DRAFT DECISION
Amadeus Gas Pipeline
Access Arrangement

2021 to 2026

Overview

November 2020

AUSTRALIAN ENERGY REGULATOR

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Invitation for submissions

In response to our draft decision, APTNT has the opportunity to submit a revised proposal for its next (2021–26) access arrangement period by **15 January 2021**.

Submissions on our draft decision and APTNT's revised proposal are invited from interested stakeholders by **23 February 2021**. We will consider and respond to all submissions received by that date in our final decision. Subject to stakeholder interest, we will also consider holding a public forum following submission of the revised proposal.

Submissions should be sent to: Amadeus2021@aer.gov.au

Alternatively, submissions can be sent to:

Sebastian Roberts
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process.

Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

(1) clearly identify the information that is the subject of the confidentiality claim

(2) provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on our website.[1]

[1] For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy* (June 2014), which is available on our website: https://www.aer.gov.au/publications/corporate-documents/accc-and-aer-information-policy-collection-and-disclosure-of-information.

Note

This attachment forms part of the AER's draft decision on the access arrangement that will apply to APT Pipelines (NT) Pty Ltd (APTNT)'s Amadeus Gas Pipeline for the 2021–2026 access arrangement period. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Services covered by the access arrangement

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 9 – Reference tariff setting

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Executive summary

The Australian Energy Regulator (AER) regulates gas transmission and distribution networks in all Australian jurisdictions except Western Australia. As part of this process, regulated gas network businesses must periodically apply to us for a ruling on the network tariffs that in turn influence the expected amount of revenue it will recover from their customers for using its network. The National Gas Law and Rules (NGL and NGR) provide the regulatory framework governing gas transmission and distribution networks. Our work under this framework is guided by the National Gas Objective (NGO). We use our insights and expertise to determine how much money the businesses can recover from consumers for using their networks.

We are currently doing this for the Amadeus Gas Pipeline in the Northern Territory for the 2021–26 access arrangement period, which runs from 1 July 2021 to 30 June 2026 (2021–26 period).

APT Pipelines (NT) Pty Limited (APTNT) operates the Amadeus Gas Pipeline, which plays a major role in energy supply in the Northern Territory, transporting natural gas to Darwin, Alice Springs and regional centres.[2]

This draft decision sets out the amount of money APTNT can collect from gas consumers for using its network in the 2021–26 period. We note that the unprecedented changes to the economic environment as a result of COVID-19 will have wide ranging impacts which may cause aspects of APTNT's proposal to differ at the revised proposal stage. We base this draft determination on current information and best forecasts that can reasonably be made.

Having assessed ATPNT's proposal, we largely accept it recognising that APTNT will need to incur additional asset replacement in the next period to enable the continued operation of a reliable and secure gas supply. We accept the capital and operating expenditure for the next period subject to minor corrections and updates, which will be addressed in APTNT's revised proposal.

APTNT can recover $93.8 million ($nominal, smoothed) from its customers for the 2021–26 period. This outcome is 21.6 per cent lower than the forecast revenue requirement used to determine reference tariffs in the current, 2016–21 access arrangement period.

The Amadeus Gas Pipeline has been in service for around 35 years, roughly half its intended life. APTNT's proposal is consistent with a pipeline which is about half-way through its physical life, with expenditure predominately for corrective maintenance and replacement because components of the pipeline have either reached the end of their physical lives or are obsolete and can no longer be maintained.

APTNT's proposal represents a step down in expenditure for the next period, following strong investment in its pipeline, meters and buildings in the current 2016–21 period.

In its 2021–26 access arrangement proposal, APTNT has added an interruptible service to its list of pipeline services.[3] [4] The addition of an interruptible service should allow the

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[2] Customers of the pipeline's services are called shippers. Shippers or potential shippers act like wholesalers and on-sell gas to customers.

[3] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, cl. 2.2.1(b).

transportation of gas, particularly from southern producers to Warrego and the Northern Gas Pipeline, at a time when capacity for the firm service reference service of the access arrangement is fully contracted under pre-existing agreements.

The key themes of the draft decision are:

- ensuring consumers pay no more than they need for safe and reliable gas services
- a marked improvement in the consumer engagement by the APA Group (APA), the owner and operator of the Amadeus Gas Pipeline, compared to engagement in relation to previous access arrangements
- the inclusion of the new interruptible service
- interest from stakeholders in expanding the capacity on the Amadeus Gas Pipeline.

Ensuring consumers pay no more than they need for safe and reliable gas services

Ensuring consumers pay no more than they need for safe and reliable gas services that they want is a cornerstone of the access arrangement decision process. This involves us assessing whether a business' proposal is a reasonable and realistic forecast of how much money it needs for the safe and reliable operation of the network. To do this, we have used a range of materials, including APTNT's proposal, stakeholders' submissions and our own analysis. Additionally, we have engaged directly with APTNT representatives to discuss and seek further information on aspects of its proposal.

APTNT's consumer engagement has indicated that energy prices are the number one concern for businesses and electricity consumers in the Northern Territory.[5] In response to these concerns, APTNT has submitted a proposal to us that puts downward pressure on gas network charges in the 2021–26 period.

Key drivers of APTNT's lower revenue in the 2021–26 regulatory period, compared to the current 2016–21 period, are lower proposed opex, a lower return on capital and a lower forecast tax allowance.

APTNT's Stakeholder Engagement

APA, who owns and operators the Amadeus Gas Pipeline through its wholly owned subsidiary APTNT, showed a marked improved in its consumer engagement supporting this access arrangement compared to engagement in previous access arrangements for other assets. This indicated to us that APA had taken on board prior feedback from us to expand its stakeholder engagement activities.[6] There is a noticeably more transparent approach to stakeholder engagement this time. APA consulted openly with stakeholders and the Northern Territory community on expenditure plans for the Amadeus Gas Pipeline. This occurred through a number of workshops and round table meetings with its consumer reference group over a 12 month period prior to submitting its access arrangement proposal.[7]

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4 This is consistent with our November 2019 reference service proposal decision; AER, *Final Decision, APTNT (Amadeus) 2021–26 Reference Service Proposal*, November 2019.

5 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p. 1.

6 AER, *Murraylink Transmission Determination Final Decision 2018 to 2023*, April 2018.

7 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal*, July 2020, pp. 6–14.

We recognise and congratulate APTNT on its consumer engagement approach in developing its 2021–26 proposal. We acknowledge the Amadeus Gas Pipeline is a modest asset compared to other pipelines and we consider APTNT's consumer engagement to be an appropriately targeted low cost engagement program. We encourage APTNT to continue to work with stakeholders during the course of the regulatory determination and beyond to ensure that stakeholder views are reflected in its proposals to us.

Section 1.3 details further consideration of APTNT's consumer engagement program and our framework for assessing consumer engagement. It sets out the considerations that we think can clearly demonstrate whether consumers have been genuinely engaged in the development of the proposal.[8]

A New Interruptible Service

An interruptible service refers to services that are provided on an as available basis, where capacity usually available for the firm service is not consumed and made available to other pipeline users. This is an important new service on the Amadeus Gas Pipeline because capacity for firm transportation services is fully contracted to existing pipeline users.[9]

APA has actively engaged with its customers on the design of the interruptible service for inclusion in the 2021–26 access arrangement and stakeholders have supported the introduction of the new service and corresponding tariff.[10] During the stakeholder submission phase of the proposed access arrangement for the Amadeus Gas Pipeline, we did not receive any concerns from stakeholders over the introduction of an interruptible service on the Amadeus Gas Pipeline. We therefore accept this additional service.

Expanding capacity on the Amadeus Gas Pipeline

The future of natural gas is a live issue, particularly as renewable energy becomes cheaper and is increasingly becoming the choice of consumers. Whilst some jurisdictions in Australia are facing future investment uncertainty in gas, this is not the case in the Northern Territory where gas is the principal fuel for power generation.[11] In the Northern Territory, demand for gas is strong, the risk of asset stranding is low and potential investors are making the case for an expansion of gas pipelines like the Amadeus Gas Pipeline to supply both the Northern Territory market and export to markets in the eastern states.

Although APA has not proposed a market expansion,[12] the question of expanding the capacity on the Amadeus Gas Pipeline is a common issue raised by stakeholders.[13] We received two submissions on APTNT's proposal, one from the Power and Water Corporation and another from Energy Matrix Group Pty Ltd (a gas trading consultant) and the main focus

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8 See table 7, AER, *Draft decision, Jemena distribution determination 2021–26*, September 2020, p. 43.

9 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020.

10 APTNT, *Amadeus Gas Pipeline Consumer Reference Group Roundtable 3a Presentation*, 20 April 2020. The material on APA's consumer engagement for the 2021–26 access arrangement revision can be found at: https://www.apa.com.au/about-apa/our-projects/amadeus-gas-pipeline-access-arrangement.

11 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p. 10.

12 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, pp. 27–28.

13 APTNT, *Amadeus Gas Pipeline Customer Reference Group Roundtable 3a Presentation,* 20 April 2020.

of both of these submissions was an interest in expanding capacity on the Amadeus Gas Pipeline.

We are aware that APA is considering a market expansion with its key network user, Power and Water Corporation. A market expansion under the access arrangement would have an impact on APTNT's capital base and future revenue. Any proposal for a market expansion for the next period, will need to be well defined and supported in APTNT's revised proposal following consultation with consumers.

Making this draft decision

In making this draft decision, we have had regard to a range of sources including APTNT's proposal, submissions received, as well as additional analysis undertaken and published by us.

Overall, we are of the opinion that APTNT has put forward a well-informed initial proposal, underpinned by sound consumer engagement. APTNT now has an opportunity, in its January 2021 revised proposal, to update its position in line with the expectation of its stakeholders.

Overall, we are satisfied that our draft decision on ATPNT's 2021–26 access arrangement proposal is likely to be in the long term interests of consumers.

Next steps

APTNT now has the opportunity to consider our draft decision. It must submit its revised proposal to us by **15 January 2021**.

Interested stakeholders are invited to make submissions on both our draft decision and APTNT's revised proposal (once submitted) by **23 February 2021**.

We will make our final decision by **30 April 2021**.

1 Our draft decision

Our draft decision would allow APTNT to recover $93.8 million ($nominal, smoothed) from its customers from 1 July 2021 to 30 June 2026.

APTNT's reference tariffs are derived from the total revenue requirement *after* consideration of demand. The Amadeus Gas Pipeline operates under an average price cap. This means that the tariff we determine (including the means of varying the tariff from year to year) is the binding constraint across the 2021–26 access arrangement period, rather than the total revenue requirement set in our decision.[14]

Gas pipelines that are subject to full regulation, like the Amadeus Gas Pipeline, are regulated by us under an approved access arrangement.[15] An access arrangement specifies certain pipeline services (reference services) and the price and non-price terms and conditions on which those reference services will be offered over a five-year period.

