DRAFT DECISION
APA VTS Australia
Gas access arrangement
2018 to 2022

Attachment 10 – Reference tariff setting

July 2017

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: 1300 585 165

Email: AERInquiry@aer.gov.au

Note

This attachment forms part of the AER's draft decision on the access arrangement for APA VTS Australia for 2018-22. 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 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

Attachment 13 - Demand

Contents

Shortened forms

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

10 Reference tariff setting

An access arrangement must set out how a service provider intends to charge for reference services. The service provider's access arrangement information must include an explanation of the basis for setting reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs.[1]

We assessed APA's proposed reference tariffs against the provisions of the NGR[2] and the NGL[3].

This attachment describes our assessment of the reference tariffs proposed by APA and sets out the revisions required by this decision. The AER's assessment focuses on the design and structure of tariffs and the allocation of costs to services.

10.1 Draft decision

We accept the fundamental features of APA's proposed reference tariffs for the VTS, including tariff design, the zonal structure, the basis for charging users and the general approach to allocating costs.

However, we require APA to recalculate its reference tariffs so that the levels of the tariffs reflect our draft decision on forecasts of demand, capex, opex and rate of return.

10.2 APA's proposal

In January 2017 APA submitted its access arrangement proposal for the VTS for 2018–22. On 15 May 2017, it submitted revisions to its capital and operating expenditure forecasts for the Western outer ring main (WORM) project. These had flow-on implications for the levels of reference service tariffs compared to those submitted in January. Otherwise, the design, structure, basis for charging users and the general approach to allocating costs reflect its January 2017 proposal.

APA proposed a single reference service, which is the tariffed transmission service reference service. All costs allocated to the VTS are allocated to this service (in the form of reference tariffs). APA did not propose any substantive changes to its methodology for allocating costs to its reference tariffs. The methodology proposed is essentially the same as that which applied in the 2013–17 access arrangement period but with the following changes:

- variation of the allocation of costs to the South West Pipeline (SWP), such that 81.3 per cent of costs are allocated directly to the SWP and 18.7 per cent are allocated on a postage stamp basis across all users of the VTS. This differs from the current

---

1 NGR, r. 48(1)(d)(i); r. 72(1)(j).
2 NGR, rr. 93, 95 and 96.
3 NGL, ss. 23 and 24.

access arrangement, where 58.5 per cent of the SWP direct costs are allocated to the SWP and the remaining 41.5 per cent is allocated across all withdrawal tariffs on a postage-stamp basis.

- Allocating forecast expenditure of the westbound expansion of SWP to the Lochard underground storage at Iona refill charge (also known as the Iona storage refill tariff). This means the Iona storage refill tariff and the Dandenong refill tariff are no longer aligned (APA proposed the Iona refill tariff of 7.9c/GJ and Dandenong refill tariff of 5.4c/GJ).

10.2.1 Reference Tariffs

APA proposed two separate classes of users (injectors and withdrawers). APA proposed to recover its costs from these users through injection and withdrawal tariffs. These are the same as those that apply in the current access arrangement.

Injection tariffs

APA's proposed injection tariffs are calculated to recover the cost of the injection pipeline from the peak flows carried through the pipeline. APA proposed five injection zones supplying the VTS:

- Longford
- Port Campbell
- Pakenham
- Dandenong
- Culcairn.[4]

These are the same injection zones as per the current access arrangement. A separate tariff applies to each injection zone. The injection charge is levied on the ten peak injection days over the winter at each injection zone.

Withdrawal tariffs

APA's proposed withdrawal tariffs are calculated to recover the cost of transmission from the injection pipeline to the user. APA proposed 25 withdrawal zones with up to three tariff classes within each withdrawal zone:

- Tariff-V applies to customers consuming less than 10TJ per annum.
- Tariff-D applies to customers with annual consumption greater than 10TJ, or a maximum hourly demand greater than 10 GJ.

[4] APA, *VTS Revision Proposal submission*, 3 January 2017, p. 220

- A cross-system tariff applies in addition to the applicable injection and withdrawal tariffs for carriage through the Metro zone. It applies for withdrawals off the injection pipeline that are linked to injections at an unrelated injection point.

There are two specific withdrawal zones servicing storage facilities, which have only one tariff class, this being the 'refill tariff'.[5]

Different tariff rates apply in each zone and for tariff-D and tariff-V volumes, which reflect different uses of the system by users. The rates applying to each withdrawal zone reflect the use of system assets to deliver gas to that zone, the distance of the zone from the injection source and the volume withdrawn in the zone. Withdrawal tariffs apply to the actual quantity of gas delivered over the calendar year.

