

Amadeus Consumer Reference Group 2021 - 26 access arrangement revision



Roundtable 3a. Demand forecasts, interruptible service and total revenue
20 April 2020 via webex

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Agenda for today



1	Welcome Introductions
2	Recap of second roundtable meeting - key messages
3	Demand forecasts used to prepare prices for reference services (reference tariffs)
4	Draft access arrangement and new provisions for interruptible service
5	Asset base roll-forward model and total revenue
6	Wrap up and next steps

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?



Getting into the details

- **In this roundtable meeting, we continue to present to you our initial thinking of key issues for the Amadeus Access Arrangement revision proposal:**
 - Demand forecasts that will underpin the proposed reference service tariffs
 - Draft revised access arrangement incorporating an interruptible service reference service
 - Total revenue that has been calculated using the AER's roll-forward model and the post-tax revenue model.
- **We would like your questions and your feedback on all of these as we develop the Amadeus Access Arrangement revision proposal.**
- **Ideally, your questions will be raised during today's roundtable meeting where all can contribute to discussion. We are, however, available to discuss the issues listed above, and any other issues, outside of the meetings.**
- **During today's meeting, we shall provide opportunities for questions and discussion: we look forward to your contributions, and will summarize the key "take-outs", and feed these back to you for review before using them in the Access Arrangement revision proposal.**

Key take-outs from roundtable 2



Brief recap

- **At the second roundtable meeting in February, we presented information on:**
 - Demand forecasts – but not the forecasts themselves
 - Asset management plan and proposed capital expenditure
 - Operating cost forecast methodology and preliminary operating cost forecasts
 - Efficiency carry-over mechanism applying to operating expenditure in the current regulatory period
 - Rate of return.
- **We presented the key elements which go into total revenue and reference tariff determination.**
- **We are now ready to explain how we have determined the total revenue for the next access arrangement period (July 2021 to June 2026).**
- **The total revenue is the forecast of total costs from which reference tariffs are determined: we shall discuss our approach to reference tariff determination, and our proposed tariffs, at the next roundtable meeting.**

What we heard from you

- **Price of gas.** End price for gas is a major concern of consumers and businesses.
- **Capacity.** The lack of access to firm pipeline capacity is a key issue / source of frustration for some large businesses.
- **Interruptible service.** Current APA terms and conditions are a good starting point for the interruptible service which is to be included in the access arrangement as a reference service.
- **Demand forecasts.** Where are the numbers? Want to see the actual numbers for the demand forecasts.
- **What's in it for the community?**

Our consideration of what we heard

- **Price of gas.** We acknowledge that cost of energy is a key concern for the community and businesses. COVID-19 has added pressure to these concerns: Amadeus reference tariffs are expected to fall.
- **Capacity.** Amendments to pre-existing agreements, which should secure the rights of new users to firm service provided using expanded pipeline capacity, have been negotiated; APA is awaiting notification of ratification of the amendments by the relevant boards.
- **Interruptible service.** We have drafted the proposed revised access arrangement to incorporate the terms and conditions for interruptible service from the standard APA Gas Transportation Agreement; the drafting has been provided for comment. (Refer to R3.1 AGP proposed revised Access Arrangement 2021-2026).
- **Demand forecasts.** Our proposed demand forecasts, and our approach to forecasting, are set out in a separate document for comment. (Refer to R3.2 AGP Demand Forecast).

Our consideration of what we heard

- **What's in it for the community?** Amadeus is an important part of the energy supply for Northern Territory. We operate Amadeus in a safe, reliable and cost efficient way. Our aim is to continue doing this.

Discussion

Do you have any comments?

We appreciate you have not had much time to review the draft terms and conditions for interruptible service, or to review our demand forecasts.

We shall provide the opportunity for further discussion of these at our next roundtable meeting.

Draft access arrangement and new provisions for interruptible service



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Interruptible service as a reference service

- The AER's December 2019 reference service proposal decision for the Amadeus Gas Pipeline required that we make interruptible service a reference service.
- We have drafted the proposed revised access arrangement to incorporate the terms and conditions for interruptible service in the standard APA Gas Transportation Agreement.
- **PLEASE NOTE:** the draft of the proposed revised Amadeus Access Arrangement we have provided for your comment is not a completed draft: we have largely completed drafting for the interruptible service (probably the major change to the access arrangement), but have not completed other sections of the document which now require amendment.