To approve an access arrangement, we make regulatory decisions on the revenue that pipeline operators, such as APTNT, can recover from users of its reference services.

For this draft decision, our assessment is based on the access arrangement proposal that APTNT submitted to us in July 2020.[16] APTNT's proposal sets out its view of its expected costs, demand and required revenues for the 2021–26 period.

1.1 What is driving revenue?

The changing impact of inflation over time makes it difficult to compare revenue from one period to the next on a like-for-like basis. To do this, we use 'real' values based on a common year, which have been adjusted for the impact of inflation ($2020–21).[17]

This draft decision approves a total revenue for the 2021–26 period that is $24.1 million (21.6 per cent) lower than we approved in our 2016–21 decision.[18]

Figure 1 shows our draft decision for APTNT's smoothed revenue for the 2021–26 period, and its allowed revenues over 2011–21.

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[14] Where actual demand across the 2021–26 access arrangement period varies from the demand forecast in the access arrangement, APTNT's actual revenue will vary from the revenue allowance determined in our decision. In general, if actual demand is above forecast demand, APTNT's actual revenue will be above forecast revenue, and vice versa.

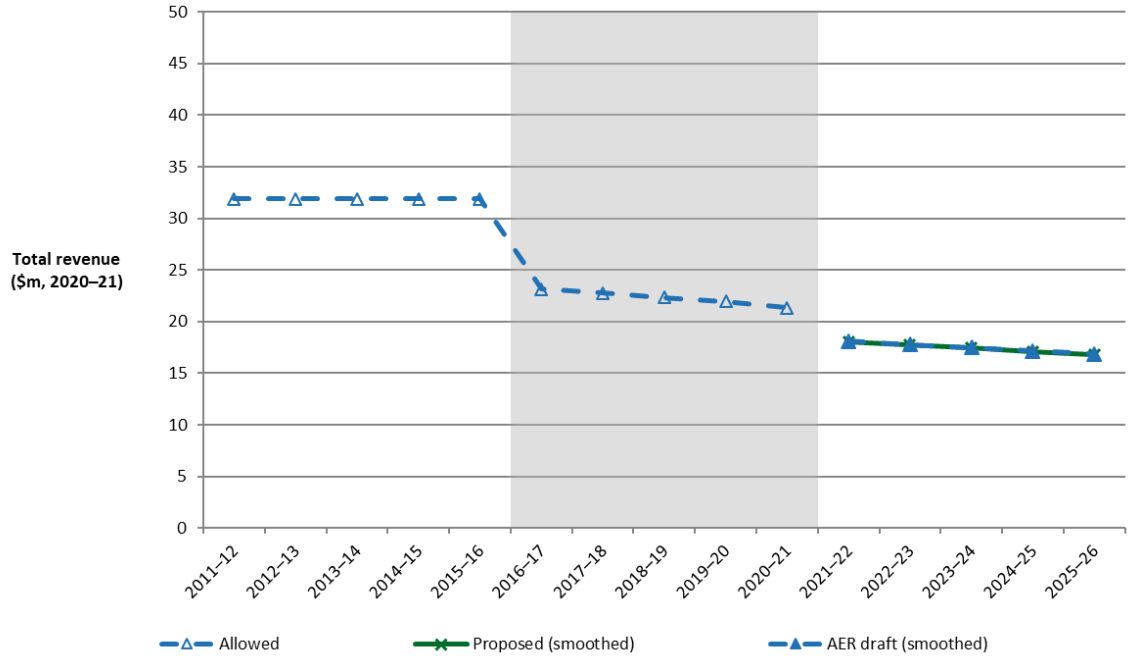
[15] The NGL provides for different types of regulation to apply to gas pipelines, based on competition and significance criteria. A 'full regulation' pipeline must periodically submit an access arrangement to the AER, setting out pricing for a reference service sought by a significant part of the market. 'Light regulation' pipelines are not subject to upfront price regulation. The light regulation model is a negotiate-arbitrate approach, placing greater emphasis on commercial negotiation and information disclosure. The AER plays a role only if dispute resolution mechanisms are triggered.

[16] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020.

[17] That is, 30 June 2021 dollar terms based on APTNT's estimated actual revenue for 2020–21.

[18] The comparison of total revenues between the 2021–26 and 2016–21 periods is based on smoothed revenues. In nominal dollar terms, our draft decision total revenues for the 2021–26 period is $18.2 million, or 16.3 per cent, lower than the total revenues approved for the 2016–21 period.

Figure 1 Revenue over time ($million, 2020–21)



Source: AER analysis.

Figure 2 highlights the key drivers of the change in APTNT's allowed revenue from the 2016–21 period compared to what we expect in the 2021–26 period. It shows that our 2021–26 draft decision provides for reductions in the building blocks for:

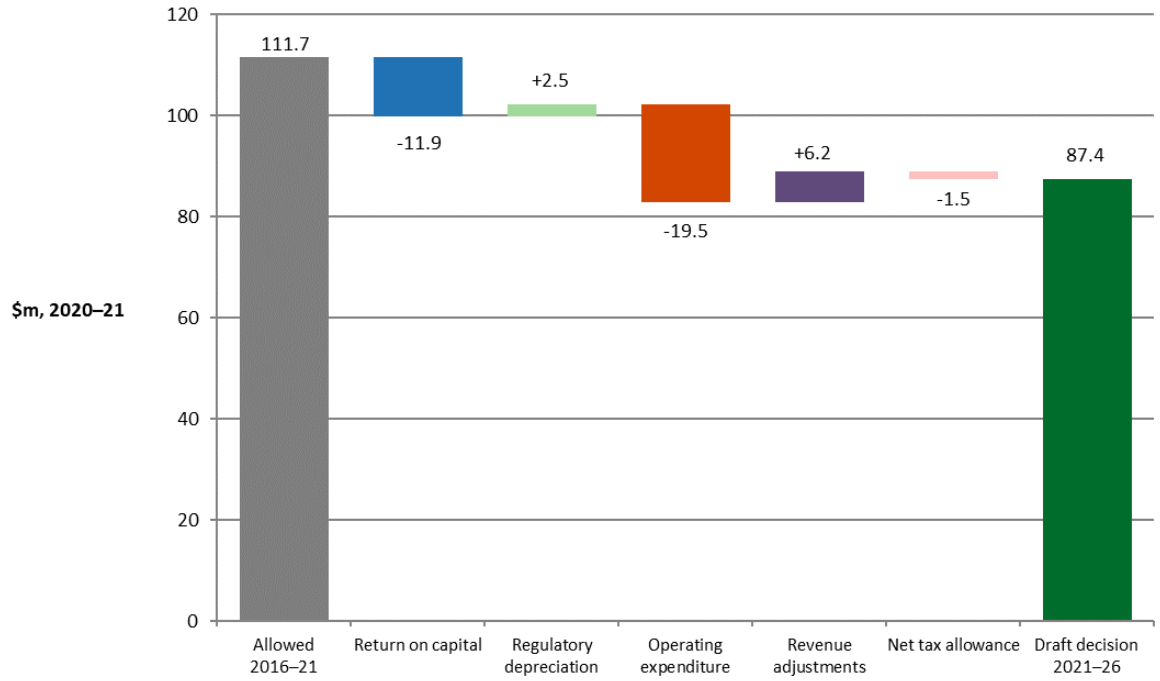
- return on capital, which is $11.9 million (32.0 per cent) lower than 2016–21, driven by decreases in the nominal weighted average cost of capital (WACC) from 6.18 to 4.64 per cent in the first year of the 2016–21 and 2021–26 periods, respectively[19]
- operating expenditure, which is $19.5 million (28.9 per cent) lower than the amount approved for the 2016–21 period
- corporate income tax, which is $1.5 million lower than 2016–21, driven by the implementation of our findings from the 2018 review of the regulatory tax approach, and the higher gamma determined in our 2018 rate of return instrument.

Figure 2 also shows that our decision provides for an increase in the building block for:

- regulatory depreciation, which is $2.5 million (43.7 per cent) higher than the 2016–21 period, driven by a higher opening capital base and lower remaining asset lives for the 2021–26 period
- a revenue adjustment, which is $6.2 million for the 2021–26 period, reflecting the Opex Efficiency Mechanism carryover amounts accrued over the 2016–21 period. There was no revenue adjustments amount approved for the 2016–21 period.

[19] We compare first year values because the nominal WACC is annually updated each year to reflect changes in the cost of debt.

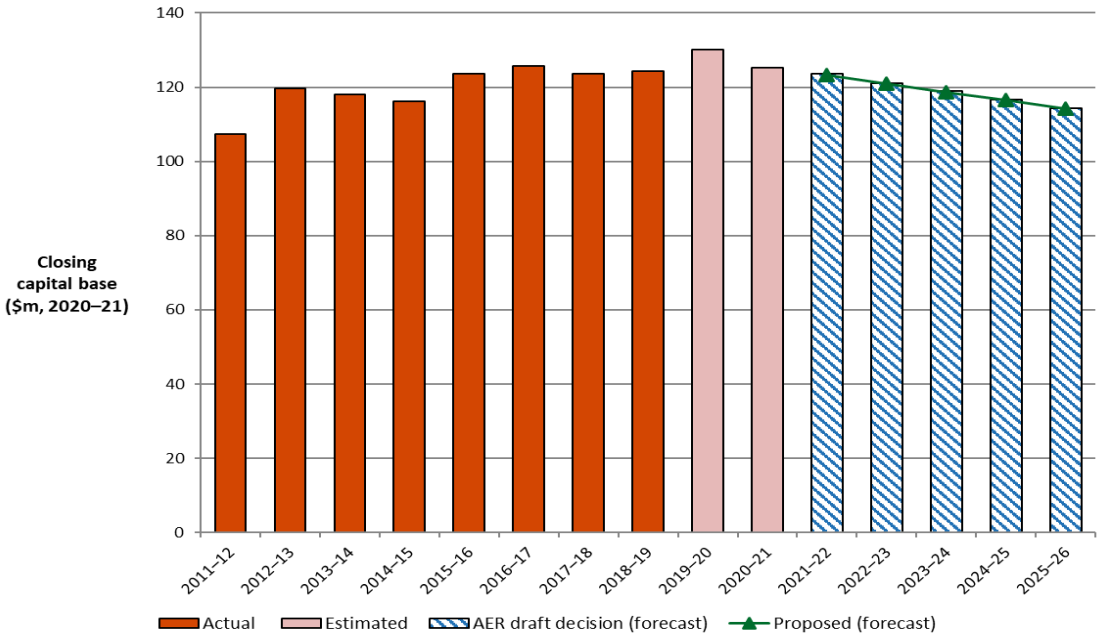
Figure 2 AER's draft decision for the 2021–26 period and APTNT's 2016–21 allowed building block costs ($million, 2020–21)



Source: AER analysis.