Storage refill tariffs

APA proposed two storage refill tariffs for gas injected into storage facilities. There are two storage facilities in the VTS:

- Dandenong LNG— used primarily for shaving of peak demand
- Lochard Underground storage facility at Iona (Iona storage)— generally used during the winter period to supplement supply.

Other tariffs

In addition to the above reference tariffs, APA also proposed tariffs that reflect specific costs relating to the use of its transmission system. These include:

- Rebates for reference tariffs matched to injections and withdrawals where users do not utilise the entire injection or withdrawal pipelines. The matched rebates are designed to convert relevant tariffs into cost-reflective tariffs which reflect the direction of supply. For example rebates are matched to injection tariffs for zones close to Longford, including Latrobe, Lurgi, Tyres and West Gippsland.
- Prudent discounts to minimise the threat of bypass. APA has three prudent discounts in the current access arrangement period, which APA proposed to continue. These include:
    - Maryvale zone discount
    - Western zone discount
    - Dandenong bypass tariff.[6]

The tariff structures and zones proposed by APA including the proposed injection tariffs, withdrawal tariffs, refill tariffs, cross-system tariffs, matched rebates and prudent discounts already apply in the current access arrangement. APA proposed only to

---

[5] APA, *VTS Revision Proposal submission*, 3 January 2017, p. 221

[6] APA, *VTS Revision Proposal submission*, 3 January 2017, p. 237–240

change the tariff levels to reflect its proposed costs for the 2018–22 access arrangement.

APA proposed to smooth its revenue over the access arrangement period so that its proposed increase in revenue does not lead to a large increase in tariffs in the first year. To achieve this APA has proposed a tariffs glide path of CPI–X over the 2018–22 access arrangement. The proposed X-factors applies to all injection and withdrawal tariffs—with the exception of the refill tariffs, cross-system tariffs, NSW export and Warrnambool and Koroit withdrawal tariffs.

Table 10-1 below sets out APA's proposed X-factors for the 2018–22 access arrangement period.

Table 10-1 APA proposed X-factors

	2019	2020	2021	2022
x-factors	-6.0%	-6.0%	-6.0%	-6.0%

Source: APA, *VTS Revision Proposal submission*, 3 January 2017, p. 216

10.2.2 APA's standard cost allocation methodology

APA's proposed cost allocation methodology allocates costs to each user in proportion to their use of the transmission system assets and the costs of the assets used to transport gas. A user who transports gas through a short section of the VTS pays a lower amount than one who transports gas through a longer section of the pipeline system.

APA's tariffs recover both APA's direct costs and indirect costs. Direct costs include:

- The return on capital
- Depreciation
- Direct operating and maintenance costs.

Indirect costs include:

- Capital costs of non-system assets
- General and administrative operating and maintenance costs
- Benefits sharing carry over
- Rolled out costs including the Interconnect (76 per cent), SWP (18.7 per cent) and Brooklyn/Corio (100 per cent).

APA's injection tariffs recover the direct costs based on transporting gas along the injection pipeline. Indirect costs are not allocated to injection pipelines.

Withdrawal tariffs recover the direct costs of transporting the gas from the end of the injection pipeline along the withdrawal pipeline to the off-take points as well as a

proportion of APA's indirect costs. Indirect costs are allocated to withdrawal tariffs on a postage stamp basis, that is, across all users of the VTS.

Cost allocation methodology of direct costs to withdrawal tariffs

Direct costs are allocated to tariffs by using the optimised replacement cost (ORC) method and a forecast flow of gas. The ORC apportions APA's direct costs to each asset. By using the ORC, the cost allocation is not impacted by the asset's age because there is no depreciation in determining the proportional allocation of costs to pipeline segments. The rationale is that no one user bears an over-burden of paying for a new, replacement pipeline. The costs apportioned to the assets are allocated to users based on the forecast flow of energy through the pipelines/assets. The flow path of gas from each injection source to each withdrawal point is determined by the pipeline distances from the injection source to the withdrawal point using a sequence that satisfies those withdrawal meters closest to the injection source first.

The flow path of gas calculates an allocation of the direct costs to each off-take meter. Off-take meters are subsequently grouped into zones, with zonal withdrawal tariffs derived by grouping the individual meters into zones and averaging the costs of the meters within the zone.

