them.... Within the bounds of a market there is substitution - substitution between one product and another, and between one source of supply and another, in response to changing prices. So a market is the field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive...

It is the possibilities of such substitution which sets the limits upon a firm's ability to "give less and charge more". Accordingly, in determining the outer boundaries of the market we ask a simple but fundamental question: If the firm were to 'give less and charge more' would there be, to put the matter colloquially, much of a reaction?"

Properly defined, a market should encompass the range of products and geographic areas between which there can be strong substitution by buyers and/or suppliers.

In considering whether a non-reference service could be classified as a rebateable service we have focused on the potential for consumers to switch (i.e. on demand-side substitution). The other potential avenue of substitution – 'supply-side' substitution – is not relevant here because there are no other suppliers that can perform this role, given that the RBP is a monopoly.

The issue of whether a non-reference service is in a substantially different market from any reference service is likely to be quite straightforward when the service in question provides a different function to the reference services, and the viable sources of supply are relatively clear. For example, consider connection services. A user would be unlikely to respond to an increase in the price of a connection by buying the reference services (e.g. the STFS or LTFS), because they serve different functions. In this case the services could be viewed as being in substantially different markets.

Finally, it is worth noting that while some products are purchased as part of an overall bundle, this does not mean they are all in the same market. For example, tyres and petrol are bought by the same customers, but are not substitutes (i.e. buying more petrol will not fix a flat tyre). Likewise, the fact that many users buy a collection of pipeline services (e.g. firm transportation, park and loan services, ancillary services) does not imply they are all part of the same market.

¹⁹ *Re Queensland Cooperative Milling Associates Ltd* (1976) ATPR 40-012 at 17,247.

While the rebateable service provisions in the NGR have not been widely used to date, the equivalent provisions in the Code were drawn on numerous times by the Australian Competition and Consumer Commission (ACCC), the Economic Regulation Authority (ERA) and its predecessor, Ofgar. For example, rebateable services were used in:

- the ACCC's 2001 final decision on the Moomba to Adelaide Pipeline System, which defined an interruptible transportation service as a rebateable service²⁰
- the ACCC's 2002 final decision on the Amadeus Basin to Darwin Pipeline, which also defined an interruptible transportation service as a rebateable service,²¹
- the ERA's 2005 final decision on the Goldfields Gas Pipeline, which identified penalty charges as rebateable services,²² and

Ofgar's 2003 final decision on the Dampier to Bunbury Pipeline, which defined all non-reference services, including park and loan, seasonal and secondary market services, and penalty charges as rebateable services.²³

1.4.3 NGO and RPPs

The reference service and rebateable service provisions in the NGR are full discretion provisions. When exercising this type of discretion we are required to do so in a manner that is likely to contribute to the achievement of the NGO,²⁴ which is to:²⁵

...promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

We may also take into account the RPPs if we consider it appropriate to do so, or if directed to in the NGR. Relevantly, the RPPs state that a service provider should:

- have a reasonable opportunity to recover at least the efficient costs of providing reference services,²⁶ and
- be provided with effective incentives to promote economic efficiency with respect to reference services, including efficient investment, efficient provision of services and efficient use of the pipeline.²⁷

²⁰ ACCC, *Final Decision: Access Arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System*, 12 September 2001, p. ix.

²¹ ACCC, *Final Decision: Access Arrangement proposed by NT Gas Pty Ltd for the Amadeus Basin to Darwin Pipeline*, 4 December 2002, p. 136.

²² ERA, *Further Final Decision and Final Approval on the Proposed Access Arrangement for the GGP*, 14 July 2005, p. 26.

²³ Ofgar, *Final Decision: Proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, 23 May 2003, p. 136.

²⁴ NGL, s. 28(1)(a).

²⁵ NGL, s. 23.

²⁶ NGL, s. 24(2).

²⁷ NGL, s. 24(3).

The RPPs also require us to have regard to the economic costs and risks of the potential for both under or over investment by a service provider, and under or over utilisation by pipeline users.²⁸

1.5 Reasons for final decision

Our draft decision on the specification of reference services and rebateable services, tariff structures and the rebate mechanism were dealt with in attachments 1 and 10. Given the interrelationships between these sections we have decided, for the purposes of the final decision, to combine the discussion that was previously in these draft attachments into this final attachment.