Figure 3 compares our draft decision on APTNT's forecast capital base, to APTNT's actual and proposed forecast capital base. It shows that APTNT's capital base is declining over the 2021–26 period.

Figure 3 Value of APTNT's capital base over time ($million, 2020–21)



Source: AER analysis.

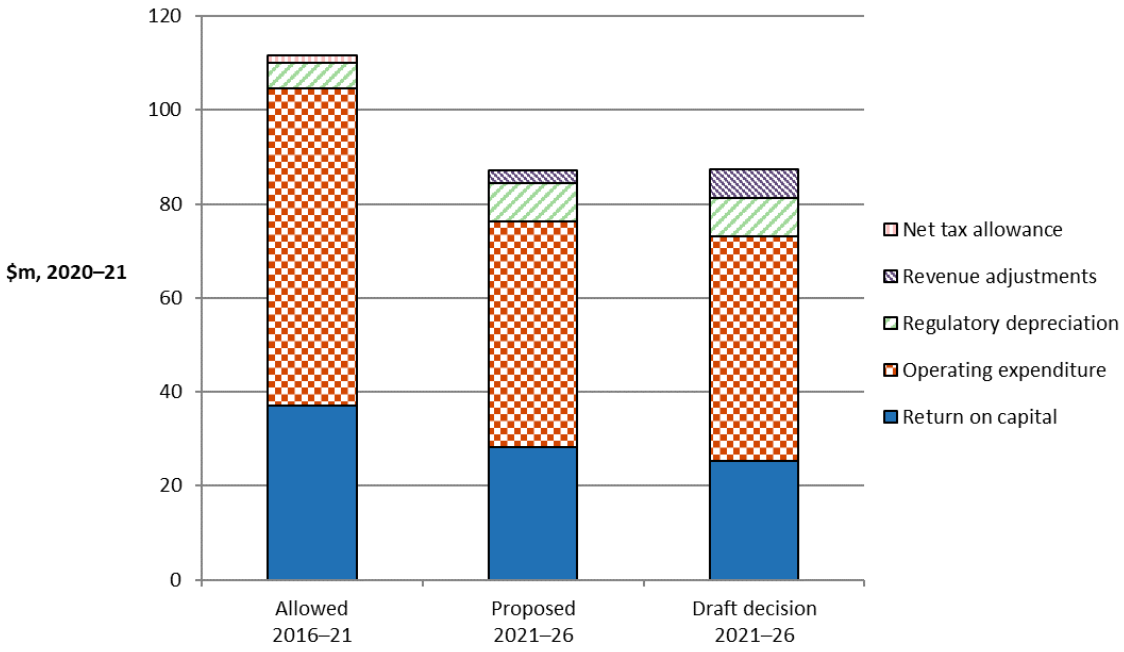
1.2 Key differences between our draft decision and APTNT's proposal

APTNT proposes total forecast revenue of $93.6 million for the 2021–26 period.[20] Our draft decision of $93.8 million allows $0.2 million (0.3 per cent) more revenue than APTNT seeks to recover through its 2021–26 proposal.

Figure 4 compares the building block revenue from our draft decision to APTNT's proposal for the 2021–26 period, and to approved revenue for the 2016–21 period.

The biggest contributors to the difference between our draft decision revenue and APTNT's proposal essentially offset each other. These are the current rate of return (and, therefore, the return on capital) and revenue adjustments. Whilst APTNT has applied the 2018 rate of return instrument and proposes a 4.79 per cent rate of return, currently the risk free rate and cost of debt is lower than at the time of its proposal, leading to a rate of return of 4.64 per cent. Consequently, the amount for the return on capital building block is $3.3 million lower compared to APTNT's proposal. However, this change is more than offset by the increase in the Opex Efficiency Mechanism carryover amount of $3.6 million compared to APTNT's proposal.

Figure 4 AER's draft decision on components of total revenue ($million, 2020–21)



Source: AER analysis.

[20] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM*, July 2020.

1.3 APTNT's consumer engagement

Consumer engagement helps APTNT determine how best to provide services that align with consumers' long term interests. Consumer engagement in this context is about APTNT working openly and collaboratively with consumers and providing opportunities for their views and preferences to be heard and to influence APTNT's decisions.

In the regulatory process, strong consumer engagement can help us test network service providers' expenditure proposals, and can raise alternative views on matters such as service priorities, capex and opex proposals, and tariff structures.

We use a range of considerations to demonstrate whether consumers have been genuinely engaged in the development of APTNT's 2021–26 Amadeus Gas Pipeline access arrangement proposal. This is the framework for considering consumer engagement in our recent Victorian electricity draft decisions.[21] These include:

- nature of engagement
- breadth and depth of engagement
- clearly evidenced impact
- assessment of outcomes for the proposed opex and capex allowances.

Nature of engagement

APA established an Amadeus Consumer Reference Group for the development of its 2021–26 Amadeus Gas Pipeline access arrangement proposal. This reference group included representatives from a across the community: consumer advocates, pipeline users and prospective users, gas producers, gas retailers, industry and business groups, land owners, and Northern Territory Government agencies.[22]

APA held four pre-proposal stakeholder engagement roundtables and a workshop with its reference group[23] during the six months from December 2019 to June 2020. During these roundtable sessions, APA consulted openly with stakeholders on the pipeline's asset management plan.

APA prepared a draft engagement plan on which it sought stakeholder feedback in order to adjust its engagement style and content as directed by feedback from consumers. Further, prior to the submission of its access arrangement proposal, APA sought feedback from stakeholders on its consultation process by holding a fourth round table which focused on what APA had learned and how it had been incorporated into the proposal.

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21 See table 7; AER, *Draft decision, Jemena distribution determination 2021–26, Overview*, September 2020, p. 43.

22 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p. 7.

23 The Amadeus reference group was formed in December 2019 and has a range of representatives consisting of COTA, NT Power and Water, NT Generation, NT Government, SANTOS, Central Petroleum, NT Cattleman's Association, Glencore (Minerals and Energy Investments), Macquarie Group, AGL and Origin. APA engaged GHD consultants to run the engagement process.

It is clear that APA's consultation with stakeholders has been genuine and that the feedback APA has sought from stakeholders to help develop its 2021–26 Amadeus Gas Pipeline access arrangement has been incorporated into the proposal.

Breadth and depth of engagement

The people and organisations with whom APA consulted during this process were located in a number of capital cities. Initially they met in Darwin, providing on-line access to meetings. However, after government-sanctioned travel restrictions were imposed in March 2020, in response to the COVID-19 pandemic, meetings were moved on-line. Where people could not attend, APA offered one-on-one meetings by telephone.[24]

APA has been clear and transparent with stakeholders when communicating its thinking and plans. As an ASX-listed company, and a company with confidential contracts, there were some things APA could not disclose to stakeholders. We note that APA communicated early with stakeholders about what was and wasn't open to consumer influence. We consider this helped to set realistic stakeholder expectations upfront.

Clearly evidence impact

APA encouraged a participative style when communicating with stakeholders. In particular, APA were influenced by stakeholders in the areas of energy affordability and the design of the interruptible reference service.

We received two submissions on APTNT's Amadeus Gas Pipeline proposal. Both submissions expressed interest in expanding the pipeline. Although APA has not proposed a market expansion,[25] the question of expanding the capacity on the Amadeus Gas Pipeline is a common issue raised by stakeholders.[26] We are aware that APA is considering a market expansion with its key network user, Power and Water Corporation. A market expansion under the Access Arrangement would have an impact on APTNT's capital base and future revenue. Any proposal for a market expansion for the next period, will need to be well defined and supported in APTNT's revised proposal following consultation with consumers.

Stakeholders raised no other concerns over APTNT's proposal.

Assessment of outcomes

APA reported that, during consultation with stakeholders, they repeatedly heard energy prices were the number one concern for consumers and businesses in the Northern Territory. APA states that businesses are facing tough conditions, and lower cost energy is seen as important for long term economic development.[27]

Consistent with these concerns APTNT's access arrangement proposal demonstrates a priority on keeping costs down. The prices for gas transportation proposed to the AER for 2021–2026 are more than 40 per cent lower than prices in the current regulatory period. APA

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[24] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview,* July 2020, July 2020, p. 7.

[25] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, pp. 27–28.

[26] APTNT, *Amadeus Gas Pipeline Customer Reference Group Roundtable 3a Presentation,* 20 April 2020.

[27] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview,* July 2020, July 2020, p. 7.

state they were able to achieve this by acknowledging and acting on the following information:

> We acknowledged that energy prices were a major concern.
>
> APA Asset Management Policy, applied to Amadeus, is focused on balancing asset performance, risk and cost.
>
> Capital expenditures are forecast to be the minimum consistent with safety, reliability and the security of gas supplies.
>
> Operating expenditure has been forecast from a low base year, and is subject to an efficiency incentives scheme.

APTNT's revenue proposal clearly illustrates that consumer concerns on prices were heard and acted upon. Our draft decision has approved APTNT's proposed revenue.

Overall, we are of the opinion that ATPNT has put forward a well-informed initial proposal, underpinned by sound consumer engagement. We encourage APA to continue with its quality consumer engagement during the course of the regulatory determination and beyond to ensure that stakeholder views are reflected in its proposals to us.

2 Reference services and tariffs

This section summarises our 2021–26 draft decision on the services covered by APTNT's access arrangement, the reference tariff and reference tariff variation mechanism, and forecast demand.

2.1 Services covered by the access arrangement

The access arrangement must specify the pipeline services APTNT proposes to be reference services having regard to the reference service factors.[28] For each reference service, including services ancillary to the reference services, the access arrangement specifies the reference tariff and the other terms and conditions on which these services will be provided.[29]

APTNT is to provide access to its reference services on the terms set out in its access arrangement, but may negotiate alternative terms and conditions at alternative prices with users. APTNT may also offer other non-reference services (negotiated services) which are not subject to regulation under the access arrangement. We may be called upon to determine the tariff and other conditions of access to services if an access dispute arises.[30]

APTNT's proposed reference service for the 2021–26 access arrangement is consistent with our November 2019 final decision on its July 2019 reference service proposal.[31] There will be two reference services:

- firm haulage
- interruptible haulage.

2.2 Reference tariff setting and reference tariff variation mechanism

Our draft decision includes decisions on the structure and levels of APTNT's reference tariffs (reference tariff setting) and the mechanism by which those tariffs can vary over the access arrangement period (reference tariff variation mechanism).

