Final Decision

APA Victorian Transmission System (VTS)

Access Arrangement 2023 to 2027

(1 January 2023 to 31 December 2027)

Attachment 6
Operating Expenditure

December 2022

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the access arrangement that will apply to APA's Victorian Transmission System (VTS) for the 2023–27 access arrangement period. It should be read with all other parts of the final decision.

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following documents:

Overview

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 – Operating expenditure incentive mechanism

Attachment 10 – Reference tariff variation mechanism

Attachment 12 – Demand

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6 Operating Expenditure

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses, incurred in the provision of pipeline services. Forecast opex is one of the building blocks we use to determine a service provider's total revenue requirement.

This attachment outlines our assessment of APA's proposed opex forecast for the Victorian Transmission System (VTS) for the 2023–27 access arrangement period.

6.1 Final decision

We do not accept APA's revised proposal for the VTS of forecast opex of $187.6 million ($2022) for the 2023–27 access arrangement period.[1] We are not satisfied that APA's forecast meets the opex criteria[2] and the requirements for forecast and estimates.[3]

Our final decision is to include our alternative estimate of total opex forecast of $182.9 million ($2022) for the VTS.[4] This is materially different to APA's revised proposal for the VTS for the 2023–27 access arrangement period ($4.7 million ($2022) (or 2.5%) lower) and we are satisfied that this reasonably reflects the opex criteria.

The key area of difference leading to our final decision of total opex being lower than APA's revised proposal for the VTS is that we have only included $14.1 million ($2022) of total step changes as compared to the $21.0 million ($2022) proposed by APA. This results in our alternative assessment being $6.9 million ($2022) (or 3.7%) lower than APA's revised total opex forecast for VTS. As set out below, it reflects our assessment that in some cases we are not satisfied that step changes would be incurred by a prudent service provider acting efficiently. Partially offsetting this reduction is a higher value for opex in the base year in our final decision ($3.1 million ($2022)) compared to APA's revised proposal as we have updated it for the forecast inflation for December 2022.[5]

Table 6.1 sets out APA's opex revised proposal for the VTS, our alternative estimate that is the basis for the final decision and the difference between our final decision and APA's revised proposal for the VTS. It also includes APA's initial proposal for the VTS and our draft decision.

1 APA VTS, *APA Victorian Transmission System 2023-27 Access arrangement - Revised regulatory proposal*. Including debt raising cost and SWP compressor costs. August 2022, p. 17.; APA VTS, *Business Case AA6 – SWP Expansion – Winchelsea 2nd Unit – Final,* 17 May 2022, p. 14.; APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022.* Received 23 August 2022.

2 National Gas Rules (NGR), r. 91.

3 NGR, r. 74.

4 This includes debt raising costs.

5 RBA, *Statement on Monetary Policy, Forecast Table - November 2022*, 4 November 2022.

Table 6.1 Comparison of APA's VTS revised proposal and our final decision on opex ($million, 2022)

	APA VTS initial proposal	AER draft decision	APA VTS revised proposal	AER final decision - alternative estimate	Difference
Base (reported opex in 2020)	147.1	156.9	156.9	160.0	3.1
Base year adjustments	-	-	-	-2.0	-2.0
Base year – non-recurrent efficiency gain	-	-	-	0.8	0.8
Remove category specific forecasts	-0.4	-0.4	-0.4	-0.4	-
Final year increment	-	6.9	6.9	7.0	0.1
Trend: Output growth	-	-	-	-	-
Trend: Real price growth	-	1.2	1.2	2.4	1.2
Trend: Productivity growth	-	-1.3	-1.3	-2.4	-1.1
Total step changes	27.6	6.0	21.0	14.1	-6.9
Total category specific forecasts	3.0	-	-	-	-
Total opex (excluding debt raising costs)	**177.3**	**169.3**	**184.3**	**179.6**	**-4.7**
Debt raising costs	3.0	3.2	3.3	3.4	-
Total opex (including debt raising costs)	**180.3**	**172.5**	**187.6**	**182.9**	**-4.7**
Percentage difference to APA proposal					-2.5%

Source: APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement – Revised - Post tax revenue model*, August 2022; APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022.* Received 23 August 2022; APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement proposal, Opex Model*, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 15. AER analysis.

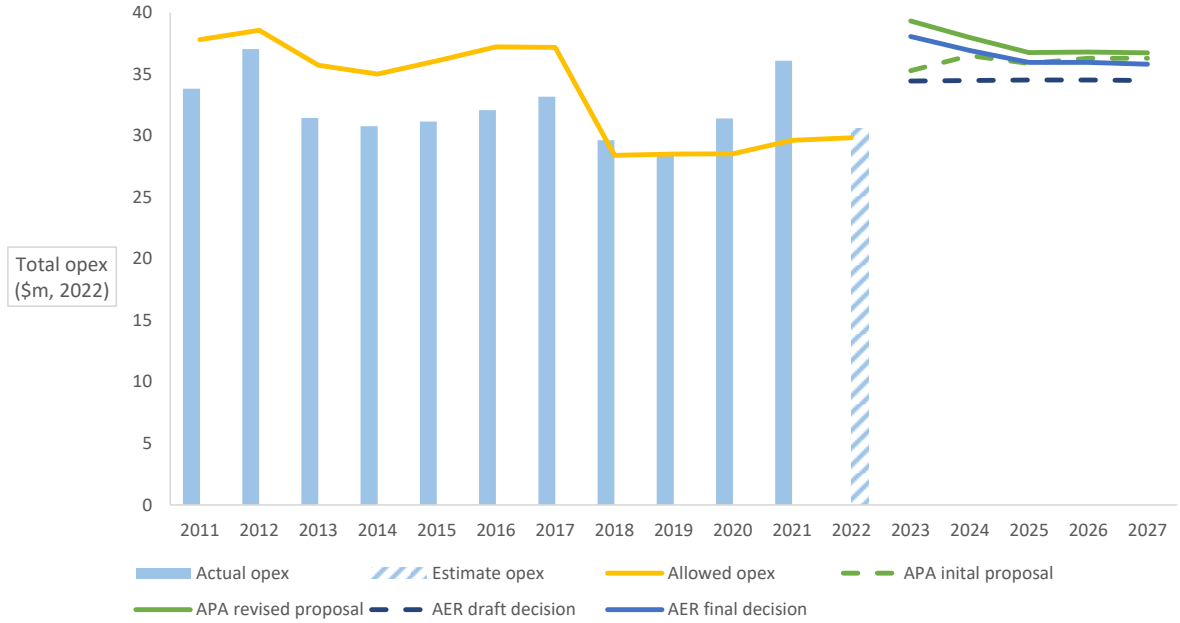
Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero.

Figure 6.1 compares the total opex forecast for the VTS we have included in the final decision for the 2023–27 access arrangement period (the blue line) to APA's revised total opex proposal for the VTS (the green line), as well as APA's actual and estimated opex in the past and current access arrangement periods (the blue bars). We have also included the forecasts we approved in past decisions (the orange line), APA's initial opex proposal for the VTS for the 2023–27 access arrangement period (the green dashed line) and our alternative estimate for the draft decision (the blue dashed line). Our final decision total opex forecast is $28.5 million ($2022) or 18.4% above the amount we determined in our 2018–22 decision for VTS[6] and $26.8 million ($2022) or 17.2% higher than its actual / estimated spend over the 2018–22 access arrangement period.[7]

6 AER, *APA VTS - Final decision post tax revenue model*, November 2017 and AER analysis.

7 APA VTS, *APA Victorian Transmission System 2023-27 Access arrangement, Opex Model*, 1 December 2021 and AER analysis.

Figure 6.1 Historical and forecast opex ($million, 2022)



Source: APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement – Revised - Post tax revenue model*, August 2022; APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022.* Received 23 August 2022.; APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement proposal, Opex Model*, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 15. AER analysis.