Cost allocation of direct costs to injection tariffs

Injection charges recover the direct costs allocated to the injection pipeline assets. Discounted tariffs (that is, matched rebates) are offered to injectors who can match a withdrawal to zones where the full injection pipe is not utilised. The matched rebate is determined by calculating the proportion of injection assets (kilometres of pipeline) actually used by each withdrawal zone off the injection pipeline as a percentage of the total injection assets.

Indirect costs are not allocated to injection tariffs but are instead allocated to withdrawal tariffs on a postage stamp basis. Table 10-2 sets out APA's cost allocation method by cost category.

Table 10-2 Cost allocation method by cost category

Cost category	Allocation method
System assets (return on and of capital, tax liability) (excluding the rolled out SWP and Interconnect assets)	Physical path
Direct operating costs	Physical path
SWP residual costs	Direct to zone
Cost rolled-in under system wide benefits (Interconnect assets)	Postage stamp
Interconnect one residual costs	Direct to zone
Non-system assets (return on and of assets)	Postage stamp
General and administrative operating costs	Postage stamp
Return on working capital	Postage stamp
Benefit sharing allowance and first carry over amount	Postage stamp
Capital raising costs	Physical path (system assets), postage stamp (non-system assets)
Debt raising costs	Postage stamp

Source: APA, *VTS Revision Proposal submission*, 3 January 2017, p. 222

Exceptions to the standard cost allocation methodology

APA proposed a different cost allocation methodology for the South West Pipeline (SWP) and Interconnect compared to its standard cost allocation methodology. APA submitted that applying a different cost allocation for the SWP and Interconnect is consistent with APA's current access arrangement and reflects the role of the original investment for the SWP.[7]

For the 2018–22 access arrangement APA proposed that 81.3 per cent of costs are allocated directly to the SWP and 18.7 per cent are allocated on a postage stamp basis across all users. [8]

For the Interconnect, APA proposed to maintain its allocation of 24 per cent of costs directly to the Interconnect, with the remaining allocated on a postage stamp basis across all users. The 24 per cent allocation relates to the original pipeline and facility investments between Barnawartha and Culcairn.[9]

7 APA, *VTS Revision Proposal submission*, 3 January 2017, pp. 225-226

8 APA, *Response to AER information request IR011*, 29 May 2017

9 APA, *VTS Revision Proposal submission*, 3 January 2017, p. 227

The proposed allocation of all incremental investment as a result of the Victorian Northern Interconnect (VNI) expansion has been allocated 100 per cent to the Culcairn withdrawal tariff.[10]

Victorian Northern Interconnector cost recovery

APA proposed that the costs of the VNI expansion will be recovered via an increase in the Culcairn withdrawal tariff (also called the NSW export tariff). The VNI will take gas from Victoria to New South Wales and Queensland and will be used by shippers and retailers to supply gas in northern regions and for overseas markets. The proposed Culcairn withdrawal tariff is $1.0634.[11] This is an increase of approximately 33 per cent over the current $0.80 GJ Culcairn withdrawal tariff.

Western outer ring main (WORM) cost recovery

In APA's tariff model, submitted as part of its January 2017 access arrangement proposal, APA proposed a new asset zone for the easement purchase costs for the Western outer ring main (WORM) project. It proposed to purchase a land easement as a pre-cursor to the WORM being built and recover the costs as per its standard cost allocation methodology.

However, in its amended May 2017 proposal, it included the full costs of WORM construction within the 2018–22 access arrangement period on top of the easement purchase.

10.3 Assessment approach

In a full access arrangement, a service provider is required to specify for each reference service the reference tariff and proposed approach to setting the reference tariffs. This is done by:

- explaining how revenues and costs are allocated, including the relationship between costs and tariffs[12]
- explaining how the tariffs have been designed to generate the portion of referable total revenue from each reference service and from each user, or class of users[13]
- explaining and describing any pricing principles it employed.[14]

We assess APA's proposed reference tariffs against the provisions of the NGR and the NGL, in particular, r.93, r.95 and r.96 of the NGR. We must also take into account the revenue and pricing principles[15] and the requirement for consistency with the NGO[16].

---

10 APA, *Response to AER information request IR011*, May 29 2017

11 APA, VTS Supplementary access arrangement submission revised for Western Outer Ring Main (WORM), 15 May 2017, p. 45

12 NGR, rr. 93(1)–(2), 72(1)(j)–(l).

13 NGR, r. 95(1).

14 NGR, r. 72 (1)(j)(ii).

Rules 93 and 95 require that reference tariffs for reference services be designed to reflect the current and expected future demand, and the allocation of costs between reference and non-reference services. Where we do not accept the proposed reference tariffs, we must determine the initial reference tariffs to apply for each reference service.