1.5.1 Reference services

For the reasons set out in our draft decision, we are satisfied that the LTFS proposed by APTPPL is likely to be sought by a significant part of the market over the access arrangement period²⁹ and that its specification as a reference service is consistent with the RPPs and likely to promote the NGO. Our final decision is therefore to approve the specification of the LTFS as a reference service.

We also approve APTPPL's revised proposal not to define the STFS as a reference service, because, as noted in our draft decision, we are not satisfied that its specification as a reference service is consistent with the RPPs or the NGO.³⁰ It also appears unnecessary given the reforms that are underway to facilitate more capacity trading and competition between pipeline operators and shippers for the provision of short-term firm transportation services.

As to the tariff structure that will apply to the LTFS service, while we can see merit in moving to a more cost reflective tariff structure (e.g. zonal tariffs), we are concerned that doing so in this access arrangement period may place additional financial pressure on some users of the RBP. It may also exacerbate what is already a financially

²⁸ NGL. ss. 24(6)-(7).

²⁹ Based on the forecast demand data provided by APTPPL it would appear that the demand for this service will account for 58-78 per cent of the demand over the access arrangement period.

³⁰ The reasons for this are two-fold. First, it is not clear that defining the STFS as a reference service will benefit shippers, given that shippers have been able to successfully negotiate shorter-term contracts. Second, it would appear from the submissions made by stakeholders that the price APTPPL is proposing to charge for this service is higher than the price most shippers are prepared to pay for this service. There is a risk therefore that defining the STFS as a reference service and pricing it in the manner APTPPL has proposed could:

(a) result in lower than efficient utilisation of the RBP

(b) act as a potential impediment to the supply of gas to gas fired generators and other domestic customers that utilise the RBP and are reliant on short-term contracts, and

(c) adversely affect the development of liquidity in the Wallumbilla GSH by increasing the financial barriers to trade in this market, contrary to the COAG Energy Council's reform priorities and Vision for the gas market.

Apart from being inconsistent with the principles embodied in sections 24(2), 24(3)(c) and 24(7), these outcomes are also contrary to the long term interests of consumers of natural gas, from both a pricing and a security of supply perspective.

challenging environment for many gas users, which could have longer-term consequences for consumers of natural gas and the efficient use of the pipeline, contrary to the NGO. Our final decision is therefore to retain the existing postage stamp tariff structure.

As noted in our draft decision, our position on this issue was finely balanced and we are likely to revisit it in the next access arrangement review. We would therefore encourage APTPPL to work with shippers to determine whether there is value in moving to a more cost reflective tariff structure in the next access arrangement period.

1.5.2 Rebateable services

Rule 93 of the NGR provides us with two options for dealing with the costs associated with non-reference services. The first option, which is reflected in rule 93(2) is to exclude the costs from the allocation of costs to the reference service. The second option, reflected in rule 93(3), is to permit the allocation of these costs (in whole or in part) to the reference service, but require:

- an appropriate portion of the revenue from the sale of these services to be applied to users of reference services (through either a price rebate or refund), and
- any other condition we determine to be satisfied.

Prior to releasing the draft decision, APTPPL advised that the first of these options could not be applied to park, loan, capacity trading and in-pipe trading services because the demand for these services was uncertain.³¹ We therefore considered in our draft decision whether these services could be classified as reference or rebateable services. In doing so, we had regard to rule 93(4), which states that a service can be classified as a rebateable service if the service is not a reference service and if:

- substantial uncertainty exists concerning the extent of the demand for the service or the revenue to be generated from the service, and
- the market for the service is substantially different from the market for any reference service.

In short, in the draft decision we found that capacity trading, in-pipe trading, park and loan services satisfied the requirements in rule 93(4). We decided therefore to classify these services as rebateable services and to require 70-90 per cent of the revenue generated from the provision of these services to be rebated to users of firm transportation services through a cash rebate.

As noted in section 1.2, APTPPL has questioned our draft finding that park and loan services satisfy rule 93(4) of the NGR and has also raised some concerns about the level of the rebate and the rebate mechanism. These issues are discussed, in turn, below.