6.2 APA's revised proposal

APA's revised proposal for the VTS applied a base-step-trend approach to forecast total opex for the 2023–27 access arrangement period, which is consistent with its initial proposal and our preferred approach.[8]

APA's revised total opex forecast for the VTS of $187.6 million[9] ($2022) for the 2023–27 access arrangement period (see Table 6.2) is $33.2 million ($2022) or 17.7% higher than the amount we determined in our 2018–22 decision for VTS[10] and $31.5 million ($2022) or 16.8% higher than its actual / estimated spend over the 2018–22 access arrangement period.[11] Further, APA's revised proposal is $7.3 million ($2022) or 4.1% higher than its initial proposal and $15.1 million ($2022) or 8.8% higher than our draft decision.[12]

8 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement – Overview of Revised Proposal*, August 2022, p. 90.

9 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue model*, August 2022 and APA VTS, *APA Victorian Transmission System - 2023-27 access arrangement: Response to information request #022*. Received 23 August 2022. Noting that the PTRM model did not include the SWP opex costs, which we have added to APA's revised proposal opex costs.

10 AER, *APA Victorian Transmission System 2023-27 - Final decision post tax revenue model*, November 2017 and AER analysis.

11 APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement proposal, Opex Model*, 1 December 2021 and AER analysis.

12 AER Draft Decision, *APA VTS 2023–27 Access Arrangement Proposal, Opex model,* June 2022; AER analysis.

Table 6.2 APA's revised opex for the VTS for the 2023–27 period ($million, 2022)

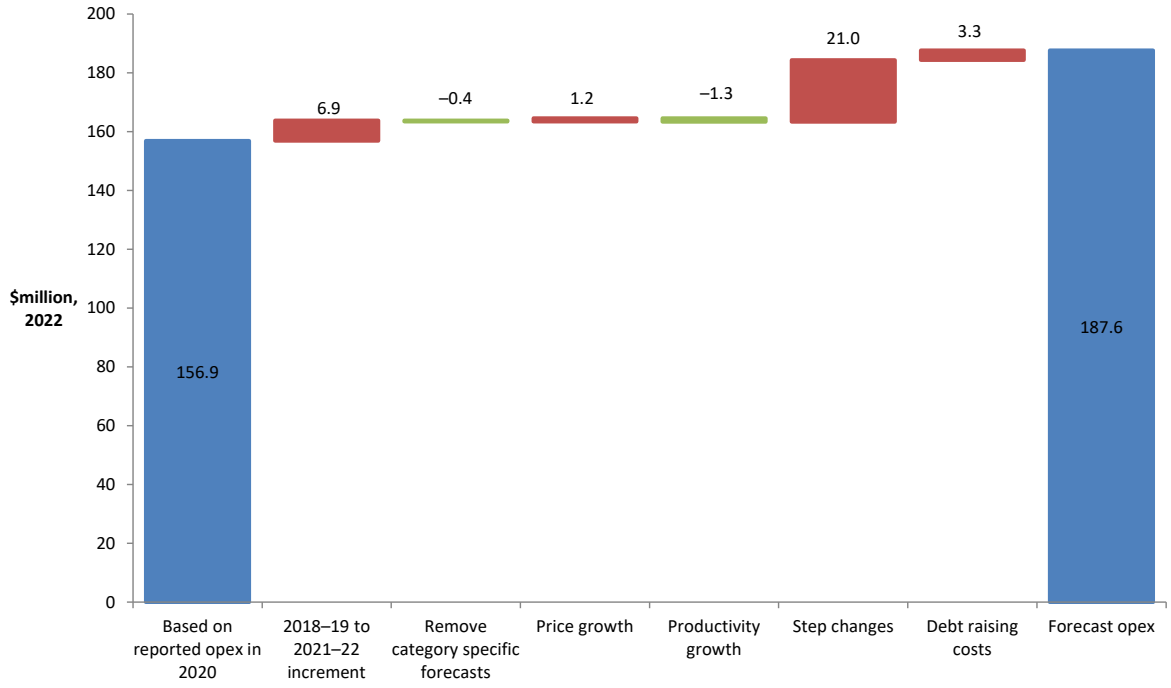
	2023	2024	2025	2026	2027	Total
Total opex, excluding debt raising costs	38.7	37.3	36.1	36.1	36.1	184.3
Debt raising costs	0.6	0.7	0.7	0.7	0.6	3.3
Total opex, including debt raising costs	**39.3**	**38.0**	**36.8**	**36.8**	**36.7**	**187.6**

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model*, August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; AER analysis.
Note: Numbers may not add up to total due to rounding.

In Figure 6.2 we separate APA's revised forecast opex proposal for the VTS into its different components. This included:

- Using reported opex in 2020 as the base for forecasting its opex over the 2023–27 period, consistent with its initial proposal and accepting our draft decision adjustment for updated inflation. This led to a base opex of $156.9 million ($2022) over the five years of the access arrangement period.
- Accepting our draft decision alternative estimate for the final year increment increase of $6.9 million ($2022).
- Adjusting opex in the base year by removing debt raising costs, reducing its opex forecast by $0.4 million ($2022).
- Accepting our draft decision alternative estimate for price and productivity growth equal to an increase of $1.2 million ($2022) and fall of $1.3 million ($2022) respectively.
- Adding total step change expenditure equal to $21.0 million ($2022) including:
  - Accepting our draft decision estimate of $6.0 million ($2022) for the step changes related to meeting Security of Critical Infrastructure (SoCI) legislative requirements and opex related to capital expenditure (capex projects).
  - Re-proposing an additional $15.0 million ($2022) in step changes related to further amended SoCI legislative requirements, opex related to a further capex project, information technology replacement and migration to cloud-based services, acquisition of carbon offset certificates and an increase in property taxes.
- Debt raising costs of $3.3 million ($2022).

Figure 6.2 APA's revised proposal for the VTS forecast opex ($million, 2022)



Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model,* August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; AER analysis.

6.2.1 Stakeholder views

We received several submissions from stakeholders that raised issues relevant to APA's forecast of total opex for VTS for the 2023–27 access arrangement period.

The Brotherhood of St Laurence noted that the AER allowed the use of the 2020 base year despite lower expenditure in other years of the current access arrangement 2018–22, and considered consumer concerns in relation to the higher opex in the base year had not been resolved.[13] It also considered that a higher annual average productivity growth than the 0.5% applied in AER's draft decision should be used, as this is less than the commercial average of 1%.

The Brotherhood of St Laurence did not support an increase in opex between the draft and final decision due to an increase in step changes.[14] It and its consultants, TRAC partners, agreed with AER's draft decisions on APA's proposed step changes and noted the following in terms of the step changes for final decision:

- For information technology there is a need for the AER to assess the prudency and efficiency of the proposed costs, noting that at this point in time increased business performance is not a consumer priority.