In our assessment of the proposed reference tariff, we reviewed the access arrangement information[17] and access arrangement proposal[18] submitted by APA for the 2018–22 access arrangement review. We also had regard to stakeholder submissions on APA's proposed tariffs. In particular, we reviewed and assessed information relating to the following matters:

- proposed tariff zones and tariff design—whether the proposal is consistent with the tariff structures contained in APA's current access arrangement and whether the proposal results in cost reflective tariffs
- the WORM project—the cost impact of this proposal on tariffs
- the SWP Interconnect project—the impact of this proposal on cost allocation
- storage refill tariffs
- VNI project—considered if costs are to be recouped from Culcairn withdrawal tariff customers only.

10.3.1 Interrelationships

The forecast capex for the VNI has a bearing on the tariffs APA VTS will charge users. Where VNI capex is included in the regulatory asset base it will be recovered over the life of the asset by customers. The demand or volume of gas to be transported via the VNI also affects tariffs. Capex and opex forecasts along with the rate of return and depreciation also impact the overall approved APA revenue requirement (and tariffs) over the access arrangement period. This draft decision takes those inputs into account.

10.4 Reasons for draft decision

10.4.1 Reference tariff structures

We accept APA's proposed tariff design, the zonal structure and the basis for charging users for the VTS' 2018–22 access arrangement. These tariff structures are the same as the current 2013–17 access arrangement. We consider the level of complexity in

---

15 NGL, s 28(2); s. 24.

16 NGR, r 100(a); NGL, s. 23.

17 APA, *Victorian Transmission System Access Arrangement Information Effective 1 January 2018 to 31 December 2022*, January 2017, pp. 28–35.

18 APA, *VTS Revision Proposal submission*, 3 January 2017 pp. 18–21, 242–245.

the design and structure of the proposed tariffs is at least offset by their high degree of cost reflectivity.

We have approved the proposed standard cost allocation methodology, which is substantially the same as that in the current access arrangement, but with some changes to cost recovery for the following:

- South West Pipeline
- Storage refill
- Victorian Northern Interconnector
- Western Outer Ring Main.

However, we require APA to recalculate its reference tariffs so that the levels of the tariffs reflect our draft decision on demand forecasts, capex forecast, opex forecast and rate of return.

We also consider the cross-system tariff should be charged in addition to the refill tariff to users who ship gas from Longford or Culcairn into Iona storage and then on to the Sea Gas pipeline. This differs from APA's proposal to charge only the refill tariff for gas put into storage. We invite submissions from stakeholders on this aspect of our draft decision.

10.4.2 Cost allocation methodology

APA proposed a highly detailed and cost reflective allocation procedure, which is substantially the same as that applied in the 2013–17 access arrangement, but with the following exceptions:

- a change in the proportion of direct costs allocated to the SWP, so that 81.3 per cent of direct costs are allocated to the SWP and the remaining on a postage stamp basis.
- an increase to the Iona storage refills charge so that it is no longer aligned with the Dandenong storage refill charge.

We accept APA's standard cost allocation methodology. We consider it strikes a reasonable balance between cost reflectivity and complexity.

As noted above APA's cost allocation methodology for the SWP and Interconnect differs to its standard cost allocation methodology. This reflects the role of the original investment for these assets. In earlier access arrangements, the ACCC determined that some or all of the costs of the SWP and the Interconnect assets could be attributed to all users of the VTS system rather than to specific users of discrete pipelines within the system.[19]

[19] AER, *Draft decision revised access arrangement by GasNet Australia Ltd for the principal transmission system 14 Nov 2007*, September 2012, Part 2, p.298.

We accept APA's proposal to continue to allocate 24 per cent of the Interconnect's direct costs to the asset and to recover the remaining direct costs on a postage stamp basis across all users. This is consistent with APA's current access arrangement.

We accept APA's proposed change to allocate 81.3 per cent of direct costs to the SWP and the remaining 18.7 per cent on a postage stamp basis. This is discussed in detail below under South West Pipeline.

We accept APA's proposed increase to the Iona storage refill charge. However, we consider that the cross system charge should apply in addition to the storage refill charge for those users transporting gas from Longford and Culcairn into Iona storage on non-peak days and then on to the Sea Gas pipeline. See further detail below under storage refill tariffs.

