

# Amadeus Consumer Reference Group 2021- 26 access arrangement revision



Roundtable 3b. Total revenue, cost allocation and reference tariffs;  
other access arrangement issues  
4 June 2020 via Microsoft Teams

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# Agenda for today



Agenda item	Content	Timing
1	Welcome again Who's on the line House rules	5mins
2	Recap of previous roundtable	10mins
3	Total revenue, cost allocation and reference tariffs Questions?	25mins
4	Other policies: <ul style="list-style-type: none"><li>• Queuing policy</li><li>• Capacity trading</li><li>• Extension and expansion</li></ul> Questions?	10mins
5	Summing up and next steps	10mins

# Welcome & house rules



- **Introductions**
- **House rules**
  - The online format has been introduced due to COVID-19
  - This is intended be an open discussion between the reference group and APA
  - We welcome any issue or question about the access arrangement and its context
  - The main rule we propose is that the discussions during the roundtable are respectful
  - We are not intending to attribute any comments or questions to you or your organisation, unless requested.

What are we hoping to achieve?



## Reference tariffs, and other issues

- **In this roundtable meeting, we shall:**
  - explain our proposed reference tariffs for the Amadeus Gas Pipeline
  - briefly discuss a number of other access arrangement issues: reference tariff variation, queuing requirements, capacity trading, extension and expansion requirements.
- **We shall seek your feedback on these matters: as before, we shall provide opportunities for questions and discussion.**
- **By the end of the meeting, we will have presented to you our thinking on what we see as being the key issues in a proposed revised Access Arrangement for the Amadeus Gas Pipeline.**

## Proposed reference tariffs

		2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Firm service	\$/GJ MDQ	0.5369 (est.)	0.3672	0.3452	0.3237	0.3051	0.2868
Interruptible service	\$/GJ	n.a.	0.3672	0.3452	0.3237	0.3051	0.2868

- **Significantly – 31% – lower firm service tariff:**
  - lower total revenue for the period 2021-22 to 2025-26 (lower return on capital invested: capital base reduced by depreciation, rate of return down from 6.18% to 4.49%)
  - part of this lower total revenue is allocated to the provision of the interruptible service reference service
  - higher firm service capacity (145.0 TJ/d, as compared with approximately 105 TJ/d in the 2016 tariff calculation).
- **In this meeting, we explain how we arrived at these tariffs.**

# Key take-outs from roundtable 3a



## Brief recap

- **At roundtable meeting 3a we explained:**
  - our proposed determination of total revenue - the forecast total cost of providing services - for the Amadeus Gas Pipeline
  - the basis of our forecasting of the demand for services provided using the pipeline
- **Total revenue and forecast demand are used to determine reference tariffs for reference services: at the last roundtable meeting, we said we would discuss our approach to reference tariff determination, and our proposed tariffs, at the next meeting.**
- **The revised proposed AGP Access Arrangement is to include two reference services:**
  - firm service - the single reference service of the current Access Arrangement
  - interruptible service - required by the AER's December 2019 reference service proposal decision for the AGP.
- **Terms and conditions for an interruptible service reference service were drafted following your advice that the access arrangement interruptible service should be similar to the interruptible service in APA's standard gas transportation agreement; these draft terms and conditions were circulated prior to the last roundtable meeting.**



## Total revenue

- We have used the AER's Post-tax Revenue Model (the Gas Transmission Service Provider version released in April) to calculate total revenue for the access arrangement period (1 July 2021 to 30 June 2026).
- The key inputs to the Post-tax Revenue Model are:
  - Capital base at the beginning of the access arrangement period (1 July 2021)
  - Forecast CAPEX
  - Forecast OPEX
  - Rate of return on capital
- At previous roundtable meetings we explained our forecasts of CAPEX and OPEX, and the way in which we set the rate of return on capital (applying the binding rate of return instrument).
- We explained that we had determined the opening capital base – the capital base at 1 July 2021 – using the AER's Roll Forward Model (the Gas Transmission Service Provider version released in April).

## Opening capital base 1 July 2021 (\$ million, nominal)

	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Opening capital base</b>	111.1	114.7	116.0	119.7	123.6
Actual/estimated CAPEX	5.4	2.8	5.6	5.8	4.5
Regulatory depreciation	-1.8	-1.5	-1.9	-1.9	-4.9
Adjustments	0.0	0.0	0.0	0.0	0.0
<b>End of year asset value</b>	114.7	116.0	119.7	123.6	123.2

Opening capital base: 1 July 2021



Here, we are determining, for the start of the next access arrangement period, the opening value of the investment (capital base) on which we expect to earn a return during that next period. The return is a major component of the total revenue used in the setting tariffs.