13 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, pp. 18-20.

14 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, pp. 18-20.

- For the opex related to the augmentation of the South West Pipeline (SWP), it disagreed with APA's prediction that the compressor units will be run more often over the upcoming period and noted that while the two SWP compressors will be run in series and deliver additional capacity, this in its view does not equate to additional opex. Justification for the augmentation was based on increased supply from Iona storage, however if demand is due to interstate/international export, it considered Victorian customers should not be charged. It also noted customer requests to explore alternative demand management options were not addressed.
- For the SoCI step change it noted that due to the confidentiality of information it would rely on AER's assessment of the prudency and efficiency of the costs.
- For the property tax costs, it considered that this requires legislative evidence to determine prudency.
- For the acquisition of carbon offsets costs, it considered these should not be passed on to consumers as there is no legislative requirement and to do so would remove the incentives for business to reduce emissions. Further, it disagreed with APA's methods of calculating emissions using carbon offsets.

The AER's Consumer Challenge Sub-Panel 28 (CCP28) and Energy Users Association Australia (EUAA) raised similar concerns in relation to the acquisition of carbon offsets step change, noting that there is no formal requirement and no additional evidence of consumer engagement to support inclusion of these costs in APA's revised proposal.[15] The EUAA opposed inclusion of this step change in the final decision.

AGL Energy and Lochard Energy supported the Western Outer Ring Main (WORM) and SWP and associated expenditure.[16]

6.3 Assessment approach

Our role is to decide whether or not to accept a business's forecast opex. We approve the business's forecast opex if we are satisfied that it meets the opex criteria. The opex criteria require that:

> Operating expenditure must be as such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.[17]

In deciding whether forecast opex meets the opex criteria, we also apply the forecasting and estimate requirements under the National Gas Rules (NGR), which include that:

> A forecast or estimate must be arrived at on a reasonable basis and must represent the best forecast or estimate possible in the circumstances.[18]

15 CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27 CCP28 Advice to the AER – Revised Proposal*, *31 August 2022,* p. 15.: Energy Users Association of Australia. *Submission APA Victorian Gas transmission system access arrangements.* 7th September 2022. pp. 1-2.

16 Lochard Energy, *Submission APA VTS AA 2023-27,* 19 August 2022. p. 1.: AGL Energy Limited, *Submission – Draft decision: APA Victorian Transmission System Access Arrangement 2023-27.* 6 September 2022. pp 1-2

17 NGR, r. 91(1). Rule 91(2) also provides that the forecast of required operating expenditure of a pipeline service that is included in the full access arrangement must be for expenditure that is allocated between reference services in accordance with Rule 93.

18 NGR, r. 74(2).

We use a form of incentive-based regulation to assess the business's forecast opex over the access arrangement period at a total level. To do so, we develop an alternative estimate of total opex using a 'top-down' forecasting method, known as the 'base–step–trend' approach.[19]

Once we have developed our alternative estimate of total opex, we compare it with the business's total opex forecast to form a view on the reasonableness of the business's proposal. If we are satisfied the business's total forecast meets the NGR requirements, we accept the forecast. If we are not satisfied, we substitute the business's forecast with our alternative estimate.

In making this decision, we take into account the reasons for the difference between our alternative estimate and the business's forecast, and the materiality of that difference. We also take into consideration the interrelationships between the opex forecast and other constituent components of our decision, such that our decision is likely to contribute to the achievement of the National Gas Objective (NGO).[20]

6.3.1 Incentive regulation and the 'top-down' approach

Incentive regulation is designed to prevent network businesses from exploiting their natural monopoly position by setting prices in excess of efficient costs.[21] A key feature of the regulatory framework is that it is based on incentivising networks to be as efficient as possible. We apply incentive-based regulation across the energy networks we regulate, including gas networks. More specifically for opex, we rely on the efficiency incentives created by both ex-ante revenue regulation (where an opex allowance is granted over a multi-year regulatory period) and the operating expenditure incentive mechanism (OEIM).[22]

The incentive-based regulatory framework partially overcomes the information asymmetries between the regulated businesses and us.[23] It is intended to align the commercial goals of the network businesses to the objectives of the regulatory regime—especially the long term interests of consumers (the NGO).[24]

Incentive regulation aligns these goals by encouraging regulated businesses to reduce costs below our forecast, in order for them to make higher profits, and 'reveal' their costs in doing so. The information revealed by the businesses allows us to develop better expenditure forecasts over time. Revealed opex reflects any efficiency gains made by a business over time. As a network business becomes more efficient, this translates to lower forecasts of opex in future access arrangements, which means consumers also receive the benefits of

19 A 'top-down' approach forecasts total opex at an aggregate level, rather than forecasting all individual projects or categories to build a total opex forecast from the 'bottom up'.

20 NGL, s. 28(1)(a); NGL, s. 23.

21 Productivity Commission, *Electricity Network Regulatory Frameworks, volume 1, No. 62*, 9 April 2013, p. 188.

22 The approach we apply to assessing a business's opex (and which we have applied in this decision) is more fully described in the Expenditure Assessment Guideline and its accompanying explanatory materials, which are published on the AER's website.

23 Productivity Commission, *Electricity Network Regulatory Frameworks, volume 1, No. 62*, 9 April 2013, p. 189.

24 The NGO is set out under the NGL, s. 23 which is: "...to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

the efficiency gains made by the business. Incentive regulation therefore aligns the business's commercial interests with consumer interests.

The Productivity Commission explains:

> Under incentive regulation, the regulator forecasts efficient aggregate costs over the upcoming regulatory period (of usually five years), which it uses to set a revenue allowance for that period. The business makes higher profits if it reduces costs below those forecast by the regulator. In doing so, the business reveals the efficient costs of delivering the service, which would then influence the regulator's determination in the next period. Accordingly, incentive regulation encourages efficiency while reducing the risks that networks use their monopoly positions to set unreasonably high prices.[25]

Incentive regulation is designed to leave the day-to-day decisions to the network businesses.[26] It allows the network businesses the flexibility to manage their assets and labour as they see fit to comply with the opex criteria[27] and achieve the NGO.[28]

Our general approach is to assess whether opex, in aggregate, is sufficient to satisfy the opex criteria over the access arrangement period, rather than to assess all individual opex projects or programs. As noted above, to do so, we develop an alternative estimate of total opex using the 'base–step–trend' forecasting approach (section 6.3.2). This is generally a 'top-down' approach, but there may be circumstances where we need to use 'bottom-up' analysis, particularly in relation to our base opex assessment and for step changes.

6.3.2 Building an alternative estimate of total forecast opex

As a comparison tool to assess a business's opex forecast, we develop an alternative estimate of the business's total opex requirements in the forecast period, using the base–step–trend forecasting approach. We apply the forecasting and estimate requirements under the NGR.[29]

If a business adopts a different forecasting approach to derive its opex forecast, we develop an alternative estimate and assess any differences with the business's forecast opex.

Figure 6.3 summarises the base–step–trend forecasting approach.