Reference tariff setting requires APTNT to explain how it allocates revenues and costs between reference services and other services, and how it determines different tariffs. This involves setting and applying the formula by which APTNT can recover its costs. Our draft decision is to approve APTNT's proposed structure of reference tariffs for the 2021–26 period. This includes APTNT's proposed tariff for the interruptible haulage reference service.

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28 NGR, modified rule 48(1)(c) and rule 47A(15).

29 NGR, modified rule 48(1)(e).

30 NGL, Chapter 6.

31 AER, *Final Decision, APT Pipelines (NT) Gas Distribution Determination 2021 to 2026, Reference Service*, published November 2019.

The reference tariff variation mechanism:

- permits building block revenues to be recovered smoothly over the access arrangement period, subject to any differences between forecast/actual demand
- accounts for actual inflation
- accommodates other reference tariff adjustments that may be required, such as for an approved cost pass through event
- sets administrative procedures for the approval of any proposed changes to reference tariffs.

Our draft decision is to accept APTNT's proposed reference tariff variation mechanism, although we do not accept all cost pass through definitions. Our draft decision updates the cost pass through events that will apply to the Amadeus Gas Pipeline in the 2021–26 period. This aligns the treatment of common risks between APTNT and our recent decisions. We have accepted the cost pass through events proposed by APTNT, with some definitional adjustments, and they are consistent with those we approved for APTNT's 2016–21 access arrangement.

2.3 Forecast demand

Under a weighted average price cap, demand is an important input into the derivation of APTNT's reference tariffs. In simple terms, tariffs are determined by dividing cost (as reflected in forecast revenue) by total demand (TJ/day). This means that a decrease in forecast demand has the effect of increasing tariffs, and vice versa. Forecast demand also affects the forecasts of opex and capex that form part of our decision on the total revenue requirement.

Our draft decision accepts APTNT's demand forecasts for the Amadeus Gas Pipeline. APTNT prepared its own demand forecasts for firm services based on historical trends and maximum capacity at delivery points for users with pre-existing gas transportation agreements; as well as gas validation and capacity assessment study to model the Amadeus Gas Pipeline's gas flows that have changed substantially since the Amadeus Gas Pipeline connected to the Northern Gas Pipeline in 2019.

Pre-existing agreements cover all available capacity for firm services for the 2021–26 access arrangement period.[32] APTNT forecasts that total demand to be up to 145 TJ/d at receipt points of the Amadeus Gas Pipeline.

Interruptible services, based on analysis of stakeholder interest and feedback is forecast to be up to 15 TJ/day.

APTNT submits that there is no new capacity for firm transportation service planned for the period 2021–22 to 2025–26. We are aware that APTNT is considering a market expansion with its key network user, Power and Water Corporation. We can consider an expansion

[32] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020. p. 27.

proposal as part of the revised proposal in making the final decision for the next access arrangement, or as part of an advanced capex determination under rule 80 of the NGR. Either way, we expect APTNT to engage stakeholders, similar to its established Consumer Reference Group, on any key changes in its circumstances prior to submitting its revised proposal.

3 Total revenue requirement

The total revenue requirement is a forecast of the efficient cost of providing gas transmission services over the access arrangement period. We determine annual revenue, and the total revenue requirement, in nominal terms. To do this, we take into account expected future inflation to determine nominal price levels in future periods. Our decision uses 10-year inflation expectations to convert revenues to nominal values.

Tariffs are derived from the total revenue requirement after consideration of demand for each tariff category. Our draft decision is that APTNT will continue to operate under an average price cap. This means the tariffs we determine (including the means of varying the tariffs from year-to-year) are the binding constraint across the 2021–26 period, rather than the total revenue requirement set in our decision.[33] Tariffs are adjusted each year using 'X factors' – the percentage changes in real weighted average tariffs from year-to-year – as explained further in section 3.3.

3.1 The building block approach

We employ a building block approach to determine APTNT's total revenue requirement. That is, we base the total revenue requirement on our estimate of the efficient costs that APTNT is likely to incur in providing its reference services. The building block costs, as shown in Figure 5, include:[34]

- return on the projected capital base (or return on capital) – to compensate investors for the opportunity cost of funds invested in the business[35]
- depreciation of the projected capital base (or return of capital) – to return the initial investment to investors over time[36]
- forecast opex – the operating, maintenance and other non-capital expenses incurred in the provision of network services
- revenue adjustments – including revenue increments/decrements resulting from the application of incentive schemes
- estimated cost of corporate income tax.

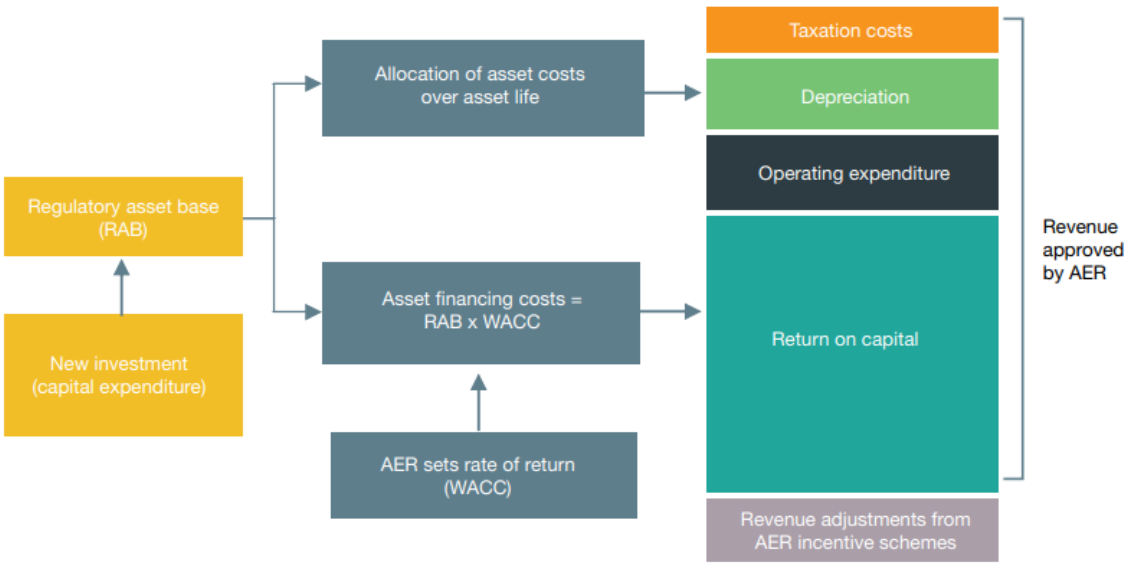
[33] Where actual demand across the 2021–26 access arrangement period varies from the demand forecast in the access arrangement, APTNT's actual revenue will vary from the revenue allowance determined in our decision. In general, if actual demand is above forecast demand, APTNT's actual revenue will be above forecast revenue, and vice versa.

[34] NGR, r. 76.

[35] Note that the forecast capex approved in our decisions affects the projected size of the capital base and, therefore, the revenue generated from the return on capital and depreciation building blocks.

[36] Ibid.

Figure 5 The building block approach to determining total revenue



Source: AER, *State of the Energy Market 2020,* June 2020, p. 123.

We use an incentive approach where, once regulated revenues are set for a five-year period, networks who keep actual costs below the regulatory forecast of costs retain part of the benefit. This incentive framework is a foundation of our regulatory approach and promotes the delivery of the National Gas Objective (NGO). Service providers have an incentive to become more efficient over time, as they retain part of the financial benefit from improved efficiency. Consumers also benefit when efficient costs are revealed and a lower cost benchmark is set in subsequent regulatory periods.

The following section summarises our draft decision, by building block, and provides our high level reasons and analysis.

3.2 Draft decision on total revenue

Our draft decision sets out a number of amendments to the building block inputs making up APTNT's proposal for a total revenue requirement (smoothed) of $93.6 million ($nominal). We expand on these in section 4.

Based on our assessment of the building block costs,[37] our draft decision determines a higher smoothed total revenue requirement of $93.8 million ($nominal).[38]

It follows that our draft decision requires amendments to the 2021–22 tariffs set out in APTNT's proposal, which is for a reduction in real tariffs of 43.4 per cent.[39] However, we

[37] Using the building block approach set out in NGR, r. 76.

[38] This is calculated by smoothing the unsmoothed building block revenue for the 2021–26 period, as set in this decision.

[39] The reason for the large decrease in tariffs in 2021–22 is due to the effect of a large increase in gas demand forecast (about 46 per cent) together with a decrease in the smoothed revenue of about 20 per cent.

accept APTNT's proposed 2021–26 tariff path, which provides for a reduction in real tariffs of 1.8 per cent in 2022–23, 2.1 per cent in 2023–24, 1.5 per cent 2024–25 and 1.8 per cent in 2025–26.

As a result of our higher total revenue requirement, compared to that proposed by APTNT, our draft decision is for a smaller real decrease in weighted average tariffs of 43.3 per cent in 2021–22. Section 3.3 discusses our approach to revenue smoothing and tariffs.

Table 1 sets out our draft decision on APTNT's total revenue requirement, by building block, for each year of the 2021–26 period, the total revenue after equalisation (smoothing) and the X factors for use in the tariff variation mechanism.

Table 1 AER's draft decision on APTNT's smoothed total revenue and X factors for the 2021–26 period ($million, nominal)

Building block	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Return on capital	5.8	5.6	5.4	5.2	5.0	27.0
Regulatory depreciation	1.1	1.6	1.8	2.0	2.2	8.7
Operating expenditure	9.8	10.2	10.4	10.4	10.6	51.4
Revenue adjustments	2.0	2.6	0.0	1.0	0.9	6.5
Net tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
Total revenue – unsmoothed	**18.8**	**20.1**	**17.6**	**18.5**	**18.7**	**93.7**
Forecast revenue – smoothed	**18.6**	**18.7**	**18.8**	**18.9**	**19.0**	**93.8**
X factors[a]	43.26%	1.79%	2.05%	1.52%	1.79%	n/a
Inflation forecast	2.37%	2.37%	2.37%	2.37%	2.37%	n/a
Nominal price change[b]	–41.92%	0.55%	0.27%	0.82%	0.55%	n/a

Source: AER analysis.

n/a: not applicable.