Do you have any questions on this – the “roll forward” of the capital base?

## Capital base and return 2021 – 26 (\$ million, nominal)



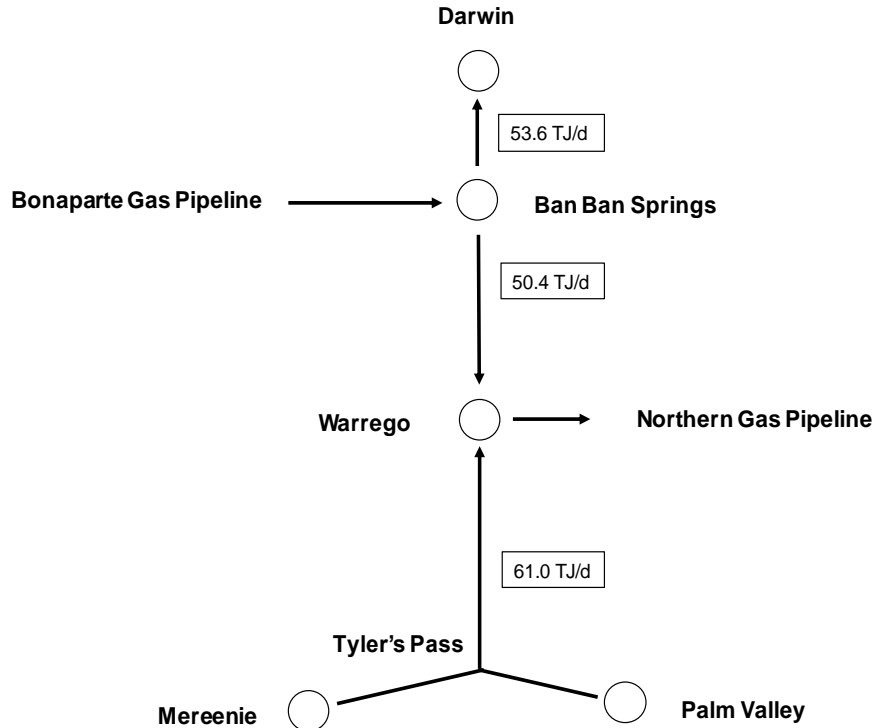
	2021-22	2022-23	2023-24	2024-25	2025-26
<b>Opening capital base</b>	<b>123.2</b>	<b>124.8</b>	<b>125.5</b>	<b>126.5</b>	<b>127.6</b>
Forecast CAPEX	2.7	2.0	2.5	2.8	2.7
Regulatory depreciation	-1.1	-1.3	-1.5	-1.7	-1.9
Adjustments	0.0	0.0	0.0	0.0	0.0
<b>End of year asset value</b>	<b>124.8</b>	<b>125.5</b>	<b>126.5</b>	<b>127.6</b>	<b>128.4</b>
Rate of return	4.79%	4.79%	4.79%	4.79%	4.79%
<b>Return on capital base</b>	<b>5.9</b>	<b>6.0</b>	<b>6.1</b>	<b>6.1</b>	<b>6.1</b>

## Total revenue 2021- 26 (\$million, nominal) and X factors

	2021-22	2022-23	2023-24	2024-25	2025-26
Return on capital base	5.9	6.0	6.0	6.1	6.1
Regulatory depreciation	1.1	1.3	1.5	1.7	1.9
Cost of corporate income tax	0.0	0.0	0.0	0.0	0.0
Efficiency gain or loss	2.6	1.6	-1.1	-0.4	0.0
Forecast OPEX	11.9	10.4	10.8	11.1	11.0
<b>Total revenue</b>	<b>21.5</b>	<b>19.3</b>	<b>17.2</b>	<b>18.5</b>	<b>19.0</b>
<b>Smoothed total revenue</b>	<b>21.4</b>	<b>20.2</b>	<b>19.0</b>	<b>17.8</b>	<b>16.8</b>
<b>X factors</b>	<b>6.9%</b>	<b>8.2%</b>	<b>8.2%</b>	<b>8.2%</b>	<b>8.2%</b>

Do you have any questions on the way in which we propose to determine the total revenue? Total revenue is a key input into reference tariff calculation.

# Forecasts: no capacity available for the firm service reference service



- All capacity which might otherwise be available for the firm service reference service is contracted under pre-existing agreements for the provision of firm transportation services.
- No capacity is available for the provision of the firm service reference service during the current access arrangement period (July 2016 to June 2021).
- No capacity is expected to become available for provision of the firm service reference service during the next access arrangement period.