Western Outer Ring Main

We approve APA's proposed allocation of WORM costs and note that it is consistent with APA's standard cost allocation methodology. Under this approach, costs associated with the WORM are allocated to users based on their use of the WORM. We consider this is consistent with r. 95(3) of the NGR that costs directly attributable to supplying the users are allocated to those users. Nevertheless, the impact of the WORM on VTS tariffs is immaterial. Some injection and withdrawal tariffs increase slightly and others drop slightly.[20]

APA's proposal to build the WORM in the 2018–22 access arrangement period is based on AEMO's changed forecasts for gas production and consumption. Total forecast WORM expenditure is $126.7 million ($real 2017) which includes $26.7 million (proposed in the January access arrangement proposal) to pre-purchase the easement in the forecast period. The amended proposal results in an increase in smoothed revenue of between $3 million and $4 million ($real 2017) for each year of the access arrangement to be recovered through tariffs.[21]

APA's cost allocation methodology allocates some of the WORM costs to each withdrawal zone that uses the flow path incorporating the WORM. The proportion of WORM costs allocated to each withdrawal zone is based on the forecast volume withdrawn in the zone. This includes the cross-system tariff, as well as withdrawals at Port Campbell. Under this cost allocation methodology, users who do not use the WORM are charged withdrawal tariffs which exclude a contribution to WORM costs. These include withdrawals along injection pipelines that are matched to injections along the same pipeline. An example would be withdrawals in the Wodonga zone matched to Culcairn injections.

---

[20] APA, *VTS Supplementary access arrangement submission revised for Western Outer Ring Main (WORM)*, 15 May 2017

[21] APA, *Email to AER – Query re tariff model - confidentiality*, 1 June 2017

Table 10-3 Example of physical flow path of cost allocation

Gas flowing from Longford to Metro North west will pick up:
• Injection charge recovering cost of the Longford Gas Pipeline (only) (that is, if they inject on one of the 10 peak days for that injection pipeline for that winter)
• Metro North West withdrawal charge, which is a contribution to recover the costs for each asset zone that gas is estimated to have passed through. This may include contribution to multiple asset zones in proportion to the volume forecast for delivery to the Metro North West zone. One of these contributing zones would be the WORM asset zone (which is in the metro tariff zone)
Gas flowing from Longford to Bendigo (in the Calder tariff zone) will pick up:
• Injection charge recovering cost of the Longford Gas Pipeline (only) (that is, if users inject on one of the 10 peak days for that injection pipeline for that winter)
• Calder withdrawal charge, which is made up of a contribution to recover the costs for each asset zone that gas is deemed to have passed through. The asset zones relevant here will be the same ones as for the Metro North West delivery, plus others because the Calder zone is more distant from Longford. [22]

South West Pipeline (SWP)

We approve APA's proposed allocation of costs to the SWP. It is the same as that which it applied in previous access arrangements and we consider this meets the NGR requirements.

For its 2018–22 access arrangement, APA proposed SWP expansion works which includes:

- west bound expansion to increase capacity to Iona to expand peak injection capacity into Iona storage, and
- works to increase gas flows to Melbourne.

APA proposed to continue allocating historic capital costs to the SWP using a different approach to its standard cost allocation methodology. The application of a different cost allocation methodology for the SWP is consistent with previous access arrangements (2008–12 and 2013–17). APA proposed to recover the costs associated with expansion work on the SWP that will increase gas flow to Melbourne via this different approach.

APA proposed that westbound expansion costs not be recovered in the same way as SWP historic expenditure or outlays associated with increasing the flow of gas to Melbourne. It proposed that users of the Iona storage facility that are driving the need for westbound expansion of the SWP should bear the costs of expansion through an increase in the storage refill tariff at Iona. Storage refill tariffs are discussed below in more detail.

[22] APA, *Email to AER – Cost allocation through the tariff model*, 18 May 2017.

The SWP capital cost was originally approved and rolled-into the RAB on the basis of 50 per cent under the economic feasibility test[23] and 50 per cent under the system-wide benefits test.[24] Assets that were rolled-in to the RAB under the economic feasibility test were effectively treated as stand-alone costs for the purposes of cost allocation and tariff setting. This was done so that the actual incremental expenditure incurred because of each investment would be borne only by the users of the new assets.