³¹ APTPPL Response to information request IR#23, 13 January 2017, p. 23.

1.5.2.1 Compliance with rule 93(4)

Park and loan services

In our draft decision, we concluded that park and loan services (provided on either a firm or interruptible basis) should be classified as rebateable services because:

- there is a substantial amount of uncertainty surrounding the demand for, and revenue to be generated from, park and loan services (provided on either a firm or interruptible basis),^{32,33} and
- the market for park and loan services is substantially different from the market for the LTFS.³⁴

In its response to the draft decision, APTPPL questioned our draft finding that the market for park and loan services is substantially different from the market for the LTFS. We have considered the issues raised by APTPPL below.

In a competition law context, the term ‘market’, properly defined, should encompass the range of products and geographic areas between which there can be strong substitution (see Box 1.1). Any assessment of whether park and loan services are in the same market as the suite of reference services outlined above, therefore requires consideration to be given to whether the park and loan services are close substitutes for the reference services. In simple terms, this requires consideration to be given to whether users are likely to switch from park and loan services to the reference service (or vice versa) in response to a price increase of, say 5-10 per cent.

As noted in Appendix A, park services allow users to store gas on the pipeline up to a specified level by injecting more gas on a day than they take out. Loan services, on the other hand, allow users to take out more gas on a day than they inject, up to a specified level. These services may be provided on either a firm or interruptible basis.

As this description highlights, park and loan services serve a different function to a firm transportation services. Users that require the flexibility provided by park and loan services would not therefore be in a position to switch to a transportation service in response to a 5-10 per cent increase in the price of park and loan services. Similarly, users that need to transport gas along the RBP on a firm basis using the LTFS would not be in a position to switch to park and loan services in response to a similar increase in the price of the reference services.

³² This finding was based on information provided by APTPPL. See for example, APTPPL, Response to Information request IR#23, 13 January 2017, p. 23.

³³ In the draft decision we noted that the reasons for the uncertainty are two-fold. First, it appears that a number of users are purchasing park and loan services on an ‘as required’ and interruptible basis. Second, the services are primarily being sought by users that require greater flexibility to deal with changes in operational conditions (e.g. a LNG facility going down), or changes in the electricity and gas markets, which are difficult to predict.

³⁴ This finding was based on the application of the market definition principles set out in Box 1.1.

It was on this basis that we concluded that park and loan services are not substitutes for the LTFS reference service and could be considered as being in substantially different markets. We also noted in this context that this view was consistent with:

- the view that Ofgar, reached in 2003 when it decided that park and loan services on the Dampier to Bunbury Pipeline should be classified as rebateable services³⁵
- the view that the AEMC expressed in its reference service and rebateable service rule change process, which is that park and loan services “could be considered as rebateable services”,^{36,37} and
- the ACCC's finding in the APA Group – proposed acquisition of Hastings Diversified Utilities Fund competition assessment, which was that there were two markets relevant to the assessment of the competitive impact of the proposed acquisition, one of which was the market for transmission services and the second was the market for ancillary services, which included park and loan services.

In contrast to the position we reached on this issue, APTPPL has suggested that park and loan services and the LTFS could be considered both demand- and supply-side substitutes. Specifically, APTPPL has suggested that:³⁸

- on the demand side, a shipper with a park and loan service could "create a synthetic transportation service" by injecting gas into, and withdrawing gas from its park and loan storage account on same day (or over time), and
- on the supply side, the provision of park and loan services sterilises capacity that can otherwise be used for transportation services and are therefore viewed as substitutes by service providers.

On the first of these matters, we understand that park and loan services (as they are currently offered in the market), do not, in and of themselves, provide for gas to be injected into the pipeline, transported along the pipeline, or withdrawn from the pipeline. They must be coupled with a transportation service. This point was made clearly by pipeline operators and other market participants involved in the GMRG's capacity trading reform consultation process³⁹ and is also reflected in APA's standard transportation agreement.⁴⁰ The implication of this is that while park and loan services and transportation services could be considered complements, they could not be considered substitutes for transportation services, such as the LTFS.