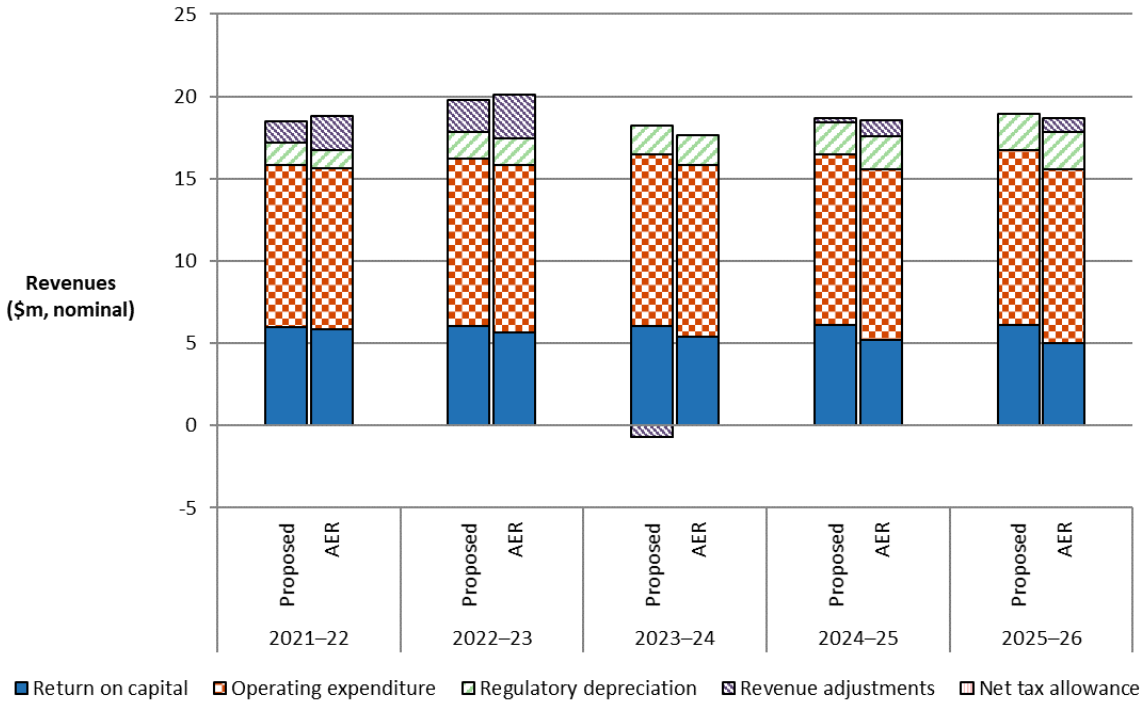
(a) Under the CPI–X form of control, a positive X factor is a decrease in price (and, therefore, in revenue).

The X factor for 2021–22 is indicative only. The draft decision establishes 2021–22 tariffs directly, rather than referencing a change from 2020–21 tariffs.

(b) The mathematical formula for a nominal price change under the CPI–X form of control is [(1+CPI)*(1–X factor)] – 1.

Figure 6 shows the effect of our draft decision adjustments to APTNT's proposed building blocks for the 2021–26 period. It shows reductions to the proposed building blocks for the return on capital, depreciation and increases to the revenue adjustments building block.

Figure 6 AER's draft decision and APTNTs' proposed building block revenue (unsmoothed) ($million, nominal)



Source: AER analysis.

Note: Revenue adjustments includes the Opex Efficiency Mechanism carryover amount.

3.3 Revenue smoothing and tariffs

After our assessment of APTNT's total building block revenue (unsmoothed), we need to determine the forecast revenue (smoothed) profile across the 2021–26 period.[40]

APTNT operates under an average price cap[41] as its tariff variation mechanism. This means we determine the average tariff change each year such that the net present value (NPV) of unsmoothed and smoothed revenue is equal across the 2021–26 period.[42] This average tariff change is known as the 'X factor'.

As part of the annual reference tariff variation process, we combine the X factors we have determined in our decision with actual inflation to create reference tariffs for the coming year.

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40 This process of smoothing revenues is described in the NGR as 'revenue equalisation'. See NGR, r. 92.

41 An average tariff cap is where the total revenue is divided by forecast energy capacity to establish the average tariff. For 2021–22 the established average tariff becomes the reference tariff which forms the starting point for adjusting the price path under the CPI–X tariff variation mechanism.

42 See Attachment 10 for information on the mechanics of the tariff variation mechanism.

This means that the average prices paid by consumers, and therefore the revenues received by APTNT, change with the X factor plus actual inflation.[43]

Table 2 presents our draft decision X factors compared to APTNT's proposal.

Table 2 Average tariff change (X factors) across the 2021–26 period — AER's draft decision and APTNT's proposal (per cent)

	2021–22	2022–23	2023–24	2024–25	2025–26
AER's draft decision					
X factor[a]	43.26%	1.79%	2.05%	1.52%	1.79%
Nominal price change	–41.92%	0.55%	0.27%	0.82%	0.55%
APTNT's proposal					
X factor[a]	43.43%	1.79%	2.05%	1.52%	1.79%
Nominal price change	–42.08%	0.56%	0.28%	0.83%	0.56%

Source: APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020; AER analysis.

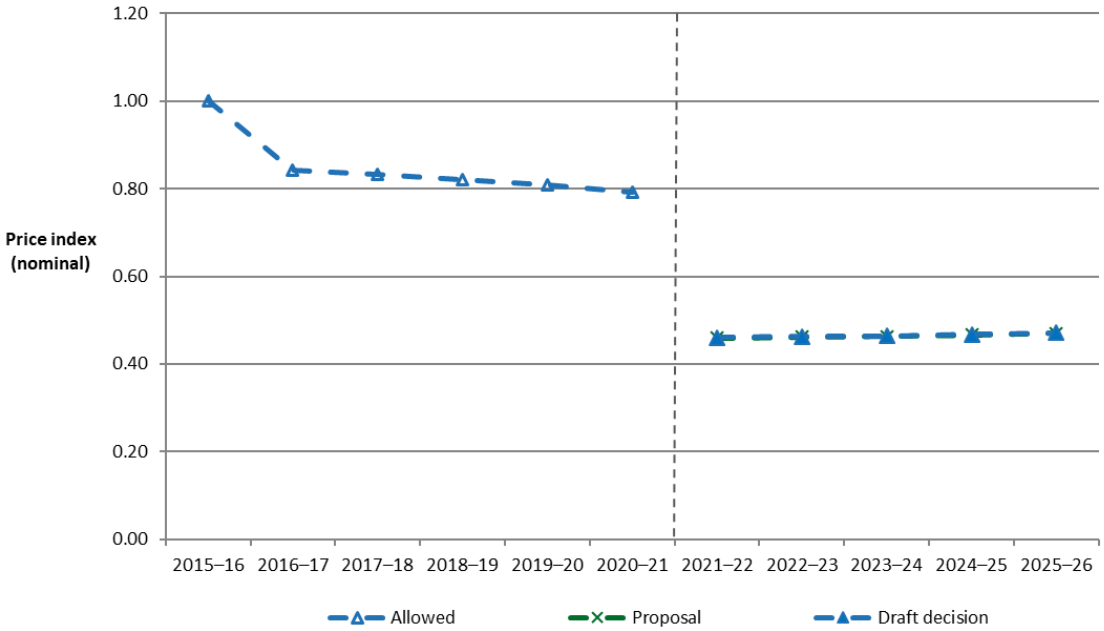
(a) Under the CPI–X form of control, a positive X factor is a decrease in price (and, therefore, in revenue). For example, a positive X factor of 1.79 per cent in 2022–23, as proposed by APTNT, means a real price decrease of 1.79 per cent that year. After consideration of inflation, this becomes a nominal price increase of 0.56 per cent. The X factor for 2021–22 is indicative only. The draft decision establishes 2021–22 tariffs directly, rather than referencing a change from 2020–21 tariffs.

Figure 7 shows indicative tariff paths for APTNT's reference services across the 2021–26 period. It compares APTNT's proposed tariff path with that approved previously for the 2016–21 period, and with this draft decision.[44] This provides a broad, overall indication of the average movement in tariffs across the 2021–26 period.

[43] Under the CPI–X form of control, a positive X factor represents a decrease in price (and, therefore, in revenue). Conversely, a negative X factor represents an increase in price (and, therefore, in revenue).

[44] The tariff path for 2016–26 uses actual inflation outcomes for 2016–20, and expected inflation for 2020–26.

Figure 7 Indicative reference tariff paths for APTNT's reference services from 2016 to 2026 (nominal index)



Source: AER analysis; AER, *Final Decision Amadeus Gas Pipeline access arrangement - PTRM – 2020–21 RoD update*, May 2020; APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020.

APTNT's proposed tariff path for 2021–26 suggests an initial decrease of 42.1 per cent in tariffs ($nominal) in 2021–22, followed by average annual increases of 0.56 per cent for the remaining years of the 2021–26 period.[45] Our 2021–26 draft decision provides for a slightly higher forecast smoothed revenue than APTNT's proposal, in line with our amendments to total unsmoothed revenue. As such, a decrease of 41.9 per cent to tariffs is required at the start of the 2021–26 period, followed by average annual increases of 0.55 per cent in the remaining four years of the period.

In choosing the smoothing profile for this draft decision we have balanced a number of competing objectives:

- equalising (in NPV terms) unsmoothed and smoothed revenue
- providing price signals that reflect the underlying efficient costs
- minimising variability in tariffs in 2020–21 and within the 2021–26 access arrangement period
- minimising the likelihood of variability in tariffs at the start of the 2026–31 access arrangement period
- recognising stakeholder preferences for a particular tariff path.

[45] APTNT's proposed nominal tariff path reflects its proposed expected inflation of 2.39 per cent.

Each of these points is discussed in turn.

First, we are satisfied that our draft decision tariff path for APTNT's 2021–26 access arrangement period achieves revenue equalisation, as required under the NGR.[46] As we have made a small increase to the unsmoothed revenue proposed by APTNT, we have set the tariff path so that the smoothed revenue is also increased to equalise with the unsmoothed building block costs.

Second, and related to the first point, our smoothing allows closer alignment of tariffs and costs. This aids the achievement of the NGO and the revenue and pricing principles, including through providing a price signal that facilitates efficient use of natural gas services.[47] Our draft decision tariff path shows a large decrease in the first year of the 2021–26 period, reflecting the lower unsmoothed building block costs and demand forecast.

Third, in setting the tariff path, we aim to minimise tariff volatility in 2020–21 and within the 2021–26 period. Our chosen tariff path reflects this objective, but also reflects the consideration we must give to other competing objectives. For instance, setting a flat tariff path from 2020–21 would better minimise within-period volatility, but would not achieve revenue equalisation.

Fourth, in setting the tariff path, we also aim to minimise the likelihood of tariff volatility between this access arrangement period and the next. We do not know with certainty what APTNT's efficient costs will be in 2026–27, or across the 2026–31 access arrangement period more generally. The unsmoothed building block costs for 2025–26 (the last year of the 2021–26 period) are the best available proxy. Hence, this objective requires minimising the divergence between the smoothed and unsmoothed revenues for the last year of the access arrangement period—for APTNT, this is 2025–26. If there are no significant changes in forecast costs from 2025–26 to 2026–27, this final year divergence gives us an estimate of the size of the tariff change at the start of the 2026–31 period. For this draft decision, this final year divergence is 1.5 per cent, which is within our preferred target range of +/-3 per cent. We note that if there are significant changes in costs at the start of the 2026–31 period, this might increase or decrease the required tariff change at that time.