Interruptible service as a reference service

- **Interruptible service is provided from the un-nominated capacity contracted under pre-existing agreements; it is available to prospective users only if capacity for firm service is not available.**
- **To use the interruptible service reference service, a user must have a gas transportation agreement for that service, and must nominate, in accordance with the terms of that agreement, a quantity of gas to be delivered on a day the service is required.**
- **The total of the nominations for interruptible service may, on a day, exceed the capacity available for provision of that service.**
- **If the capacity available is not sufficient for all users requesting interruptible service, then APA will allocate the available capacity equitably (that is on the basis of tariffs paid, first-come-first-served, pro rata based on nominated quantities or such other basis as it reasonably determines) among users who have entered into Interruptible Transportation Agreements.**
- **There are existing transportation agreements for interruptible service, and this requirement for equitable allocation of the available capacity is currently in the terms and conditions of Schedule 3 of the Amadeus Access Arrangement, and in APA's standard gas transportation agreement.**

Demand forecasts to be used to determine prices for reference services

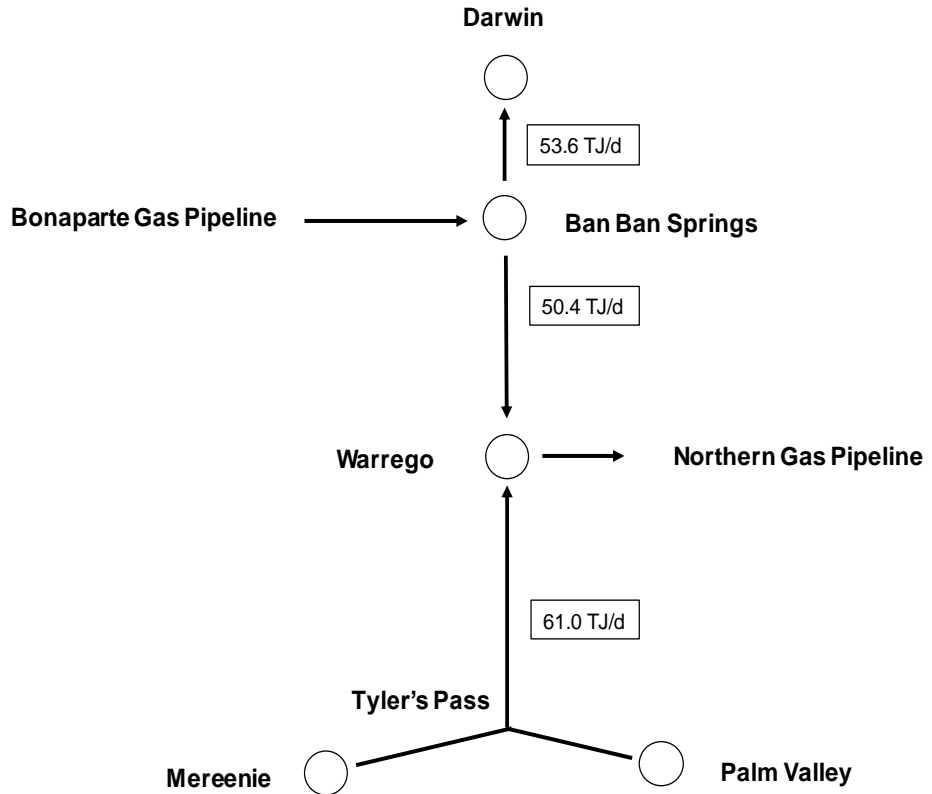


Demand forecasts

Recap of what we presented previously

- Significant change in utilisation of Amadeus with commercial operation of the Northern Gas Pipeline (NGP) in January 2019
- Gas delivered from Amadeus into the NGP transported to Queensland, and via other pipelines, into the East Coast gas market
- All of the capacity which might be used to provide the firm service reference service is fully contracted by users with pre-existing agreements for firm transportation services
- Interruptible service can be made available using any unused part of the Amadeus capacity which has been contracted to users with pre-existing agreements