³⁵ Ofgar, *Final Decision: Proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, 23 May 2003, p. 136.

³⁶ AEMC, *Rule Determination: National Gas Amendment (reference service and rebateable service definitions) Rule 2012*, 1 November 2012, p. 54.

³⁷ ACCC, *Public Competition Assessment – APA Group – proposed acquisition of Hastings Diversified Utilities Fund*, 14 February 2013.

³⁸ APTPPL, RBP revised AA submission, August 2017, pp. 20-21.

³⁹ See GMRG, Standardisation Project Team Meeting No. 8 Minutes, 20 June 2017, p. 4 and GMRG, Draft Operational GTA Code, September 2017, p. 18.

⁴⁰ See APA, Standard Gas Transportation Agreement, cl. 2.7-2.8.

On the second matter, we agree with APTPPL that from a service provider's perspective park and loan services and transportation services may be considered substitutable (i.e. because they both utilise capacity on the pipeline). However, in a market definition context, the term "supply-side substitution" refers to situations where service providers that are not currently offering a service could, in response to a price increase of, say 5-10 per cent, profitably alter their facility to supply an effective substitute for the product within a relatively short period.⁴¹ As noted in Box 1.1, there are currently no other suppliers that can perform this role, given the RBP is a monopoly. Supply-side substitution is not therefore relevant in this context.

Having considered the issues raised by APTPPL, we remain of the view that park and loan services (provided on a firm or interruptible basis) satisfy the requirements of rule 93(4) and should therefore be classified as rebateable services. In our view, defining these services as rebateable services is consistent with the RPPs, because it will:

- provide APTPPL with an opportunity to recover its efficient costs (i.e. because the rebate is only payable if revenue is generated)
- provide APTPPL with effective incentives to promote economic efficiency (i.e. because the charge payable for the reference service once the rebate is taken into account will be more cost-reflective and because allowing APTPPL to retain a portion of the revenue will provide it with an incentive to respond to user needs)
- reduce the economic costs and risks associated with under or over investment in the pipeline (i.e. because the charge payable for the reference service after the rebate is taken into account will be more cost-reflective), and
- reduce the economic costs and risks associated with under or over utilisation of the pipeline (i.e. because the overall charge payable for the reference service after the rebate is taken into account will be more cost-reflective).

Classifying these services as rebateable services and allowing the revenue generated from their sale to be shared between APTPPL and users of the reference service can also be expected to promote the NGO because it will:

- result in the overall charges payable for reference services better reflecting the cost of providing these services,⁴² which will, in turn, promote the efficient use of the pipeline, as well as the efficient operation of and investment in the pipeline, and

⁴¹ See for example, ACCC, Merger Guidelines, November 2008, p. 18 and UK Office of Fair Trading, Market definition - Understanding competition law, December 2004, pp. 12-14.

⁴² If the rebate was not paid and the cost of providing these services was included in the calculation of the reference tariff then it would result in users of the reference service paying more than the efficient cost of providing the service, which will give rise to allocative, productive and dynamic inefficiencies. For example, if the price payable for reference services includes the cost of providing other services then from a user's perspective it will result in underutilisation of the reference service. From APTPPL's perspective, the higher prices may result in inefficiencies in the operation of the pipeline and over investment in the pipeline.

- provide APTPPL with an effective incentive to continue to develop new services and respond to the changing needs of users, which is in the long-term interests of consumers of natural gas.

Our final decision is therefore to classify park and loan services (provided on either a firm or interruptible basis) as rebateable services and to permit the cost of providing these services to be included in the LTFS reference tariff.

In-pipe trading services and capacity trading services

In contrast to park and loan services, APTPPL did not raise any specific concerns about our finding in the draft decision that:

- there is a substantial amount of uncertainty surrounding the demand for and revenue to be generated from in-pipe trading and capacity trading services,⁴³ and
- the markets for in-pipe trading services and capacity trading services are substantially different from the market for the LTFS.⁴⁴

We therefore remain of the view that these services satisfy rule 93(4) of the NGR and should be classified as rebateable services. In reaching this view we have had regard to the NGO and RPPs. For the same reasons as those set out in the preceding section, we are of the view that classifying these services as rebateable services and allowing APTPPL to retain a portion of the revenue is consistent with the RPPs and will promote the NGO.