25 Productivity Commission, *Electricity Network Regulatory Frameworks, volume 1, No. 62*, 9 April 2013, p. 27.

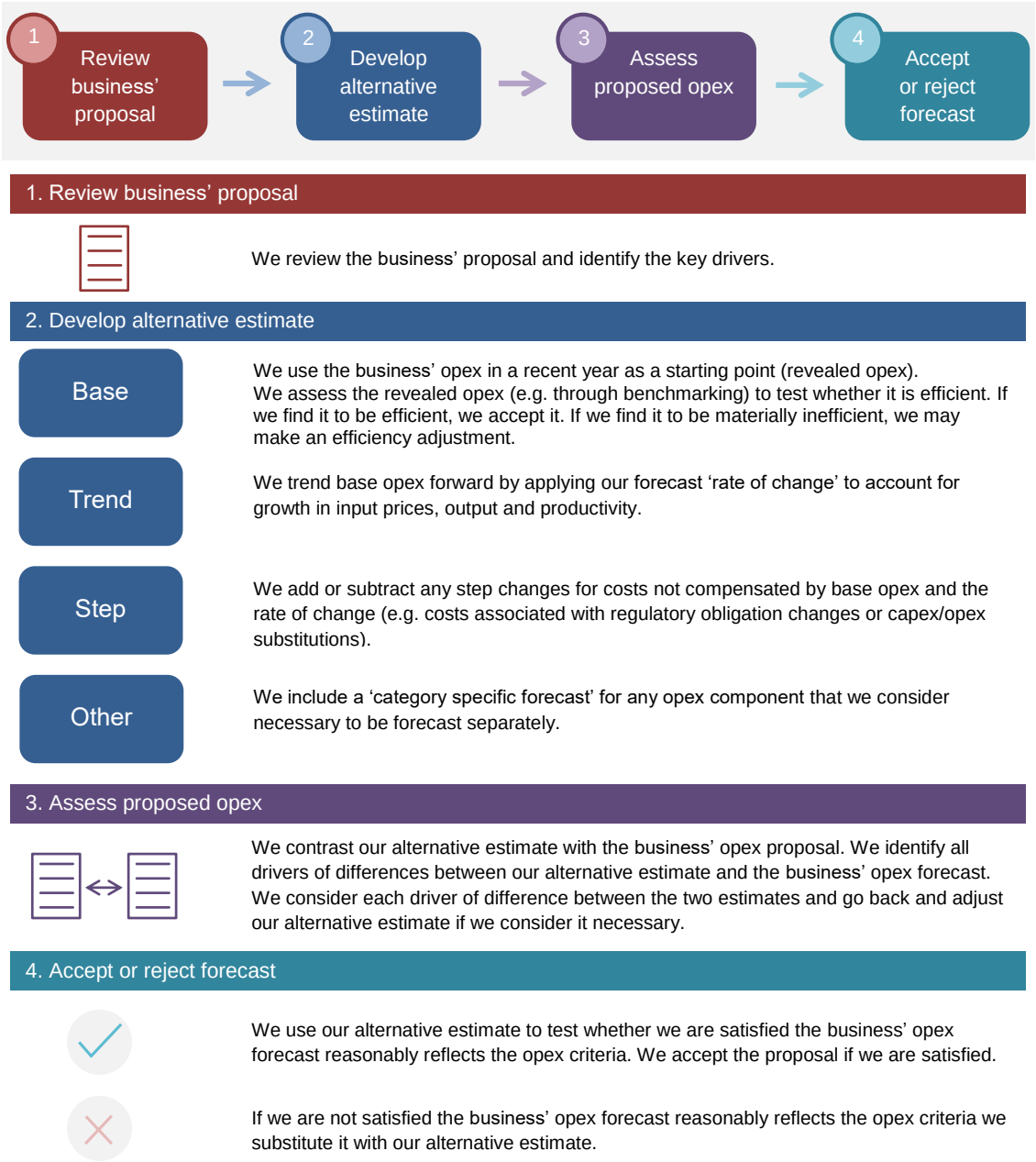
26 Productivity Commission, *Electricity Network Regulatory Frameworks, volume 1, No. 62*, 9 April 2013, pp. 27–28.

27 NGR, r. 91.

28 NGL, s. 28(1)(a) and s. 23.

29 NGR, r. 74.

Figure 6.3 Our opex assessment approach



6.3.3 Interrelationships

In assessing APA's total forecast opex for VTS, we also take into account other components of the VTS access arrangement proposal that could interrelate with our opex decision. The matters we considered in this regard included:

- The capex proposals related to the step changes for the WORM capex project, the SWP capex project, the information technology capex and the SoCI capex under the new regulatory obligations.
- The operation of the OEIM in the 2018–22 period, which provided APA with an incentive to reduce opex in the base year.

- The impact of cost drivers that affect both forecast opex and forecast capex, including forecast labour price growth.
- Our assessment of the rate of return, to ensure there is consistency between our determination of debt raising costs and the rate of return building block.

6.4 Reasons for final decision

Our final decision is to not accept APA's revised proposal for the VTS total opex forecast of $187.6 million ($2022), including debt raising costs, for the 2023–27 access arrangement period.[30]

We consider that based on the information available to us, our final decision for total forecast opex of $182.9 million ($2022), including debt raising costs, for the VTS for the 2023–27 access arrangement period reasonably meets the opex criteria. This is materially different, $4.7 million ($2022) (or 2.5%) lower, than APA's opex forecast of $187.6 million ($2022), including debt raising costs. The key driver of this difference is a lower total step change amount of $14.1 million ($2022), which is $6.9 million ($2022) (or 3.7% of total opex) lower than the total step change amount ($21.0 million ($2022)) included in APA's revised proposal. As set out below, this reflects our assessment that in some cases we are not satisfied that step changes would be incurred by a prudent service provider acting efficiently. This has been partially offset by an increase in our forecasts of opex in the base year, $3.1 million ($2022) compared to APA's revised proposal, as we have updated it for the forecast inflation for December 2022.[31]

Table 6.3 sets out APA's revised proposal for the VTS, our alternative estimate that is the basis for the final decision, and key differences. It also includes details in relation to the initial proposal and draft decision.

30 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue model,* August 2022 and APA VTS, *APA Victorian Transmission System - 2023-27 access arrangement: Response to information request #022*. Received 23 August 2022. Noting that the PTRM model did not include the SWP opex costs, which we have added to APA's revised total costs.

31 RBA, *Statement on Monetary Policy, Forecast Table - November 2022*, 4 November 2022.

Table 6.3 Comparison of APA's VTS revised proposal and our final decision on opex ($million, 2022)

	APA VTS initial proposal	AER draft decision	APA VTS revised proposal	AER final decision - alternative estimate	Difference
Based on report opex in 2020	147.9	156.9	156.9	160.0	3.1
2020 to 2022 increment	–	6.9	6.9	7.0	0.1
Base year adjustments	–	–	–	-2.0	-2.0
Base year non-recurrent efficiency gains	–	–	–	0.8	0.8
Remove category specific forecasts	-0.4	-0.4	-0.4	-0.4	–
Output growth	–	–	–	–	–
Price growth	–	1.2	1.2	2.4	1.2
Productivity growth	–	-1.3	-1.3	-2.4	-1.1
Total Trend	–	-0.1	-0.1	0.0	0.1
Informational and Operational technology	9.4	–	8.1	7.1	-1.0
Security of critical infrastructure	6.6	4.1	5.6	4.1	-1.5
Augmentation and Expansion related opex	7.0	1.9	3.1	2.9	-0.2
Increase in VTS property taxes	3.1	–	2.7	–	-2.7
Carbon offsets	1.5	–	1.5	–	-1.5
Total step changes	27.6	6.0	21.0	14.1	-6.9
Allowances	1.0	–	–	–	–
Access Arrangement costs	2.0	–	–	–	–
Total Category specific forecasts	3.0	–	–	–	–
Total opex, excluding debt raising costs	177.3	169.3	184.3	179.6	-4.7
Debt raising costs	3.0	3.2	3.3	3.4	–
Total opex, including debt raising costs	180.3	172.5	187.6	182.9	-4.7
Percentage difference – AER final decision to revised proposal					-2.5%

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model*, August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; APA VTS, Access arrangement proposal 2023–27, Opex Model, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure*, June 2022, p. 15.AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero.