Capacity



Pipeline segment	TJ/d
Ban Ban Springs - Darwin	53.6
Ban Ban Springs - Warrego	50.4
Mereenie, Palm Valley - Warrego	61.0
Nameplate rating	165.0

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	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Capacity available for interruptible service	TJ/d	47.2	47.2	47.2	47.2	47.2	47.2	47.2

Asset base roll-forward and total revenue



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Total revenue

- Reference tariffs for an access arrangement are calculated from the total of the costs expected to be incurred by an efficient service provider.
- This total of the costs expected to be incurred is called the building block total revenue.
- The building blocks of total revenue are:
 - Return on capital base
 - Depreciation
 - Estimated cost of corporate income tax
 - Efficiency gain or loss
 - Forecast OPEX
- If costs are incurred as expected, and if forecasts of service provision are realised, the reference tariffs of an access arrangement should allow the service provider to recover only its efficiently incurred costs.

Total revenue

- **We have used the AER's Post-tax Revenue Model (the gas transmission version released earlier this month) to calculate total revenue.**
- **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
- **We discussed forecast CAPEX, forecast OPEX and the rate of return on capital with you at our last roundtable meeting.**
- **We spoke about CAPEX during the current access arrangement period, but did not explain how we would arrive at the opening capital base.**
- **We have determined the opening capital base – the capital base at 1 July 2021 – using the AER's Roll Forward Model (the gas transmission version released earlier this month).**

Roll forward model



- The Roll Forward Model takes, as its starting point, the opening capital base – as approved by the AER in its last Amadeus decision – at the start of the current access arrangement period.
- CAPEX for the current period is added to the capital base.
- Regulatory depreciation, calculated in the model using the AER's indexed straight line method, is subtracted.
- If necessary, adjustments must be made for asset disposals and speculative capital brought into the capital base.
- The Roll Forward Model also “rolls forward” the tax asset base and the calculation of tax depreciation.

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



	2016-17	2017-18	2018-19	2019-20	2020-21
Opening capital base	111.0	115.1	116.6	120.1	123.9
Actual/estimated CAPEX	5.4	2.8	5.6	5.8	4.5
Regulatory depreciation	-1.3	-1.3	-2.1	-2.0	-2.2
Adjustments	0.0	0.0	0.0	0.0	0.0
End of year asset value	115.1	116.6	120.1	123.9	126.2

Opening capital base: 1 July 2021



Applying the Post-tax Revenue Model

- The Roll Forward Model provides the opening capital base.
- Our forecast CAPEX for the access arrangement period is added to the opening capital base.
- Regulatory depreciation, calculated by the Post-tax Revenue Model using the indexed straight line method, is subtracted
- The result is a year-by-year projection of the capital base across the access arrangement period.
- Return on the capital base is calculated, year-by-year, by multiplying the projected capital base by the rate of return on the capital base.
- The cost of corporate income tax is estimated by the Post-tax Revenue Model.
- Efficiency gains or losses, and forecast OPEX, are added to complete the total revenue calculation.