Finally, our draft decision tariff path is consistent with APTNT's proposed tariff path of an initial large decrease to tariffs in the first year, followed by smaller annual decreases to tariffs in real terms for the remaining years of the 2021–26 period. Other stakeholders did not raise any concerns with the proposed profile.

We are satisfied that our draft decision tariff path reflects a balanced consideration of these competing objectives. We will review this smoothing profile for the final decision, if necessary.

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[46] NGR, r. 92(2). The revenue equalisation occurs in NPV terms, discounting the yearly cash flows at the rate of return to reflect the time value of money.

[47] NGL, ss. 23, 24.

4 Key elements of our draft decision on revenue

The components of our draft decision include the building blocks we use to determine the revenue that APTNT may recover from its users. The following sections summarise our revenue decision by building block. The attachments to this draft decision provide a more detailed explanation of our analysis and findings.

4.1 Capital base

The capital base roll forward accounts for the value of APTNT's regulated assets over the access arrangement period. The opening value of the capital base is used to determine the return on capital and return of capital (depreciation) building blocks. To calculate the capital base for a regulatory year within an access arrangement period, the opening value of the capital base is rolled forward by indexing it for inflation, adding any conforming capex, and subtracting depreciation and other possible factors (such as disposals).[48] Following this process, we also arrive at a closing value of the capital base at the end of each regulatory year of an access arrangement period.

We are required to make a decision on APTNT's opening capital base as at 1 July 2021 for the 2021–26 period, and APTNT's projected capital base for the 2021–26 period.

For this draft decision, we accept APTNT's proposed opening capital base of $125.3 million ($nominal) as at 1 July 2021.[49]

Table 3 summarises our draft decision on the roll forward of APTNT's capital base during the 2016–21 period.

[48] The term 'rolled forward' means the process of carrying over the value of the capital base from one regulatory year to the next.

[49] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 2 – Gas Transmission RFM,* July 2020.

Table 3 AER's draft decision on APTNT's capital base roll forward for the 2016–21 period ($million, nominal)

	2016–17	2017–18	2018–19	2019–20[a]	2020–21[b]
Opening capital base	115.8	119.4	119.7	122.6	130.6
Net capex[c]	5.3	1.9	4.7	9.9	4.4
Indexation of capital base[d]	1.7	2.3	2.1	2.3	–0.5
Less: straight-line depreciation[e]	3.5	3.8	4.0	4.2	4.4
Interim closing capital base	119.4	119.7	122.6	130.6	130.0
Difference between estimated and actual capex in 2015–16 capex					–3.7
Return on difference for 2015–16 capex					–1.0
Closing capital base as at 30 June 2021					**125.3**

Source: AER analysis.

(a) Based on estimated capex provided by APTNT. We will update the capital base roll forward for actual capex in the final decision.

(b) Based on estimated capex provided by APTNT. We expect to update the capital base roll forward with a revised capex estimate in the final decision, and true-up the capital base for actual capex at the next access arrangement review.

(c) Adjusted for actual consumer price index (CPI).

(d) We will update the capital base roll forward for actual CPI for 2020–21 in the final decision.

(e) Adjusted for actual CPI. Based on forecast capex.

We determine a projected closing capital base as at 30 June 2026 of $128.6 million ($nominal). This is $0.1 million ($nominal) higher than APTNT's proposed closing capital base at 30 June 2026 of $128.5 million ($nominal).[50] The main drivers of this increase is our draft decision on the expected inflation rate (section 4.2.3) and the forecast depreciation amount (section 4.3). Table 4 sets out the projected roll forward of the capital base for the 2021–26 period.

We accept APTNT's proposal to establish the opening capital base as at 1 July 2026 using the approved depreciation schedules based on forecast capex over the 2021–26 period.[51] These depreciation schedules will be adjusted for actual inflation outcomes over this period.

Attachment 2 sets out detailed reasons for our draft decision on APTNT's capital base.

[50] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020.

[51] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, pp. 36–37.

Table 4 AER's draft decision on APTNT's projected capital base roll forward for the 2021–26 period ($million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26
Opening capital base	125.3	126.5	126.9	127.6	128.1
Net capex[a]	2.3	2.0	2.4	2.6	2.7
Indexation of opening capital base	3.0	3.0	3.0	3.0	3.0
Less: straight-line depreciation	4.1	4.6	4.8	5.0	5.3
Closing capital base	**126.5**	**126.9**	**127.6**	**128.1**	**128.6**

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the PTRM, the capex includes a half-year WACC to compensate for the six month period before capex is added to the capital base for revenue modelling.

4.2 Rate of return and value of imputation credits

The return each business is to receive on its capital base (the 'return on capital') is a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the capital base.

We estimate the rate of return by combining the returns of two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest rate on its loans and give a return on equity to investors.

An accurate estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Conversely, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

We are required by the National Gas Law (NGL) to apply a rate of return instrument – the current 2018 Rate of Return Instrument (2018 Instrument) – to estimate an allowed rate of return.[52]

We have applied the 2018 Instrument and estimate a placeholder allowed rate of return of 4.64 per cent (nominal vanilla), which will be updated for our final decision on the averaging periods. APTNT's proposal adopts the 2018 Instrument.[53]

Our calculated rate of return, in Table 5, would apply to the first year of the 2021–26 access arrangement period. A different rate of return would apply for the remaining regulatory years

[52] NGL, Chapter 2, Part 1, division 1A, AER, *Rate of Return Instrument*, December 2018. See https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-instrument-2018/final-decision.

[53] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p. 37.

of the period. This is because we will update the return on debt component of the rate of return each year in accordance with the 2018 Instrument to use a 10-year trailing average portfolio return on debt that is rolled-forward each year. Hence, only 10 per cent of the return on debt is calculated from the most recent averaging period with 90 per cent from prior periods.

Our draft decision accepts APTNT's proposed risk free rate averaging period[54] and debt averaging periods because they comply with the conditions set out in the 2018 Instrument.[55]

Table 5 AER's draft decision on APTNT's rate of return (% nominal)

	Previous access arrangement period (2016–21)	APTNT's Proposal (2021–26)	AER's draft decision (2021–26)	Allowed return over the access arrangement period
Nominal risk free rate	2.57%	1.21%	0.91% [a]	
Market risk premium	6.5%	6.1%	6.1%	
Equity beta	0.7	0.6	0.6	
Return on equity (nominal post–tax)	7.1%	4.87%	4.57%	Constant (%)
Return on debt (nominal pre–tax)	5.56%[b]	4.75%	4.69% [a]	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	6.18%	4.79%	4.64%	Updated annually for return on debt
Expected inflation	2.39%	2.39%	2.37%	Constant (%)

Source: AER analysis; APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, pp. 37–39.

(a) Calculated using a placeholder averaging period of 20 business days ending 31 August 2020.

(b) Applies to the first year of the 2021–26 access arrangement period.

4.2.1 Debt and equity raising costs

In addition to providing for the required rate of return on debt and equity, we provide an allowance for the transaction costs associated with raising debt and equity. We include debt raising costs in the opex forecast because these are regular and ongoing costs. We include equity raising costs in the capex forecast because these costs are incurred once and would be associated with funding the particular capital investments.

[54] This is also known as the return on equity averaging period.

[55] AER, *Rate of Return Instrument*, December 2018, cll. 7-8, 23-25, 36.

For debt raising costs, our draft decision is to accept the method used in APTNT's proposal which uses an annual rate of 8.1 basis points per annum (bppa).[56] We have considered this annual rate and found that our alternative benchmark estimate (9.42 basis points) is not materially different from APTNT's proposal.

APTNT forecast zero equity raising costs in the post-tax revenue model (PTRM).[57] We have updated our estimate for this access arrangement period based on the benchmark approach using updated inputs. This results in zero ($2020–21) equity raising costs.

4.2.2 Imputation credits

Our draft decision applies an imputation credits ('gamma') value of 0.585, as set out in the binding 2018 instrument.[58] APTNT's proposal adopts the 2018 instrument for gamma.[59]

4.2.3 Expected inflation

In its 2021–26 proposal, APTNT adopted our current approach for estimating expected inflation.[60] Our draft decision estimate of expected inflation is 2.37 per cent for the access arrangement period. We are currently undertaking a review into the treatment of inflation in our regulatory framework, including the method likely to result in the best estimate of expected inflation. The final outcomes of this review are expected in December 2020. If we consider a different method for estimating expected inflation should be adopted, we intend to commence the consultation process under the NGR for amending the PTRM. We expect to apply amendments to the post tax revenue model (PTRM) (if any) in our final determination for the Amadeus Gas Pipeline in April 2021, unless a rule change proposal is required.

Whilst our inflation review is ongoing, we have modelled the potential outcome on APTNT's total revenue from applying a lower expected inflation rate of 1.87 per cent (as per our inflation review draft position). As an indicative estimate only, this has the effect of increasing our draft decision total revenue for APTNT by $1.9 million (2 per cent) for the 2021–26 period.

Further detail on our draft decision in regard to APTNT's allowed rate of return, expected inflation, debt and equity raising costs is set out in Attachment 3.

4.3 Regulatory depreciation

We use regulatory depreciation to model the nominal asset values over the 2016–21 period and set the depreciation building block as part of calculating the total revenue for APTNT. The depreciation amount is the net total of real straight-line depreciation (negative) and

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56 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020.

57 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020.

58 AER, *Rate of return instrument*, December 2018, cl. 27.

59 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, p. 21.

60 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p. 39.

annual inflation indexation (positive) on the projected capital base. We are required to make a decision on APTNT's proposed:[61]

- depreciation on the projected capital base
- depreciation schedule, which sets out the basis on which the depreciation is calculated.

Attachment 4 outlines our draft decision on APTNT's annual regulatory depreciation amount for the 2021–26 period. It also outlines our consideration of specific matters that affect the estimate of regulatory depreciation, including:

- the standard asset lives for depreciating new assets associated with forecast capex
- the remaining asset lives for depreciating existing assets in the opening capital base.

We determine a regulatory depreciation amount of $8.7 million ($nominal) for APTNT for the 2021–26 access arrangement period. This represents a reduction of $0.1 million (1.3 per cent) from APTNT's proposed regulatory depreciation amount of $8.9 million ($nominal).[62] This reduction is mainly driven by the longer remaining asset lives as at 1 July 2021 for the 'Pipelines' and 'Buildings' asset classes, which resulted from our amendments to the proposed reallocation of the leased assets in the RFM.