6.4.1 Base opex

This section provides our view on the prudent and efficient level of base opex that we consider APA would need for the safe and reliable provision of prescribed transmission gas services over the 2023–27 access arrangement period.

6.4.1.1 Base year

Consistent with our draft decision, and APA's revised proposal for the VTS, we have used APA's opex in 2020 as the base year, which is year three of the 2018–22 access arrangement period, to forecast the VTS opex over the 2023–27 period.

In its revised proposal for the VTS, APA accepted our draft decision for the base year, which is equal to $31.4 million ($2022), and included adjustments for the consumer price index forecast for December 2022 released in May 2022. As stated in our draft decision this resulted in an increase to our alternative estimate for opex in the base year over the 2023–27 period of $3.1 million ($2022).[32] This reflected that we applied the consumer price index (CPI) to forecast end-of-year 2022 dollars rather than mid-2022 dollars.

As noted in our draft decision, we do not have standardised data for the gas network service providers in order to do our own economic benchmarking or category analysis review to assess the efficiency of the revealed base year. Our use of the 2020 base year in our alternative estimate has relied in part on our analysis of APA's historical trends. This included a comparison of opex in the base year of 2020 and actual opex for the two previous years of the current period (2018 and 2019) which demonstrated that whilst actual opex in 2020 of $31.4 million ($2022)[33] is around $1.8 and $3.0 million ($2022) higher than in 2018 and 2019 respectively, it was lower than actual opex for 2021 ($36.1 million ($2022)) by $4.7 million ($2022) (or 15.0%).[34] It was also lower than the average opex of the 2013—17 access arrangement period of $32.5 million ($2022).

APA's opex was also subject to the incentives of an ex-ante regulatory framework, including the application of an OEIM in the 2018–22 period. Typically, where a service provider is subject to these incentives, we are satisfied there is a continuous incentive for a service provider to make efficiency gains and it does not have an incentive to increase its opex above efficient levels in the proposed base year. We have also taken this into account in using in our alternative estimate actual opex in 2020 as base year opex.[35]

Based on this, and in the absence of any evidence to the contrary, we have not identified any evidence that APA's proposed 2020 base year is materially inefficient. In submissions on APA's revised proposal, and the AER draft decision, the Brotherhood of St Laurence noted that the AER had included the 2020 base year in our alternative assessment but that this does not address consumers' concerns of a higher opex expenditure in the 2020 base year compared to expenditure of other years.[36] We note these views, but consider that while 2020 is not the lowest year of actual opex, it is also not the highest year of actual opex, and that in combination with the OEIM being in place, opex in 2020 is a reasonable basis to use in our alternative estimate.

32 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 16.

33 APA VTS, *APA GasNet - 2020 – Annual - RIN response - Consolidated*, 30 April 2021; AER analysis.

34 APA VTS, *APA GasNet - 2013-19 – Annual reporting - Historical - RIN response - Consolidated*, 30 April 2021 and APA VTS*, APA GasNet - 2021 – Annual - RIN response - Consolidated*, 2 May 2022 and AER analysis.

35 NGR, r 71(1).

36 Brotherhood of St. Laurence, *2023–2027 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, p. 19.

6.4.1.2 Base year adjustments

Adjustments are required to base year opex to ensure that it reflects the efficient and recurrent level of opex over the forecast period.

Table 6.4 sets out these adjustments both in terms of APA's revised proposal (which reflected our draft decision) and our alternative estimate that forms the basis for our final decision. The alternative estimate includes updated forecasts for CPI to get into a $2022 basis.[37] Consistent with our draft decision in our alternative estimate we adjusted the 2020 base year for the final year increment and to remove the category specific forecasts (debt raising costs).[38] For our final decision we also have removed the forecast water bath expenditure, which will be transferred to capex from the start of the new access arrangement period. Because we have removed more opex in the base year ($0.4 million) than what was incurred ($0.2 million ($2022), we have also included a non-recurrent efficiency gain of $0.2 million ($2022). This ensures forecast opex includes zero water bath expenditure.

Table 6.4 Base year adjustments ($million, 2022)

	APA VTS revised proposal	AER Final decision - alternative estimate	Difference to APA VTS revised proposal
Reported 2020 opex	31.4	32.0	0.6
Final year increment	1.4	1.4	–
Estimated final year opex	32.7	33.6	0.9
Remove category specific forecast	-0.1	-0.1	–
Remove water bath costs (capex)	–	-0.4	-0.4
Non-recurrent efficiency gain for water bath costs	–	0.2	0.2
	32.7	**33.1**	**0.4**

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, Revised - Post tax revenue model, August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure*, June 2022, p. 17. AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero. The category specific forecast removed is debt raising costs.

For the forecast period, water bath costs will be treated as capex, not opex as they were for the current access arrangement period (2018–22).[39] In our draft decision it was determined that although water bath costs were prudent and efficient, they should remain as opex rather than capex as proposed by APA.[40] In our final decision we are satisfied with the information provided by APA that these expenses can be classified as capex.[41] Accordingly, we consider

37 RBA, *Statement on Monetary Policy, Forecast Table – November 2022*, 4 November 2022.

38 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 17.

39 APA VTS, *VTS - BC328 AA23-27 Waterbath Heater Integrity* - December 2021 – Public.pdf. p.1.

40 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 5 Capital expenditure,* June 2022, p 37.

41 AER, *Final decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 5 Capital expenditure,* December 2022.

that the $0.4 million ($2022) annual capex which has been added to forecast capex should be removed from base year opex (equal to $2.0 million ($2022) over the 2023–27 access arrangement period.[42]

However, actual water bath opex in the 2020 base year is equal to $0.2 million ($2022) (being the costs incurred for the Wollert water bath).[43] To account for the difference between the actual opex costs in the base year ($0.2 million ($2022)) and the forecast annual capex amount ($0.4 million ($2022)) removed from opex, we have also assumed a $0.2 million ($2022) non-recurrent base year efficiency gain to both forecast our alternative estimate of opex and to calculate OEIM carryovers.[44] This ensures we are forecasting zero water bath costs in our alternative estimate of opex (as the net effect of these two adjustments (a reduction $0.4 million ($2022) plus $0.2 million ($2022) gain) is equal to actual expenditure $0.2 million ($2022). It also ensures that APA is not rewarded for efficiency gains that are, through the OEIM, not passed on to customers through a lower opex forecast and reduces OEIM carryovers by $0.8 million ($2022) over the 2023–27 access arrangement period. Inclusion of the non-recurrent efficiency gain in our alternative estimate of opex and in the OEIM carryovers, ensures that total forecast expenditure, including carryover amounts, does not change due to a change in accounting treatment.