Our final decision is therefore to classify capacity trading and in-pipe trading services as rebateable services and to permit the cost of providing these services to be included in the LTFS reference tariff.

1.5.2.2 Rebate level and mechanism

Rule 93(3) of the NGR allows us to allocate the costs of providing non reference services, in whole or part, to the reference services if we are satisfied that:

- the service provider will apply an appropriate portion of the revenue generated from the sale of rebateable services to provide price rebates (or refunds) to the users of reference services, and

⁴³ In the draft decision we noted that this uncertainty reflects the underlying nature of these services, with both services only being required by users when a gas trade occurs and title to the gas needs to change within the pipeline, or if a capacity trade occurs and is given effect through an operational transfer with APTPPL.

⁴⁴ This finding was based on the application of the market definition principles set out in Box 1.1. In short, we found that in-pipe trading and capacity trading services perform a very different function to the LTFS and as a consequence users seeking the services provided by these services would not be in a position to switch to the LTFS transportation services in response to a 5-10 per cent increase in price of these ancillary services. Similarly, users that want to transport gas along the RBP using the LTFS would not be in a position to switch to in-pipe trading or capacity trading services in response to an increase in the price of the reference services. We therefore concluded that the services in-pipe trading services and capacity trading services are not substitutes for the LTFS and should be viewed as being in substantially different markets to the market for the reference services.

- any other conditions determined by the AER are satisfied.

This requires us to decide:

- what share of the revenue from rebateable services should be rebated to shippers, and
- the mechanism by which the rebate will be provided to shippers.

Our final decision on these two issues is set out below.

Share of revenue to be rebated to customers

The NGR does not set out any rules that we must apply when determining the share of the revenue that a service provider generates from the provision of rebateable services that is to be returned to customers. However, given a service provider is likely to incur some incremental costs when providing these services, we think it is appropriate that it keep some of the revenue generated so that it has a reasonable opportunity to recover at least the efficient costs associated with providing the services. We also think it is appropriate to allow service providers to retain a share of the revenue so that it has an effective incentive to respond to customer needs.

In the draft decision, we proposed a 70:30 benefit sharing ratio for in-pipe trading and capacity trading services and a 90:10 benefit sharing ratio for park and loan services. A lower sharing ratio for shippers was proposed for in-pipe trades and capacity trading services because we thought APTPPL should receive a greater reward for developing more innovative services.

Having reflected on this further, and considering comments from APTPPL, we think that trying to draw a distinction between innovative and less innovative services and ascribing different sharing ratios to each may be somewhat artificial. We have therefore decided to apply the same sharing ratio to all of these services and to employ the same sharing ratio that we use in other incentive mechanisms, which is a 70:30 sharing ratio. Under this sharing ratio, APTPPL will be able to retain 30 per cent of the revenue it generates from the provision of rebateable services and the remaining 70 per cent will be passed through to reference service users. In our view, the adoption of this sharing ratio provides a reasonable balance between:

- promoting the efficient use of the pipeline (e.g. by ensuring the prices charged for reference services are relatively cost reflective), and
- providing effective incentives to service providers to promote economic efficiency in relation to the services it provides (e.g. by rewarding APTPPL for responding to customer needs), which will, in turn, promote the efficient provision of pipeline services and efficient investment in the pipeline over the longer term.

It should also provide APTPPL with a reasonable opportunity to recover the incremental costs it incurs when providing these services, which APTPPL has confirmed are relatively small.⁴⁵

We are therefore satisfied that this sharing ratio is consistent with the RPPs and NGO.

Process for providing rebates to customers

In a similar manner to the sharing ratio, the NGR do not prescribe the process or mechanism to be used to provide the rebate to customers. We have also not previously had occasion to consider what arrangements should be put in place to return the relevant portion of revenue to users under rule 93(3). Other regulators considering this matter have largely adopted the rebate mechanisms put forward by service providers without needing to engage with the merits of various options.