Our draft decision is to accept the following aspects of APTNT's proposal which are also relevant to the calculation of the regulatory depreciation amount for the 2021–26 period. Specifically, we accept:

- APTNT's existing asset classes, its straight-line depreciation method, and the standard asset lives used to calculate the regulatory depreciation amount
- APTNT's proposed weighted average method to calculate the remaining asset lives as at 1 July 2021. This method is a continuation of the approved approach used in the 2016–21 period and applies the approach as set out in our roll forward model (RFM)
- APTNT's proposed new asset class of 'Leased assets' with a remaining asset life of 11.4 years as at 1 July 2021.

We made determinations on other components of APTNT's proposal which also affect the forecast regulatory depreciation allowance. Specifically, they relate to:

- the opening capital base as at 1 July 2021 (section 4.1)
- expected inflation rate (section 4.2.3)
- forecast capex (section 4.4) including its effect on the projected capital base over the 2021–26 period.[63]

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61 NGR, rr. 59, 72, 76, 88, 89.

62 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 3 – Gas Transmission PTRM,* July 2020.

63 Capex enters the capital base net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in our PTRM. Our draft decision on the capital base also reflects our updates to the WACC for the 2021–26 period.

Table 6 sets out our draft decision on APTNT's forecast regulatory depreciation for the 2021–26 period.

Table 6 AER's draft decision on APTNT's forecast regulatory depreciation for the 2021–26 period ($million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Straight-line depreciation	4.1	4.6	4.8	5.0	5.3	23.8
Less: indexation on opening capital base	3.0	3.0	3.0	3.0	3.0	15.1
Regulatory depreciation	**1.1**	**1.6**	**1.8**	**2.0**	**2.2**	**8.7**

Source: AER analysis.

4.4 Capital expenditure

Capital expenditure (capex) refers to the capital costs and expenditure incurred in the provision of pipeline services.[64] This investment mostly relates to assets with long lives. APTNT recovers the costs of these assets through the return on capital and depreciation building blocks. In this way, APTNT recovers the financing cost and depreciation associated with these assets over the expected life of these assets.

Our draft decision includes an assessment of APTNT's actual capex in the 2016–21 period (which forms part of its opening capital base)[65] and its forecast capex for the 2021–26 period (which forms part of its projected capital base).[66]

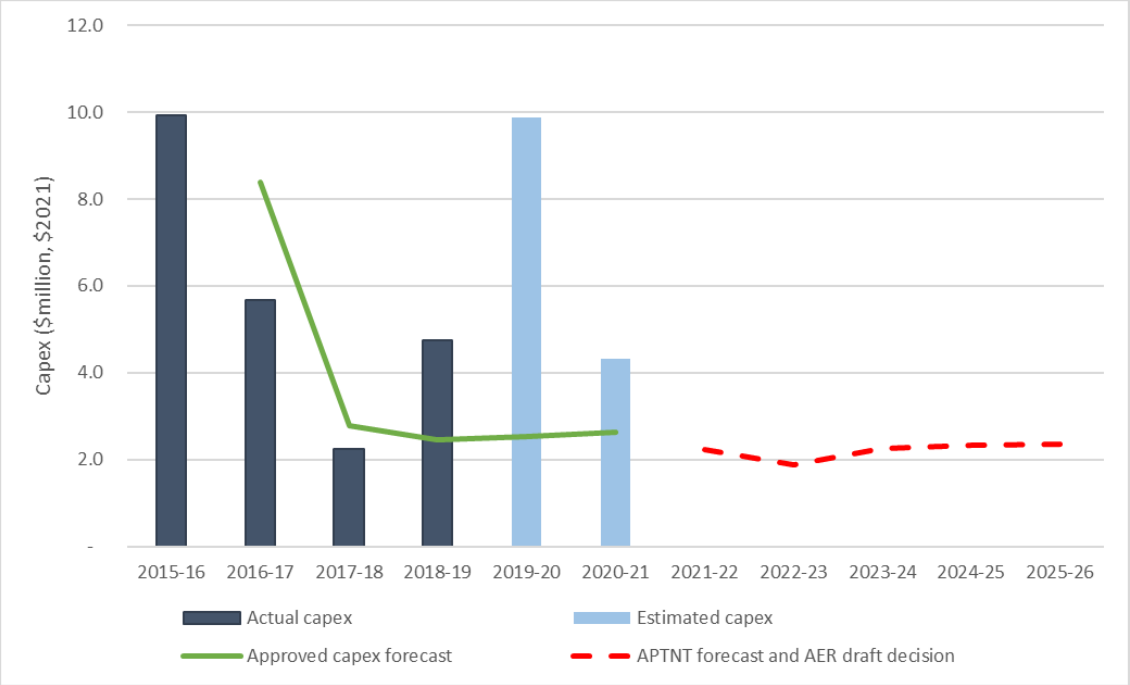
Figure 8 compares APTNT's past and proposed forecast capex, and the forecasts approved by us in our previous 2016–21 decision and this 2021–26 draft decision.

64 NGR, r. 69.

65 NGR, r. 77.

66 NGR, r. 78(b).

Figure 8 AER's draft decision compared to APTNT's past and proposed capex ($million, 2021–21)



Source: AER analysis.

4.4.1 Conforming capex for the 2016–21 period

APTNT expects to spend $26.3 million ($2020–21) for the 2016–21 period, 46 per cent more than the approved allowance. We approve this figure as conforming capex under rule 79(1) of the NGR. We will review APTNT's actual capex for 2019–20 in our final decision for the 2021–26 final decision, and 2020–21 as part of our review of APTNT's 2026–31 access arrangement.

In approving APTNT's submitted expenditure for the 2016–21 period, we considered the following factors relating to APTNT's overspend:

- APTNT submitted $4.9 million ($2020–21) for capitalised overheads where there was no AER approved allowance for this category
- the application of Australian accounting standard AASB16 leases resulted in a one-off adjustment of $4.1 million ($2020–21) in capitalised lease payments in 2019–20
- unforeseen project of $2.2 million ($2020–21) for the installation of pressure control equipment in Warrego due to interconnection to the Northern Gas Pipeline.

While we are of the view that capitalised overheads should have been forecasted and accounted for in our 2016–21 decision, we are satisfied that these costs, along with the above expenditure items are consistent with NGR and meet the requirements as conforming capex.

4.4.2 Conforming capex for the 2021–26 period

We approve $11.1 million ($2020–21) of APTNT's proposed total net capex for 2021–26 as conforming capex under r. 79(1) of the NGR, which is $14.4 million (58 per cent) below APTNT's actual spend for the 2016–21 period. However, for our final decision we request APTNT provide forecasts of the asset disposals and capitalised corporate overheads for the 2021–26 period for inclusion into the proposed capex. As such, our approved amount is considered a placeholder for APTNT pending further information.

APTNT's proposed capex are largely to undertake pipeline integrity and corrosion management, and replacement of equipment due to end of life or obsolescence. APTNT did not propose any expansion capex, although there is stakeholder interest in expanding the capacity of the Amadeus Gas Pipeline. A market expansion proposal under the access arrangement would have an impact on APTNT's capital base and can be considered by us as part of APTNT's revised proposal following consultation with consumers.

Table 7 shows approved capex for the 2021–26 access arrangement period by category.

Table 7 AER approved capital expenditure by category over the 2021–26 access arrangement period ($million, 2020–21)

Category	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Expansion	-	-	-	-	-	-
Replacement	1.4	1.5	1.8	1.6	1.3	7.6
Non-system	0.8	0.4	0.5	0.8	1.1	3.5
Gross total capex	**2.2**	**1.9**	**2.3**	**2.3**	**2.4**	**11.1**
Contributions	-	-	-	-	-	-
Asset disposals	-	-	-	-	-	-
Net total capex	**2.2**	**1.9**	**2.3**	**2.3**	**2.4**	**11.1**

Source: APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Reset RIN Workbook 1 – Forecast,* July 2020.

4.5 Operating expenditure

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses, incurred in the provision of pipeline services.

Our draft decision is to accept APTNT's proposal for a total opex forecast of $47.9 million ($2020–21), including debt raising costs, for the 2021–26 access arrangement period, as submitted to us on 15 July 2020.[67] Our alternative estimate is higher than APTNT's proposal.

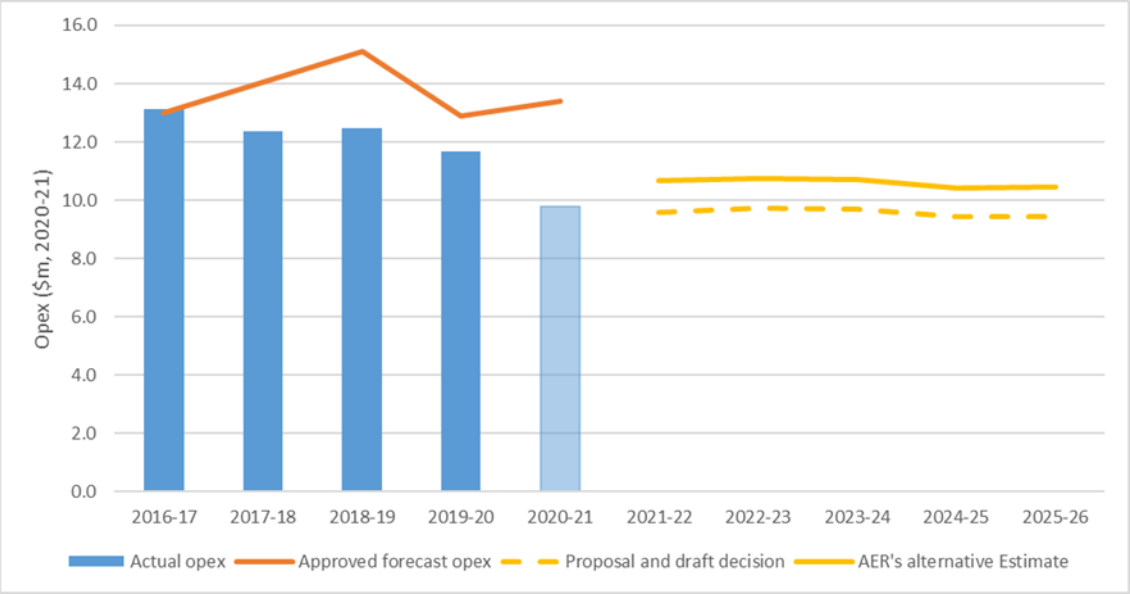
[67] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, p. 42.

Therefore, we are satisfied APTNT's forecast opex meets the opex criteria[68] and the requirements for forecasts and estimates.[69]

Our draft decision represents a 19.4 per cent decrease compared to APTNT's opex expenditure in the 2016–21 access arrangement period. It is 30 per cent lower than the approved opex forecast for the 2016–21 access arrangement.[70]

Figure 9 compares the opex forecast we approve in this draft decision (equal to APTNT's proposal) to the forecast we approved for 2016–21 and APTNT's actual opex in that period. The figure shows our approved opex forecast for 2021–26 is in-line with estimated expenditure in 2020–21.