6.4.2 Rate of change

Once we estimate opex in the final year of the current period, we apply a forecast annual rate of change for the 2023–27 period. This accounts for forecast growth in prices, output and productivity.

In its revised proposal for VTS, APA accepted our draft decision on price, output and productivity growth.

In our final decision, we have included an updated price growth forecast for the wage price index (WPI) from our consultants KPMG and from BIS Oxford Economics as submitted by Victorian gas distributors.[45] As detailed in Table 6.5, this, being the only update we have made, has resulted in an increase in opex of 0.1% over the 2023–27 access arrangement period compared to APA's revised proposal for the VTS.

42 These adjustments were based on forecast water expenditure of $0.2 million per annum per water bath, with an expected maintenance of two water baths per year. Refer to APA VTS, *VTS - BC328 AA23-27 Waterbath Heater Integrity Option 3* - December 2021 – Public.pdf. p.4.

43 APA VTS, *APA Victorian Transmission System 2023-27 Access arrangement, Response to information request #020 - Question 8*. Received 26 August 2022.

44 AER, *Final decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 8 OEIM,* December 2022, p. 8.

45 KPMG international limited, *Wage Price Index forecasts,* 14 September 2022, p. 41. BIS Oxford Economics, *Input price escalation forecasts to 2027/28* – prepared by BIS Oxford Economics for the Victorian gas distributors, p. 4. Note that the BIS Oxford Economics estimates were prepared on a financial year basis and so were averaged to get a calendar year estimate.

Table 6.5 Forecast rate of change (%)

	2023	2024	2025	2026	2027
APA VTS revised proposal					
Input price growth	0.3	0.5	0.6	0.6	0.4
Output growth	–	–	–	–	–
Productivity growth	0.5	0.5	0.5	0.5	0.5
Overall rate of change	-0.2	0.0	0.1	0.1	-0.1
AER final decision - alternative assessment					
Input price growth	0.0	0.8	0.9	0.7	0.4
Output growth	–	–	–	–	–
Productivity growth	0.5	0.5	0.5	0.5	0.5
Overall rate of change	–0.5	0.3	0.4	0.2	-0.1
Difference to APA VTS revised proposal	-0.3	0.3	0.3	0.1	0.0

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, Revised - *Post tax revenue model, August* 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; KPMG international limited, *Wage Price Index forecasts*, 14 September 2022, p. 41.; BIS Oxford Economics, *Input price escalation forecasts to 2027/28* – prepared by BIS oxford economics for Victorian gas distributors, p. 4; APA VTS, Access arrangement proposal 2023–27, Opex Model, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure*, June 2022, p. 18;AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero

6.4.2.1 Forecast price growth

In its revised proposal for the VTS, APA accepted our draft decision of applying a real average price growth of 0.5%. In our final decision we have applied updates to forecasts for wage price index (WPI), this has increased our final decision for the total opex forecast by $2.4 million ($2022) (or 0.7%).

As set out in Table 6.6, our real price growth forecast is a weighted average of forecast labour price growth and non-labour price growth:

- To forecast labour price growth, we have used the forecast of growth in WPI for the Victorian electricity, gas, water and waste services (utilities) industry. As advised in the draft decision, we have used updated forecasts from our consultant KPMG and using the BIS Oxford forecasts submitted by the Victorian gas distributors.[46] We have also added the impact of the legislated increases in the superannuation guarantee, which is not captured in the WPI forecasts.

[46] KPMG international limited, *Wage Price Index forecasts,* 14 September 2022, p. 41.; BIS Oxford Economics, *Input price escalation forecasts to 2027/28* – prepared by BIS oxford economics for Victorian gas distributors, p. 4. Note that the BIS Oxford estimates were prepared on a financial year basis and so were averaged to get a calendar year estimate.

- Both we and APA did not forecast any non-labour real price growth.[47]
- We applied input price weights of 62% and 38% for labour and non-labour respectively in our alternative estimate which forms the basis for the final decision reflecting our previous approach for transmission networks,[48] which is similar to the estimate including for the recent Roma to Brisbane pipeline.[49]

Table 6.6 Forecast labour price growth (%)

	2023	2024	2025	2026	2027
APA VTS revised proposal					
Forecast WPI growth, Deloitte	-0.4	0.1	0.1	0.3	0.4
Forecast WPI growth, BIS Oxford Economics	0.5	0.7	1.0	1.0	1.0
Superannuation guarantee increases	0.5	0.5	0.5	0.3	0.0
Forecast labour price growth	0.5	0.9	1.0	0.9	0.7
AER final decision - alternative estimate					
Forecast WPI growth, KPMG	-1.2	0.9	0.9	0.7	0.3
Forecast WPI growth, BIS Oxford Economics	0.2	0.7	1.0	1.0	0.8
Superannuation guarantee increases	0.5	0.5	0.5	0.3	0.0
Forecast labour price growth	0.0	1.3	1.4	1.1	0.6
D**ifference to APA VTS revised proposal**	-0.5	0.4	0.4	0.2	-0.1

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, Revised - Post tax revenue model, August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; KPMG international limited, *Wage Price Index forecasts*, 14 September 2022, p. 41.; BIS Oxford Economics, *Input price escalation forecasts to 2027/28* – prepared by BIS oxford economics for Victorian gas distributors, p. 4.; APA VTS, Access arrangement proposal 2023–27, Opex Model, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure, June 2022, p. 20*; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero.

6.4.2.2 Forecast output growth

Consistent with our draft decision[50] and APA's proposal for the VTS, we have not included output growth in our alternative opex estimate.

As in our draft decision, this is consistent with APA's capex proposal which does not include any expansion capex in the 2023–27 period driven by growing demand. APA proposed some capex projects that expand the size of the network, but these are driven by security of supply needs and not additional demand.[51] In this regard, while our alternative estimate does

47 APA VTS, *Access arrangement proposal 2023–27, Opex Model*, 1 December 2021.

48 Economic Insights, *Inputs to be used in the Economic Benchmarking of Electricity Network Service Providers,* 27 February 2013, p 10.

49 AER, *Draft Decision, Roma to Brisbane Pipeline Access Arrangement 2022 to 2027 Attachment 6 Operating expenditure*, November 2021, p. 18.

50 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 20.

51 APA VTS, *A look at plans for Victorian Transmission System, APA Victorian Transmission System 2023-27 access arrangement proposal overview*, 1 December 2021, pp. 30-33.

not include a forecast for output growth, it does include forecast opex that we consider will be required to operate and maintain the assets created through these investments which are required for security of supply reasons. See the step change discussion on opex related to capex projects in section 6.4.3.2.

6.4.2.3 Forecast productivity

In its revised proposal for the VTS, APA accepted our draft decision, and included an average annual productivity growth of 0.5%.[52] This has decreased our alternative estimate that is the basis for our final decision forecast by $2.4 million ($2022).

In its submission to APA's revised proposal, the Brotherhood of St Laurence stated that a higher productivity growth than 0.5% per year should be applied.[53] As noted in our draft decision we considered the 0.5% productivity growth is an appropriate percentage, given:

- It was applied to the Roma to Brisbane (RBP) and Amadeus gas transmission pipelines which are owned and operated by APA.
- It is the AER's forecast for electricity distributors and the mid-range of estimates for utilities and non-utilities.
- It reflects the economies of scale that APA considered customers are likely to experience for whole of business expenses and efficiencies from technological projects proposed for the 2023–27 access arrangement period.