However, in previous access arrangement decisions the ACCC also found there to be system-wide benefits including system security associated with the SWP and that these were sufficiently widespread to allow all users to receive an allocation of 50 per cent of the incremental cost.[25]

For the 2008–12 access arrangement the ACCC acknowledged that the SWP provided both direct benefits of connecting a new gas source (both the Lochard Underground storage facility and new production) to the VTS and system wide benefits of competition in the wholesale gas market and enhanced system security in the event of supply disruption. The ACCC approved a cost allocation for the SWP consisting of a 50 per cent allocation directly to the Port Campbell injection pipeline and 50 per cent allocated to the VTS as a whole on a postage stamp basis.[26]

For the 2013–17 access arrangement approved by the AER, APA proposed an allocation of 75 per cent direct to the SWP, but we disagreed with this allocation. In our 2013–17 draft decision, we concluded that injection tariffs applicable to the SWP should be set at the level of the Longford tariff provided the rolled out costs do not to exceed 50 per cent.[27] This was to allow the Port Campbell injection tariff to be competitive with the Longford injection tariff. Based on smoothing the allowed 2013–17 revenue requirement final allocation of costs allocated directly to the SWP became 58.5 per cent. This resulted in an initial 2013 injection tariff for Port Campbell of $1.8589/GJ, which compared to the Longford injection tariff of $1.8813.

In its January 2017 submission, APA initially proposed for its 2018–22 access arrangement that 78.5 per cent of the direct costs be allocated to the SWP and the remaining 21.5 per cent be allocated to all users on a postage stamp basis. [28]

However, APA's amended proposal of May 2017 changed this allocation of direct costs to 81.3 per cent allocated directly to the SWP and the remaining 18.7 per cent allocated to all users on a postage stamp basis. It proposed that this SWP cost allocation for the 2018–22 access arrangement is consistent with the considerations

---

23 Section 8.16(a)(ii)(A) of the Code

24 Section 8.16(a)(ii)(B) of the Code

25 ACCC, *Final decision, GasNet access arrangement 2003–07*, p.65

26 AER, *Draft Decision - GasNet Australia revised access arrangement 2008–12*, p.181

27 AER, *Draft Decision APA GasNet September 2012*, p 299

28 APA, *VTS Revision Proposal submission*, 3 January 2017, p225

applied by us in the 2013–17 access arrangement.[29] This allocation results in a proposed 2018 Port Campbell injection tariff of $2.1841/GJ compared to the Longford injection tariff of $2.1836/GJ.

We accept APA's proposed allocation of historic costs and expansion expenditures associated with expanding gas flows to Melbourne. We were guided by the following two principles when assessing APA's proposed allocation of direct costs to the SWP:

- direct costs are allocated as much as possible on the basis of user pays. We consider this is consistent with rule 95(3)(a) that costs directly attributable to supplying the user or class of users are to be allocated to the relevant user or class.
- pricing parity between Longford and Port Campbell injection tariffs (and therefore consistency with the 2013–17 access arrangement).

In our view, APA's proposed allocation of direct costs for the SWP reflects both:

- a user pays principle (direct costs allocated to the SWP have increased from 58.5 per cent in the current access arrangement to a proposed 81.3 per cent for the 2018–22 access arrangement), and
- parity between the Longford and Port Campbell injection tariffs. APA's proposed 2018 Port Campbell injection tariff of $2.1841/GJ is almost identical to the Longford injection tariff of $2.1836/GJ.

Achieving both an increased allocation of direct costs to users of the SWP and maintaining the Port Campbell injection tariff at comparable levels to the Longford injection tariff is possible due to increase peak flows on the SWP.

The increase in peak flows enables cost per GJ to be spread over a wider customer base hence allowing the Port Campbell $/GJ rate to remain comparable with the Longford injection tariff. Table 10-4 shows SWP utilisation.

Table 10-4 South west pipeline utilisation

SWP utilisation			
Toward Melbourne	2013-17 TJ/day		2018-22 TJ/day
	Assuming 2013 capacity	Assuming 2017 capacity	2018-22
Average	67.1	81.5	67.8
Peak	282.4	343.2	429.0

[29] APA, *VTS Revision Proposal submission*, 3 January 2017, p225

Away from Melbourne	2013-17 TJ/day		2018-22 TJ/day
	Assuming 2013 capacity	Assuming 2017 capacity	2018-22
Average	54.3	60.2	26.3
Peak	77.3	85.7	99.9

Source: APA access arrangement proposal tables 3-2 to 3-5 and response to information request 12.

Storage refill tariffs and a cross-system tariff

We approve APA's proposed incremental increase to the Iona storage refill tariff. We consider the proposed approach allocates costs of the westbound expansion to those users benefiting from the expansion. However, we consider APA's cross-system tariff should be charged in addition to the refill tariff, to users who ship gas from Longford or Culcairn into Iona storage and then on to the Sea Gas pipeline.

To explain why charging the cross-system tariff is appropriate, it is important to understand the way gas flows are changing between the storage facilities (such as at Iona), the refill tariffs that apply and pipelines connected to the VTS, such as the SEA gas pipeline.