In our draft decision, we proposed to share the rebate revenue between all users of firm transportation services on the RBP and to require APTPPL to pay rebates directly to these users. Having considered the issues raised by APTPPL about this proposal, we have decided to adopt an alternative rebate mechanism. Specifically, we have decided that the rebate mechanism should be included in the reference tariff variation mechanism, rather than requiring cash rebates to be paid.

This rebate mechanism will operate in a similar manner to a cost pass-through mechanism, with 70 per cent of the revenue generated from the sale of rebateable services in year t deducted from the annual revenue requirement in year $t+2$. The formula is set out Figure 1-3. The rebate mechanism will not, however, be subject to the materiality threshold that is typically applied to cost pass-through events as suggested by APTPPL, because the application of such a threshold would result in shippers receiving less than 70 per cent of the revenue earned from the provision of these services. This would distort the effect of the rebate.

In effect, the adoption of this rebate mechanism means that the benefit of any rebates will be passed onto users of the reference service in the form of a lower LTFS reference tariff during the access arrangement period.⁴⁶ Apart from benefiting reference service users, the lower LTFS reference tariff should benefit other users that are negotiating similar services over the access arrangement period. We are therefore satisfied that this approach is consistent with the RPPs and will promote the NGO.

1.6 Reference tariff variation mechanism

This section sets out the price control formulae that will apply to APTPPL during the 2017–22 access arrangement in respect of the Roma to Brisbane Pipeline.

Reference tariff variation mechanism

⁴⁵ Email from APTPPL to the AER, dated 25 September 2017.

⁴⁶ APTPPL has confirmed that the reduced tariff will apply to shippers paying the reference tariff. Email from APTPPL to the AER, dated 20 October 2017.

Tariffs applicable to the Roma to Brisbane Pipeline will be adjusted according to the formula in Figure 1-2.

Figure 1-2: Final decision reference tariff variation mechanism

$$RT_n = RT_{n-1} \times \left[1 + \frac{CPI_{n-1} - CPI_{n-2}}{CPI_{n-2}} \right] \times (1 - X) \times (1 - RB_n)$$

where:

RT_n is:

the long term firm service tariff in year n.

n is:

the financial year in which the adjusted long term firm service is to be applied.

RT_{n-1} is:

the long term firm service tariff in year n-1.

CPI is:

the consumer price index (All Groups–Weighted Average Eight Capital Cities) published quarterly by the Australian Bureau of Statistics. If the Australian Bureau of Statistics ceases to publish the quarterly value of that index, then CPI means the quarterly values of another Index which Service Provider reasonably determines most closely approximates that Index.

CPI_{n-1} is:

the Consumer Price Index for the March quarter applying in year n-1. For tariffs in year 2018–19, n-1 is March quarter 2018.

CPI_{n-2} is:

the Consumer Price Index for the March quarter applying in the year n-2. For tariffs in year 2018–19, n-2 is the March quarter 2017.

X is:

the X factor for each financial year of the 2017–22 access arrangement period as determined in the PTRM as approved in the AER's final decision, and annually revised for the changes in the return on debt.

RB_n is:

the rebateable services factor expressed as a percentage and as calculated in Figure 1-3.

Rebateable services adjustment factor formula

This final decision requires that APTPPL rebates a portion (70 per cent) of revenue it earns from rebateable services to shippers who are taking the reference services during the calendar year.

The rebate mechanism formula for each of park and loan, in-pipe trading and capacity trading services is set out in Figure 1-3.

Figure 1-3: Final decision rebateable services mechanism formula

$$RB_n = \frac{(1 + RB'_n)}{(1 + RB'_{n-1})} - 1$$

where:

RB'_{n-1} is:

zero when financial year n-1 refers to financial year 2017–18

the value of RB'_n determined in the financial year n-1 for all other years in the access arrangement period

and

$$RB'_n = 0.70 \left[\frac{R_{n-1}(1 + WACC_n)}{(1 + CPI_n)(1 - X_t) \sum_{i=1}^n \sum_{j=1}^m RT_{n-1}q_{n-2}} \right]$$

Where:

R_{n-1} is:

any rebateable service revenue amount earned by APTPPL in whole or in part, in financial year n-1 for services classified as rebateable services.

$RT_{n-1}q_{n-2}$ is:

the estimated revenue from reference service services in the year n-1.