Figure 9 Our draft decision compared to APTNT's 2016–21 opex and proposed opex ($million, 2020–21)



Source: APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 5 – Operating Expenditure Model,* July 2020; AER analysis.

Note: Includes debt raising costs.

Table 8 sets out APTNT's proposal, our alternative estimate and the differences between them.

[68] NGR, r. 91.

[69] NGR, r. 74.

[70] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 5 – Operating Expenditure Model,* July 2020; AER analysis.

Table 8 AER's alternative estimate compared to APTNT's opex proposal for the 2021–26 access arrangement period ($million, 2020–21)

	APTNT proposal	AER alternative estimate	Difference
Based on reported opex in 2017–18	61.0	61.9	0.9
Efficiency adjustment	0.0	0.0	0.0
Base year adjustments	-2.2	-2.2	0.0
2017–18 to 2020–21 increment	-3.3	-3.3	0.0
Remove category specifics	-17.7	-4.1	13.6[71]
Output growth	0.0	0.0	0.0
Price growth	0.4	0.1	-0.2
Productivity growth	-0.6	-0.8	-0.2
Step changes	0.6	0.0	-0.6
Category specific forecasts	9.3	1.1	-8.2
Debt raising costs	0.3	0.3	0.0
Total opex	**47.9**	**53.1**	**5.2**

Source: APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Attachment 5 – Operating Expenditure Model,* July 2020; AER analysis.

Note: Numbers may not add up due to rounding.

The key differences between APTNT's opex proposal and our alternative estimate are:

- we have not included corporate costs as a category specific forecast as proposed by APTNT's in our alternative estimate. We have not removed this cost from base opex as we do not consider it warrants being treated as a category specific forecast
- for labour price growth, we have not used the proposed Deloitte Access Economics (Deloitte) forecast undertaken in 2019. We have used the most up-to-date forecast prepared by Deloitte which factors in the impacts of the COVID–19 pandemic
- we have not included the step change proposed by APTNT in our alternative estimate as we do not consider it is material.

4.5.1 Efficiency carryover mechanism for the 2021–26 period

An efficiency carryover mechanism (ECM) is intended to provide a continuous incentive for service providers to pursue efficiency improvements in opex, and provide for a fair sharing of these between service providers and network users.

[71] We note APTNT, in removing category specific costs from base opex, removed forecast opex from 2020–21. Our standard approach is to remove reported costs from the base year (2017–18).

Our draft decision is to approve a carryover amount totalling $6.2 million ($2020–21) from the application of the ECM in the 2016–21 access arrangement period. This is $3.4 million ($2020–21) more than the proposal APTNT submitted to us on 15 July 2020, which was $2.8 million ($2020–21).[72] The key driver of our draft decision to approve a higher carryover amount than proposed by APTNT is that we have changed the ECM formula to reflect the chosen base year (2017–18) for our opex forecast. We note that although using 2017–18 as the base year increases ECM carryovers this would almost be entirely offset by the lower opex forecast derived using 2017–18 as the base year. Table 9 shows our draft decision on the carryover amounts APTNT accrued in relation to the Amadeus Gas Pipeline during the 2016–21 period.

Table 9 AER's draft decision on carryover amounts compared to APTNT's proposal for the 2021–26 period ($million, 2020–21)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
AER's draft decision	2.0	2.5	0.0	0.9	0.8	6.2
APTNT's proposed carryover (as at 15 July 2020)	1.3	1.9	-0.7	0.2	0.0	2.8
Difference	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**	**3.4**

Source: APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Reset RIN Workbook 3 – ECM,* July 2020; AER analysis.

Note: Numbers may not add up due to rounding.

4.6 Corporate income tax

Our decision on APTNT's total revenue includes the estimated cost of corporate income tax for the 2021–26 period.[73] Under the post-tax framework, a corporate income tax amount is calculated as part of the building blocks assessment using our PTRM. This allows APTNT to recover the estimated cost of corporate income tax during the 2021–26 period.

We accept APTNT's proposed approach to calculate its forecast cost of corporate income tax. APTNT has used our PTRM for gas pipeline service providers which implemented the findings from our 2018 tax review.[74]

We determine an estimated cost of corporate income tax of zero for APTNT in the 2021–26 period, consistent with APTNT's proposal. We expect APTNT's to incur a forecast tax loss over the 2021–26 access arrangement period.[75] For this reason, our draft decision is to set out the cost of corporate income tax at zero for the 2021–26 period. We have determined that $3.2 million in tax losses as at 30 June 2026 will be carried forward to the 2026–31

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72 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement – Reset RIN Workbook 1 – Forecast,* July 2020.

73 NGR, r. 76(c).

74 AER, *Final report: Review of regulatory tax approach*, December 2018.

75 A forecast tax loss occurs when the forecast assessable income is lower than the forecast tax expense. In this event no tax is payable. Any residual amount of tax loss will be carried forward over to future access arrangement periods to offset future taxable income until the tax loss is fully exhausted.

access arrangement period where it can be used to offset future tax liabilities. The forecast tax losses arises because APTNT's forecast tax expenses will exceed its revenue for tax assessment purposes over the 2021–26 access arrangement period. This is mostly due to the implementation of our findings from the 2018 *Review of the regulatory tax approach*, where the introduction of immediate expensing of capital expenditure (capex) and diminishing value method of tax depreciation have resulted in an increase of forecast tax depreciation.[76]

We accept APTNT's proposed standard tax asset lives for all of its existing asset classes as they are broadly consistent with the tax asset lives prescribed by the Australian Tax Office's (ATO) taxation ruling 2020/3.[77]

We also accept APTNT's proposed weighted average method to calculate the remaining tax asset lives as at 1 July 2021. This method is a continuation of the approved approach used in the 2016–21 access arrangement period and applies the approach as set out in our RFM. We accept APTNT's proposed remaining tax asset life of 11.4 years for the new asset class of 'Leased assets'.

Further, we accept the proposed opening TAB as at 1 July 2021, since we accept APTNT's approach for establishing the opening TAB including its actual and estimated capex over the 2016–21 period.

Our adjustments to the return on capital (sections 4.1, 4.2 and 4.4), and the regulatory depreciation (section 4.3) building blocks affect revenues, which in turn impacts the tax calculation.

[76] The third key finding from the 2018 tax review relates to capping tax lives for gas assets to 20 years. However, APTNT has historically assigned tax asset lives of 20 years or less to its asset classes, hence this change does not affect APTNT.

[77] ATO, *Taxation Ruling TR2020/3 – Income tax: effective life of depreciating assets (applicable from 1 July 2020*), p. 181.

5 Incentive schemes to apply for 2021–26

5.1 Efficiency carryover mechanism

As noted in section 4.5.1 an efficiency carryover mechanism (ECM) is intended to provide a continuous incentive for service providers to pursue efficiency improvements in opex, and provide for a fair sharing of these between service providers and network users.

Our draft decision is to approve the application of an ECM to APTNT in the 2021–26 period. We have made minor amendments to APTNT's proposed ECM in this draft decision to be consistent with version 2 of the efficiency benefit sharing scheme (EBSS) for electricity service providers and other gas distribution businesses.[78] In particular, we have changed the ECM formula to reflect the chosen base year (2017–18) for our opex forecast.

Attachment 8 sets out our ECM draft decision in detail, including our revisions to APTNT's proposed ECM.

[78] AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

6 Non-tariff components

The non-tariff components are as follows:

- the terms and conditions for the supply of reference services
- queuing requirements – a process or mechanism for establishing an order of priority between prospective users of spare and/or developable capacity
- extension and expansion requirements – the method for determining whether an extension or expansion is a part of the covered pipeline and the effect this will have on tariffs
- capacity trading requirements – the arrangements for users to assign contracted capacity and change receipt and delivery points
- change of receipt or delivery point by the user – the process or mechanism for changing a user's receipt or delivery point
- a review submission date and a revision commencement date.

Together, we refer to these as the non-tariff components of the access arrangement. Attachment 11 sets out our draft decision on the non-tariff components in further detail.

APTNT is proposing amendments to its Amadeus Gas Pipeline's terms and conditions. The majority of these amendments are minor (such as amendments updating definitions, reflecting recent regulatory changes and removing obsolete clauses/definitions). One of the more substantive proposed amendments is the addition of an interruptible service to its list of pipeline services.[79] [80] An interruptible service refers to services that are provided on an as available basis, where capacity usually available for the firm service is not consumed and made available to other pipeline users. This is an important new service on the Amadeus Gas Pipeline because capacity for firm transportation services is fully contracted to existing pipeline users.[81]

APTNT has actively engaged with its customers on the design of the interruptible service for inclusion in the 2021–26 access arrangement and stakeholders have largely supported the introduction of the new service and corresponding tariff.[82] During the stakeholder submission phase of the proposed access arrangement for the Amadeus Gas Pipeline, we did not receive any concerns from stakeholders over the introduction of an interruptible service on the pipeline.

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79 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020, Section 3 – Terms and conditions applying to the reference services, cll 7–13.

80 This additional service is included in our November 2019 reference service proposal decision; AER, *Final Decision, APTNT (Amadeus) 2021–26 Reference Service Proposal*, November 2019.

81 APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020.

82 APTNT, *Amadeus Gas Pipeline Consumer Reference Group Roundtable 3a Presentation*, 20 April 2020. The material on APA's consumer engagement for the 2021–26 access arrangement revision can be found at: https://www.apa.com.au/about-apa/our-projects/amadeus-gas-pipeline-access-arrangement.

The new clause on the nominations for interruptible service appears reasonable and we consider the proposed changes do not change the risk allocation between Amadeus Gas Pipeline and users in the 2021–26 access arrangement proposal as compared to the current period access arrangement.

Our draft decision is to approve all of the amendments that APTNT has proposed to the Amadeus Gas Pipeline terms and conditions.[83]

[83] APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal,* July 2020.

A List of submissions

This draft decision has been made with regard to submissions received from the following stakeholders on APTNT's 2021–26 access arrangement proposal.

Stakeholder	Date
Energy Matrix Group	25 August 2020
Power and Water Corporation Northern Territory	24 August 2020

Shortened forms

Shortened form	Extended form
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGP	Amadeus Gas Pipeline
APTNT	APT Petroleum Pipelines Northern Territory
capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
EBSS	Efficiency benefit sharing scheme
ECM	Efficiency carryover mechanism
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	Operating expenditure
PTRM	Post-tax revenue model
RFM	Roll forward model
TAB	Tax asset base
WACC	Weighted average cost of capital