APA proposed two storage refill tariffs for gas injected into storage. The APA charges for transporting gas to these storage facilities are set at a very low $ per GJ rate.

There are two storage facilities in the VTS:

- Dandenong LNG
- Lochard Underground storage facility at Iona(Iona storage).

APA proposed an increase to the Iona storage refill tariff. APA proposed, and we agree, that users of the Iona storage facility who are driving the need for westbound expansion of the SWP should bear the costs of that expansion. APA calculated the revenue allowance associated with the SWP expansion project and derived an incremental tariff of 2.5 cents/GJ. It calculated this by dividing the revenue requirement from the expansion by forecast annual volumes.[30] Adding this amount to the current Iona storage refill tariff increases the refill tariff to 7.9 cents/GJ. We approve APA's proposed incremental increase to the Iona refill tariff. We consider the proposed Iona refill tariff reflects APA's additional costs of the westbound expansion.

There are no incremental costs allocated to the Dandenong storage facility because no expansion is being undertaken. This means the Dandenong refill tariff (proposed 5.4 cents/GJ) will no longer be aligned with the Iona refill charge.

[30] APA, APA VTS–10–B.10 Iona refill tariff calculation - January 2017

Whilst we approve APA's incremental increase to the Iona refill tariff to signal the westbound expansion costs, we nevertheless consider that changes in the use of the Iona storage facility should be reflected in APA's tariff charging so that the costs directly attributable to supplying the user or class of users are allocated to that user or class.[31] We do not consider APA's current proposal achieves this.

The construction of the SEA Gas pipeline and a decline in production at Port Campbell has implications for APA's cost recovery. The Sea Gas pipeline facilitates the flow of gas to South Australia. This means that in recent times some gas is now being transported into South Australia and not being injected back into the VTS. This has resulted in a situation where gas which is transported across the VTS from Longford or Culcairn to Iona storage during off-peak times and then exported to South Australia is only attracting the refill tariff (and no charge for the use of the VTS).

Historically the Iona and Dandenong storage refill tariffs have been priced at a very similar rate. For both facilities, gas refill into storage has been undertaken during off-peak or non-congested periods. Gas has been withdrawn from storage during the peak periods and injected into the VTS. Because historically refilling of Iona storage has occurred at off-peak times, it has not imposed significant costs on the VTS system. The refill tariff was originally designed so that it did not recover the cost of transporting gas across the VTS into storage. This was to encourage refilling of storage in the off-peak to ensure sufficient gas in storage for Victoria's winter peak season. This gas would be injected back into the VTS. The costs of the VTS have instead been recovered when the gas is taken out of storage and injected back into the VTS through the injection and withdrawal charges. This approach resulted in a very low refill tariff of 5 cents/GJ and an injection tariff of around $1.50/GJ.

For its 2018–22 access arrangement APA proposed to continue this charging regime. We consider this could potentially create a distortion where shippers are utilising the low refill tariff to cross-ship and send gas to Adelaide via the SEA Gas pipeline. The concern is these shippers are charged only the refill tariff and no costs for transporting gas across the VTS. Shippers putting gas into storage and re-injecting it back into the VTS during the winter months however are recovering the full cost burden of the SWP through the injection tariff. We consider this has the following implications for cost recovery:

- some users of the VTS may not be contributing their share towards the cost of the VTS
- Victorian gas customers may end up subsidizing South Australian customers.

One way to address these concerns would be to charge the cross-system tariff and the refill tariff to those users who ship gas from Longford or Culcairn to Iona storage and then on to the Sea Gas pipeline.

---

[31] NGR, rule 95(3)(a)

Charging the cross-system tariff would also address concerns raised by the AER's Consumer Challenge Panel (CCP11). They noted that the key reason for proposing to build the WORM in the 2018–22 access arrangement is so the Iona storage facility can be filled each year before winter. CCP11 further commented that although expansion of the WORM is intended to address security of supply for Victorian gas users, the AER also needs to consider that the underlying causes of the need for expansion arise from the actions of other parties and not from the actions of Victorian gas users. These include:

- Contracting behaviour of shippers has changed the timing of when Iona is refilled, shortening the periods of time when Iona is filled, and thus increasing the capacity needs for refill by requiring the same amount of gas to be transported to Iona over a shorter period of time.
- Declining production at Port Campbell, requiring additional gas volumes sourced from the VTS (largely from Longford) putting increasing pressure on the SWP to deliver those volumes.
- Operation of gas powered power stations taking priority over refill at Iona.