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

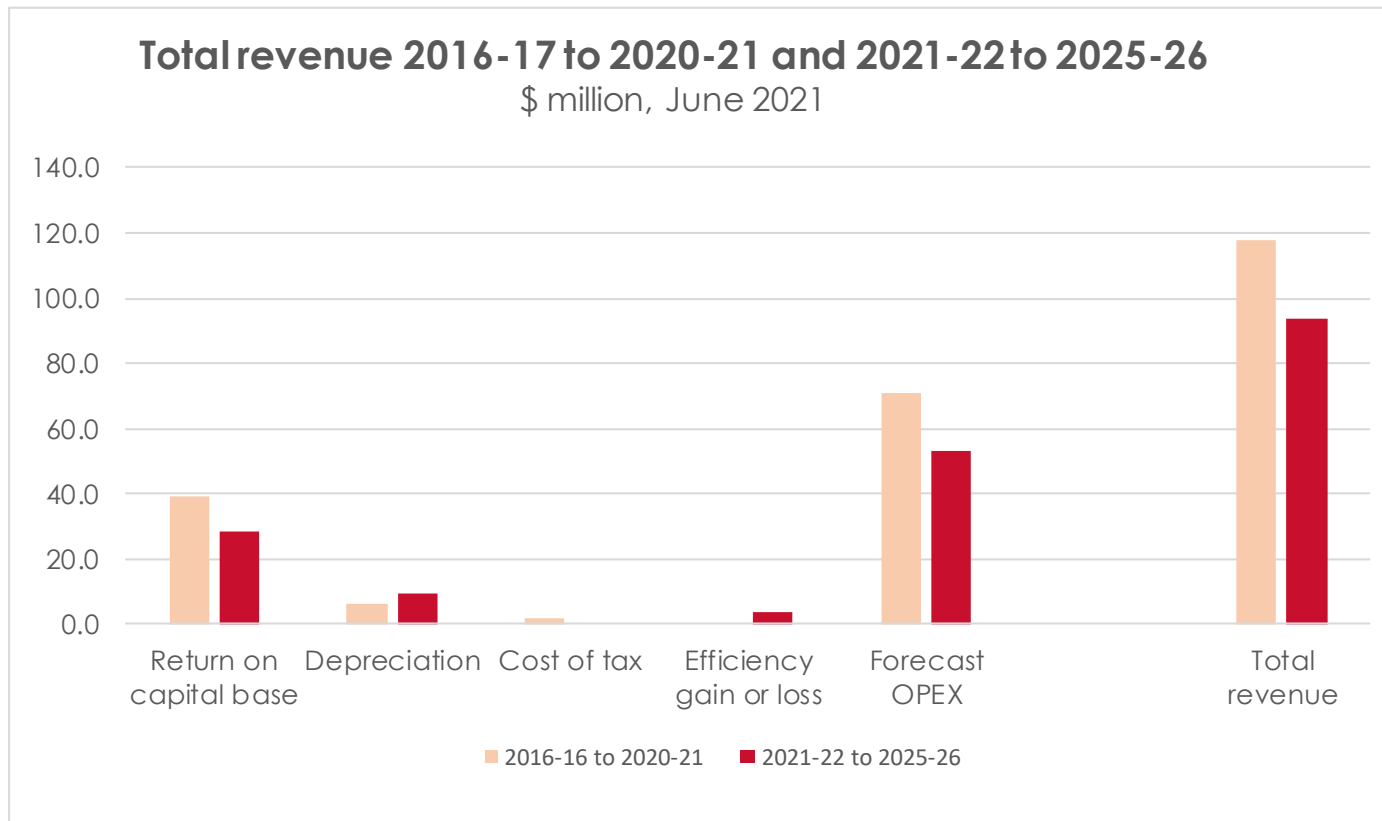


	2021-22	2022-23	2023-24	2024-25	2025-26
Opening capital base	126.2	127.1	127.1	127.3	127.8
Forecast CAPEX	2.8	2.0	2.5	2.8	2.7
Regulatory depreciation	-1.8	-2.1	-2.3	-2.3	-1.2
Adjustments	0.0	0.0	0.0	0.0	0.0
End of year asset value	127.1	127.1	127.3	127.8	129.3
Rate of return	4.80%	4.80%	4.80%	4.80%	4.80%
Return on capital base	6.1	6.1	6.1	6.1	6.1

Total revenue 2021- 26 (\$million, nominal)

	2021-22	2022-23	2023-24	2024-25	2025-26
Return on capital base	6.1	6.1	6.1	6.1	6.1
Regulatory depreciation	1.8	2.1	2.3	2.3	1.2
Cost of corporate income tax	0.0	0.0	0.0	0.0	0.0
Efficiency gain or loss	2.7	1.8	-1.0	-0.2	0.0
Forecast OPEX	12.7	10.6	11.0	11.3	11.2
Total revenue	23.4	20.6	18.4	19.4	18.6

Total revenue is declining



Wrapping up and next steps



Next steps

- **We need to reschedule the second part of Roundtable 3 to date to be advised.**
- **At Roundtable 3b we will talk about**
 - Demand forecasts
 - Drafting of revised Access Arrangement
 - Reference tariffs
 - Queuing policy, capacity trading, extensions and expansions.
- **We are aiming to hold one more roundtable in May to provide a summary of what we heard from you and how we have considered these things in the access arrangement revision proposal.**

Wrap up

- Summary of the discussion today
- Invite comments from participants

Thank you for participating...
especially in light of the current difficult circumstances



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