## Forecasts: capacity is available for interruptible service

Pipeline segment		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Ban Ban Springs - Darwin	TJ/d	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ban Ban Springs - Warrego	TJ/d	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mereenie, Palm Valley - Warrego								
Capacity: Tyler's Pass - Warrego	TJ/d	61.0	61.0	61.0	61.0	61.0	61.0	61.0
Firm: Tyler's Pass - Warrego	TJ/d	22.6	22.6	22.6	22.6	22.6	22.6	22.6
<b>Capacity for interruptible service</b>	<b>TJ/d</b>	<b>38.4</b>	<b>38.4</b>	<b>38.4</b>	<b>38.4</b>	<b>38.4</b>	<b>38.4</b>	<b>38.4</b>

Forecasting demand for Amadeus is challenging because of the changes brought about by interconnection with the Northern Gas Pipeline in January 2019.

Do you have any questions? Do you have views on the outlook for this part of the gas market which might be shared?

# Cost allocation and reference tariffs



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## National Gas Rules guide tariff setting

- Reference services must have reference tariffs.
- We must now propose reference tariffs for the firm service reference service and the interruptible service reference service of the Amadeus Access Arrangement.
- The National Gas Rules guide the setting of these reference tariffs.



## Rules 93 and 95

- **Rule 93 requires the allocation of total revenue between reference and other services in the ratio in which costs are allocated between reference and other services.**
- **Rule 95 requires that a tariff for a transmission pipeline reference service be designed to generate from the provision of each reference service the portion of total revenue referable to that reference service.**
- **The portion of total revenue referable to a particular reference service is to be determined as follows:**
  - costs directly attributable to each reference service are to be allocated to that service
  - other costs attributable to reference services are to be allocated between them on a basis (which must be consistent with the revenue and pricing principles) determined or approved by the AER.

# Allocation of total revenue between reference and other services



- Total revenue is the total cost of providing all services – reference services and other services – using the Amadeus Gas Pipeline.
- Services provided under pre-existing agreements use all of the capacity available for the provision of firm transportation, and a small amount of the capacity available for interruptible service.
- Total revenue can be allocated between reference services and other services, allowing an allocation to the interruptible service reference service, with the remainder allocated to other services.
- If no capacity is available for the provision of the firm service reference service, no part of total revenue can be allocated to that service, and no reference can be determined.

## Allocation of total revenue between reference services

- To enable users and prospective users to understand the pricing of a firm service reference service, should capacity become available for that service, a firm service reference tariff has previously been calculated for the Amadeus Access Arrangement by making the assumption that all of the capacity used to provide the firm transportation services of pre-existing agreements is capacity which would otherwise have been used for the firm service reference service.
- We propose continuing this approach to a firm service tariff in the revised Access Arrangement.
- We propose allocating total revenue between the maximum quantity of firm transportation service under pre-existing agreements, and a forecast of the volume of interruptible service which might be expected during the access arrangement period (1 July 2021 to 30 June 2026).

## Tariff calculation: two key assumptions driving cost allocation



- Users with pre-existing agreements for firm transportation service have maximum transportation capacity of 145 TJ/d under these agreements.
- Although around 38 TJ/d of capacity is available for second-priority firm and interruptible services, particularly in the southern section of the Amadeus Gas Pipeline between Palm Valley and Warrego (see slide 13), we do not see demand for these services in excess of 15 TJ/d during the access arrangement period.

Questions?

## Tariff structure

- We are proposing to retain the structure of the firm service tariff: \$/GJ of contracted capacity for transportation between any receipt point and any delivery point on the Amadeus Gas Pipeline.
- We retain this simple price per GJ MDQ because the costs of transportation are the fixed costs of investment in the pipeline, and operating and maintenance costs which do not vary with the volume of gas transported.
- We are proposing a similar, simple structure for the reference tariff for the interruptible service reference service: \$/GJ of transported between any receipt point and any delivery point on the pipeline.

# Tariff calculation



		2021-22	2022-23	2023-24	2024-25	2025-26
Smoothed total revenue	\$m	21.4	20.2	19.0	17.8	16.8
X factors		6.9%	8.2%	8.2%	8.2%	8.2%
Firm service (100% load factor)	GJ	52,925,000	52,925,000	53,070,000	52,925,000	52,925,000
Interruptible service	GJ	5,475,000	5,475,000	5,490,000	5,475,000	5,475,000
	GJ	58,400,000	58,400,000	58,560,000	58,400,000	58,400,000
Allocation of total revenue to firm service	\$m	19.4	18.3	17.2	16.1	15.2
Firm service tariff	\$/GJ MDQ	0.3672	0.3452	0.3237	0.3051	0.2868
Allocation of total revenue to interruptible service	\$m	2.0	1.9	1.8	1.7	1.6
Interruptible service tariff	\$/GJ	0.3672	0.3452	0.3237	0.3051	0.2868

## Proposed reference tariffs

		2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
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Interruptible service	\$/GJ	n.a.	0.3672	0.3452	0.3237	0.3051	0.2868

- The firm and interruptible tariffs are nominally identical.
- They are, however, substantially different: at the firm service load factor for the Amadeus Gas Pipeline (about 72%), the interruptible tariff represents a discount of about 28% on the firm service cost per GJ of gas delivered.