6.4.3 Step changes

In its revised proposal for the VTS, APA included five step changes totalling $21.0 million ($2022) or 11.2% of its proposed total opex forecast.[54] The cost for these five step changes is $6.6 million ($2022) lower than in the initial proposal, where the step changes were 15.3% of APA's initial total opex proposal. APA's revised proposal:

- Accepted our draft decision SoCI step change alternative estimate of $4.1 million ($2022) and reproposed an additional $1.5 million ($2022).
- Accepted our opex estimate for the WORM capex project and reproposed $1.3 million ($2022) related to the SWP capex project.
- Re-proposed three of the same step changes as in its initial proposal that were not included in our draft decision, as in some cases further information was required. These were for information technology; acquisition of carbon offsets and increases in property tax.

Table 6.7 summarises the step changes APA included in its revised proposals, our alternative estimate that is the basis for the final decision and the difference between them, as well as APA's initial proposal and our draft decision alternative estimate. Our alternative

52 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model*, August 2022.

53 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, p. 20.

54 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue model*, August 2022 and APA VTS, *APA Victorian Transmission System - 2023-27 access arrangement: Response to information request #022*. Received 23 August 2022.; AER analysis.

estimate of step changes for the final decision is $14.1 million ($2022), which is $6.9 million ($2022) lower than APA's revised proposal. This reflects that we have either not included opex for the step change as we do not consider it to be prudent and efficient (the additional SoCI related costs, the property taxes and the acquisition of carbon offsets) or that we have included the step change but at lower a lower cost that we consider is efficient (information technology and opex related to the SWP capex project).

In submissions to APA's revised proposal for the VTS, the Brotherhood of St Laurence stated it did not support an increase in opex between the draft and final decisions which would be due to an increase in the step change allowance.[55] In considering these concerns, our assessment of the step change has focused on determining the prudency and efficiency of the opex costs to determine whether they should be included in our alternative estimate for the purpose of making the final decision. As we consider that there are clear drivers for the information technology step change, and for the opex related to the SWP capex project, we have included them in our estimate of efficient opex. This has resulted in an increase in the step changes in our final decision alternative estimate relative to the draft decision. However, as noted above, and set out below, we have not included all of the step changes proposed by APA in its revised proposal.

Table 6.7 APA VTS's revised proposal step changes and our final decision ($ million, 2022)

Step change	APA VTS initial proposal	AER draft decision	APA VTS revised proposal	AER final decision - alternative estimate	Difference
Transformation of technology	9.4	–	8.1	7.1	-1.0
Opex related to capex projects for WORM and SWP	7.0	1.9	3.1	2.9	-0.2
Security of Critical infrastructure	6.6	4.1	5.6	4.1	-1.5
Property taxes	3.1	–	2.7	–	-2.7
Acquisition of carbon offset certificates	1.5	–	1.5	–	-1.5
Total step change	**27.6**	**6.0**	**21.0**	**14.1**	**-6.9**

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue* model, August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; APA VTS, *APA Victorian Transmission System 2023–27 Access arrangement proposal*, Opex Model, 1 December 2021: AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure*, June 2022, p. 21; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero

[55] Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, pp. 18-20.

6.4.3.1 Transformation of technology

APA's revised proposal for the VTS included a $8.1 million ($2022) step change for information technology related to replacing and migrating to cloud-based services some of APA's critical IT applications. It is based on a whole of business proposal for APA, and costs have been allocated to the VTS using its cost allocation method.[56] This is lower than the $9.4 million ($2022) included in its initial proposal. The majority of these costs are comprised of $6.3 million ($2022) for enterprise resource planning and $1.5 million ($2022) for technological enablement.[57] We have included $7.1 million ($2022) in our alternative estimate that forms the basis for our final decision for information technology. We consider there is a need for this opex, and it is prudent, but that costs of $7.1 million (2022) better reflect an efficient estimate.

Table 6.8 Transformation of technology step change ($million, 2022)

	2023	2024	2025	2026	2027	Total
APA VTS revised proposal	3.7	2.2	0.8	0.8	0.7	8.1
AER final decision - alternative assessment	3.1	1.8	0.8	0.7	0.6	7.1
Difference to APA VTS revised proposal	-0.6	-0.3	–	–	–	-1.0

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue model,* August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; APA VTS, *Information Technology, Victorian Transmission System 2023–27 access arrangement revised proposal*, August 2022, p. 29; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero.

APA explained that the drivers for its proposed IT cloud expenditure are associated with routine upgrades and replacing several legacy IT systems, which are at the end of their technical life, and are unable to be replaced like-for-like due to limited or no vendor support.[58] APA submitted that it is replacing its obsolete IT systems and migrating them to IT cloud-based services. It also appears that the migration to IT cloud-based services may have some service improvements.[59]

APA further submitted that the International Financial Reporting Interpretations Committee has clarified how arrangements in respect of a specific part of cloud technology, Software-as-a-Service (SaaS), should be accounted for.[60] It has clarified that SaaS arrangements are likely to be service arrangements (opex), rather than intangible or leased assets (capex). This is because the customer typically only has a right to receive future access to the

56 APA VTS, *APA Victorian Transmission System 2023-27 access arrangement - Information Technology - Information Paper*, 1 December 2021, p. 8.

57 APA VTS, *APA Victorian Transmission System 2023-27 access arrangement revised proposal*, *Information Technology,* August 2022, p. 29.

58 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement, RIN response and Basis of Preparation*, 1 December 2021, pp. 64-65.

59 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement: Information Technology - Information Paper,* January 2022, pp. 10-25.

60 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement: Information Technology - Information Paper,* January 2022, pp. 10-25.

supplier's software running on the supplier's cloud infrastructure and therefore the supplier controls the intellectual property of the underlying software code. Accordingly, APA has shifted its forecast SaaS expenditure from capex to opex.

We consider that the proposed expenditure addresses a reasonable identified need and is therefore prudent given it relates to obsolete systems which need to be replaced with cloud-based services due to the lack of ongoing vendor support. This is consistent with the industry-wide move to IT cloud and SaaS arrangements. Therefore, we are satisfied that including this step change in our alternative opex forecast is more likely to result in an opex forecast which reasonably reflects the opex criteria and provides APA with a reasonable opportunity to recover at least its efficient costs to meets its IT expenditure requirements on the VTS.

In making our alternative assessment of the efficiency of the costs, we examined the total and disaggregated information technology estimates provided.[61] This included forecast capex and opex for the 2023–27 access arrangement period and actual expenditure in the current (2018–22) and previous (2013–17) access arrangement periods. This information was provided by APA as part of a confidential response. For this reason, a confidential appendix detailing the reason for our decision has been provided to APA and a brief description of the basis for our decision is given below.

In its revised proposal, APA advised that the estimates provided for the information technology opex step change and capex forecasts were based on the best information it had about the scope of the solutions and vendor and business partners cost estimates for the project.[62] However, APA's supporting materials did not include any cost benefit analysis for the options and limited cost estimates or supporting details such as vendor quotes. For this reason, we have not been in a position to separately test the efficiency of the individual components of the proposed information technology step change costs.