$WACC_n$ is:

the approved nominal weighted average cost of capital (WACC) for the relevant regulatory year using the following method:

the approved nominal weighted average cost of capital (WACC) for the relevant regulatory year using the following method:

$$\text{NominalVanillaWACC}_n = ((1 + \text{realVanillaWACC}_n) \times (1 + \text{CPI}_n))$$

where the *realVanillaWACC_n* is as set out in the final decision PTRM and updated annually.

X_n is:

the value of X as set out in the final decision PTRM and updated annually.

0.70 is:

the sharing ratio between APTPPL and shippers who are taking the reference service.

Reporting of rebateable services revenue

As part of its annual tariff variation notice for tariffs commencing each 1 January, APTPPL will be required to report on the revenues it has earned during the prior calendar year in respect of:

- park and loan services (provided on either a firm or interruptible basis)
- in-pipe trading services
- capacity trading services.

on the Roma to Brisbane Pipeline 2017–22. The value of those revenues will then be input into the rebateable services adjustment factor formula.

1.7 Required amendments

To give effect to our final decision a number of amendments will need to be made to the access arrangement, the terms and conditions and pro-forma transportation agreement. The table below sets out the changes that will be required to APTPPL's access arrangement.

A Transmission pipeline services

The box below provides an overview of a number of the services that are referred to in this attachment.

Box A.1: Services provided by transmission pipelines

Transportation services

Transmission pipelines operating on a point-to-point basis usually offer:

- Forward haul services, which provide for the transportation of gas from a receipt point to a delivery point in the direction of the predominant flow of gas.
- Backhaul services, which involve the 'virtual transportation' of gas in the opposite direction to the predominant flow of gas. The term 'virtual transportation' is used in this context, because a backhaul service does not involve the physical transportation of gas. It instead involves a physical swap of gas at the point at which it is supplied into the pipeline for an equivalent amount of gas at the backhaul delivery point. To be able to provide this service, the volume of gas being backhauled must be less than, or equal to, the volume of gas to be transported on a forward haul basis, which is why it is offered on an as available or interruptible basis.

If a pipeline can physically flow in both directions across its full length (i.e. a bi-directional pipeline), then it will usually offer a single transportation service, which enables gas to be transported in either direction.

Forward haul and bi-directional services can be provided on:

- a firm basis – a firm service allows users to transport gas up to their maximum daily and hourly capacity reservation. The priority accorded to this service in terms of scheduling is higher than any other services and is the last service to be curtailed.
- an as available basis – an as available service allows users to transport gas without reserving and having to pay for capacity on a daily basis, if there is spare capacity available. The priority accorded to this service is lower than that accorded to a firm transportation service in terms of scheduling and is curtailed before firm services.
- an interruptible basis – an interruptible service also allows a buyer to transport gas without reserving and paying for capacity on a daily basis. However, the priority accorded to this service in terms of scheduling is usually lower than as available services and is usually curtailed ahead of both as available and firm services.

Storage services

Transmission pipelines may also be used to provide the following storage related services:

- Park services, which allow users to inject more gas into a pipeline than they take out on a particular day, up to a specified level and to store that gas in the pipeline. The additional gas supplied into the pipeline may be withdrawn by users at a later point in time, subject to constraints in their transportation contracts.
- Park and loan services, which in addition to allowing users to store gas on the pipeline, also allows users to inject less gas than it takes on any given day (a loan), up to a specified level.

Ancillary services

Transmission pipelines can be used to provide a range of ancillary services, including:

- Renomination services, which enable users to amend their nominations after the nomination cut-off time, which is typically the afternoon before the gas day.
- In-pipe trade services, which enable gas to be traded between users at a notional point on the pipeline and allow users to manage their imbalances.
- Capacity trading services, which enables capacity traded between users to be managed by the pipeline operator rather than by the users (e.g. the user purchasing the capacity can make nominations directly to the pipeline rather than through the user selling the capacity). Note that the AEMC has recommended, as part of its capacity trading related reforms, that any trades carried out through the capacity trading exchange and day-ahead auction be given effect through this service. Pipeline operators will therefore have an effective monopoly on the provision of these services when the reform is implemented.