## Reference tariff setting

- **We are proposing a commonly used method for the setting of tariffs for firm and interruptible services.**
- **We have not shown, but you can easily confirm:**
  - when discounted at the proposed rate of return (4.79%), the forecast revenue from firm service has a present value of \$75.5 million, and the forecast revenue from interruptible service has a present value of \$7.8 million: the forecast revenue from reference services has a present value of \$83.3 million
  - this is the present value of the total revenue (total cost of providing the services) from the Post-tax Revenue Model: as required by the National Gas Law, costs have been allocated, and tariffs calculated, in a way which provides Amadeus with a reasonable opportunity to recover at least the efficient costs expected to be incurred in providing reference services

**The reference tariffs are a key part of the Amadeus Access Arrangement revision proposal.**

**Do you have any questions on how we are proposing to structure the tariffs, or on how we proposed to determine them?**



Other access arrangement issues:  
reference tariff variation, queuing,  
capacity trading, extension and  
expansion



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## Reference tariff variation mechanism

- **The tariff variation mechanism in the Amadeus Access Arrangement allows annual variation of the reference tariff for:**
  - current inflation
  - a change in the rate of return on debt (as required by the National Gas Rules)
  - a material increase in costs attributable to one or more of a small number of specified events (including regulatory change, tax change, terrorism and natural disaster)
- **We propose retaining this mechanism, and using it to vary, annually, both the firm service reference tariff and the interruptible service reference tariff.**

**Do you have questions on the tariff variation mechanism?**

## Queuing requirements

- If pipeline capacity is not available to meet a request for access, prospective users can join a queue for access when capacity becomes available (either through termination of an existing transportation agreement, or through the service provider extending or expanding its pipeline).
- Queuing for access to capacity in the Amadeus Gas Pipeline is first come, first served.
- A request for access by a party with rights in a pre-existing agreement may be accorded first priority against any other request.
- We propose retaining the first come, first served queue
- We propose removing the first priority accorded to parties with pre-existing agreements in respect of access to any capacity provided by expansion of the pipeline.
- We shall change the timelines of the queuing requirements to accord with the requirements of NGR rule 112 (this rule was amended in April 2019).

## Capacity trading

- Section 5 of the Amadeus Access Arrangement sets out a basic scheme to facilitate the trading of capacity in the Amadeus Gas Pipeline.
- We shall amend this section to recognize capacity trading via the capacity trading exchange administered by the Australian Energy Market Operator. (This exchanged was created subsequent to the last revision of the Amadeus Access Arrangement.)

**Do you have any questions on the ways we are proposing to address queuing requirements and capacity trading?**

## Extension and expansion requirements

- Extension and expansion requirements, in accordance with rule 104 of the National Gas Rules, are set out in section 7 of the Amadeus Access Arrangement.
- In April 2019, the rule 104 was amended to require, among other things, that an applicable access arrangement state that the access arrangement applies to incremental services provided by any expansion of the pipeline during the access arrangement period.
- The option for a service provider to propose, to the AER, that the access arrangement not apply to those incremental services has been removed.
- We shall amend section 7 so that it accords with the current requirements of rule 104.

**Are there any questions on extension and expansion requirements?**

# Wrapping up and next steps



## Next steps

- **Roundtable 4 has been scheduled for Thursday, 11 June.**
- **At this final meeting, we shall summarize**
  - what we have heard from you, and
  - how we have used it in our Access Arrangement revision proposal for the Amadeus Gas Pipeline.
- **We shall provide further opportunity for questions and discussion.**
- **This need not mark the end of your participation in the process: once we have submitted our proposal, the AER will consult on the revisions.**

## Wrap up

- Summary of the discussion today
- Invite comments from participants

**Thank you for participating...stay safe.**





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Or visit the APA website:

[apa.com.au](http://apa.com.au)

Or Amadeus engagement webpage:

[apa.com.au/about-apa/our-projects/amadeus-gas-pipeline-access-arrangement/.](http://apa.com.au/about-apa/our-projects/amadeus-gas-pipeline-access-arrangement/)

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