CCP 11 commented:

> The WORM would address constraints on flows of gas from Victoria to South Australia on the SEA Gas pipeline, and this further highlights that users of gas transported on the SEA Gas pipeline are beneficiaries of the WORM and should pay a fair contribution to its costs.[32]

As discussed above APA's standard cost allocation methodology allocates some of the WORM costs to the cross-system tariff based on the flow path of gas. We consider that CCP 11's submissions about users of the WORM who transport gas on the SEA Gas pipeline is addressed through charging the cross-system tariff in addition to the refill tariff. This would ensure WORM costs are also recovered from active users of the VTS. This is consistent with rule 95(3)(a) of the NGR that cost are directly attributable to supplying the user or class of users are allocated to the user or class.

We are seeking stakeholder comment on our draft decision to include charging the cross-system tariff in APA's access arrangement in addition to the refill tariff to users who ship gas from Longford or Culcairn into Iona storage.

Victorian Northern Interconnector

APA proposes recouping the Victorian Northern Interconnector expansion costs (VNI) via an increase in the Culcairn withdrawal tariff (also called the NSW export tariff). The proposed Culcairn withdrawal tariff is $1.06, an increase of 33 per cent from 2017 levels.

---

[32] Consumer Challenge Panel (CCP11) - *Advice to the AER regarding APA VTS proposal to complete the WORM in the 2018-22 access arrangement period* - 6 June 2017.

We accept that NSW export customers will pay for VNI expenditure during the 2018–22 access arrangement. This interconnector will transport gas from Victoria to New South Wales and Queensland and will be used by shippers and retailers to supply gas for overseas markets. These customers take their gas supply via the Culcairn withdrawal tariff and Victorian customers do not use this gas. Instead shippers are sending this gas to New South Wales non-residential customers.

The expansion of the Victorian Interconnect (VNI) relates to demand for withdrawals from the VTS at Culcairn, not injections. While the VNI works have effectively increased Culcairn injection capacity by 5TJ/day, this was not the driver of this investment.

CCP 11 were of the view that Victorian customers should not pay for the VNI project in either the 2018–22 access arrangement, or any future access arrangement period.[33] They considered this project was not for the benefit of Victorian customers and therefore those customers should not pay for the expansion through an increase in any of their withdrawal tariffs.

We confirmed with APA that only NSW customers would pay for the VNI in the 2018–22 access arrangement. This is because VNI expansion costs are attributed to the Culcairn tariff. These customers will not have to pay a tariff for injection points that are in Victoria and as such, Victorian customers do not bear any VNI expansion costs.

We do note that APA stated VNI would result in larger throughput on the Victorian network delivering some benefits for Victorian customers in the form of a reduction in shared network costs. APA has reduced the overheads allocated to Victorian customers resulting from the VNI project, reallocating them to NSW customers. This means that some Victorian tariffs will reduce, albeit slightly, as a consequence of the VNI.

We assessed whether the capex associated with VNI should be conforming capex and rolled into APA's regulatory asset base (RAB). More discussion on this is in attachment 6. We also assessed APA's VTS tariff model to determine tariff impacts. We consider where demand or gas volumes on the VNI does not eventuate beyond the 2018–22 access arrangement, and gas is not flowing into Victoria then APA should bear the costs and risk associated with this. That is, other non-NSW customers would not pay for the VNI unrecovered costs (that is, not yet recouped through depreciation).

We understand from APA that it has contracts in place that underpin the VNI. We note CCP11's concern that beyond the period of the initial contracts, Victorian customers might have to pay for the unrecovered portion of the VNI.

Our view is that this draft decision can only set revenues and tariffs that pertain to the 2018–22 access arrangement period. During future access arrangements reviews we

---

[33] Consumer Challenge Panel (CCP 11), *Response to proposal from APA VTS for the 2018-22 access arrangement*, 3 March 2017, p. 37.

will again check APA's proposal for costs recovery and associated tariff implications. Forecasts of demand and throughput for the transmission pipeline will also affect our determinations of revenues and tariffs for future access arrangements.

10.5 Revisions

We require APA to make the following revisions to its access arrangement proposal consistent with the NGR and NGL:

Revision 10.1	Re-calculate reference tariffs so that the levels of the tariffs reflect the draft decision forecasts of demand, capex, opex and rate of return.
Revision 10.2	Apply the cross-system tariff in addition to the refill tariff to users who ship gas from Longford or Culcairn into Iona storage and later take it out of storage for export to South Australia. Calculate reference tariffs to reflect this change so that no costs are double counted.