In the absence of this information, we conducted a top-down assessment of proposed costs by comparing our estimate of an efficient total expenditure (capex and opex), for the 2023–27 access arrangement period, to total expenditure (capex) in the current (2018–22) and previous (2013–17) periods. We are satisfied that this alternative estimate of total expenditure is lower than, or equivalent to, actual total expenditure in the current and previous periods and APA has demonstrated a corresponding reduction to its capex to support the underlying proposition that the substitution and movement to opex solutions is efficient. While we would normally prefer to assess the efficiency of the disaggregated costs as part of our assessment, we are satisfied that APA has demonstrated that expenditure for the IT step change is an efficient capex / opex trade-off.

In a submission to the revised proposal, the Brotherhood of St. Laurence and its consultant TRAC partners stated that they agreed with AER in terms of the need to assess the prudency and efficiency of the step change and also noted that service improvements are not a consumer priority.[63] As set out above, we consider there is a need for this step change,

61 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement*: *Response to information request #027 information and operational technology – capex and opex – confidential.* Received 6 October 2022.

62 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement Revised Proposal - Information Technology,* August 2022, p. 30.

63 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, p. 19..

and that it is prudent, and that our alternative estimate for the information technology step change better reflects an efficient estimate that is justified on the basis of a capex / opex trade-off.

6.4.3.2 Opex related to capex projects for WORM and SWP

APA's revised proposal for the VTS included a step change for ongoing opex costs related to operating and maintaining the WORM and SWP capex projects. This included opex costs of $1.3 million ($2022) ($0.3 million ($2022) per annum) for the 2023–27 access arrangement period.[64] However, APA did not include these costs in its revised proposal total opex estimate, as it mistakenly understood that we had included these costs in our draft decision. APA clarified that the $1.3 million ($2022) in SWP compressor opex costs should be added to its revised proposal for total opex costs, as set out in its post-tax revenue model.[65] In making our final decision, and consistent with our draft decision, we have included $3.0 million ($2022) in opex costs associated with the WORM capex projects.[66] We have also included $1.0 million ($2022) ($0.2 million ($2022) per annum) in our alternative estimate that is the basis for our final decision for opex associated with the SWP capex project, which we consider is efficient expenditure.[67]

Table 6.9 Opex from Capex (WORM and SWP) step change ($million, 2022)

	2023	2024	2025	2026	2027	Total
APA VTS revised proposal	0.6	0.6	0.6	0.6	0.6	3.1
AER final decision – alternative assessment	0.6	0.6	0.6	0.6	0.6	2.9
Difference to APA VTS revised proposal	-0.04	-0.04	-0.04	-0.04	-0.04	-0.2

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement*, *Revised - Post tax revenue model,* August 2022 and APA VTS, *APA Victorian Transmission System - 2023–27 access arrangement: Response to information request #022*. Received 23 August 2022; AER analysis.
Note: Numbers may not add up to total due to rounding.

APA's initial proposal for the VTS stated that these 'expansion' projects are driven by security of supply and not output growth.[68] For this reason, and consistent with our draft report, we do not consider that these projects contribute to output growth for APA.

64 APA VTS, *Business Case AA6 – SWP Expansion – Winchelsea 2nd Unit – Final,* 17 May 2022, p. 14.

65 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model*, August 2022 and APA VTS, *APA Victorian Transmission System - 2023-27 access arrangement: Response to information request #022*. Received 23 August 2022.

66 As noted in our draft decision $0.6 million per annum for the WORM opex ($3.0 million ($2022) over the access arrangement period) is included in our alternative estimate, made up of $0.2 million in the final year increment for 2022 and $0.4 million ($2022) per year thereafter. This has resulted in $1.9 million ($2022) being included in our alternative estimate of the step change and $1.1 million ($2022) in the final year increment as these costs were included in the AER's last determination for the access arrangement. - AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, pp. 23–25.

67 In our draft decision we did not include these opex costs as the business case was not provided with sufficient time or detail to assess the efficiency of these costs. APA VTS, *Business Case AA6 – SWP Expansion – Winchelsea 2nd Unit – Final,* 17 May 2022, p. 14

68 APA VTS, *A look at plans for Victorian Transmission System, APA Victorian Transmission System 2023-27 access arrangement proposal overview*, 1 December 2021, pp. 30–33.

APA's business case for the SWP capex project included opex costs of $1.3 million ($2022) ($0.3 million ($2022) per annum) for the 2023–27 access arrangement period.[69] APA's business case was for a new Winchelsea compressor at an existing site for the SWP. APA stated in its revised proposal that as a part of determining the efficient costs, comparisons should be made to compressors currently in use at its Wollert site (also part of the WORM) which have a forecast opex of $0.3 million ($2022) per annum.[70] In response to information requests, APA provided actual disaggregated opex costs for existing compressors at its Winchelsea and Wollert sites.[71] APA's business case also detailed the operational mode information for the new and existing Winchelsea compressors, which would be operated by the Australian Energy Market Operator (AEMO).

We have included $1.0 million ($2022) for the SWP compressor project in our alternative assessment after considering operational mode information from AEMO[72] and analysis of the efficiencies of the opex and capex costs provided by the AER's consultants Zincara.[73] AEMO confirmed the operational information provided by APA, but disagreed with the view that a comparison should be made to the existing Wollert compressors, as these compressors are akin to baseload operations, whereas the Winchelsea compressors are expected to run as winter peak demand units. Zincara also recommended including a lower opex costs of $1.0 million ($2022) in our alternative assessment as it considered this was more likely to reflect future efficient costs, noting it reflected the current operating hours and costs of the existing Winchelsea compressor incurred during 2021.

In submissions received to APA's revised proposal, AGL Energy and Lochard Energy stated that they supported the WORM and SWP augmentation.[74] The Brotherhood of St Laurence, and its consultant TRAC partners, stated that they disagreed with the opex cost for the new SWP Winchelsea compressor and APA's statement that the unit will be run more often.[75] It also stated that if the units are run in lieu, costs would be reduced in the existing compressor and that while it acknowledged that running two compressors (at the Winchelsea site) in series may deliver additional capacity, it does not follow that additional opex will be incurred. In reviewing the operational hours and actual costs for the existing SWP Winchelsea compressor, we believe we have taken these concerns into account.

69 APA VTS, *Business Case AA6 – SWP Expansion – Winchelsea 2nd Unit – Final,* 17 May 2022, p. 14.

70 APA VTS, APA *Victorian Transmission System 2023-27 access arrangement - Revised proposal.* 10 August 2022. p 92.

71 APA VTS, APA *Victorian Transmission System 2023-27 access arrangement, Response to information request #022 excel spreadsheet Compressor opex costs 2018-2021*. Received 12 September 2022.

72 Australian Energy Market Operator (AEMO), *Email Response to AER query regarding the SWP Winchelsea compressor*. Received 16 September 2022.

73 Zincara, *Operating expenditure review Winchelsea compressor, prepared for AER. – Public.* 29 November 2022. pp 1-7.

74 Lochard Energy, *Submission APA Victorian Transmission System Access Arrangement 2023-27,* 19 August 2022. p. 1.: AGL Energy Limited, *Submission – Draft decision: APA Victorian Transmission System Access Arrangement 2023-27.* 6 September 2022. pp 1-2

75 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, pp. 19, 20 & 27.

6.4.3.3 Security of Critical infrastructure

In its revised proposal for the VTS, APA accepted the $4.1 million ($2022) included in our draft decision for SoCI costs and proposed an additional $1.5 million ($2022) that we did not include in our draft decision.[76] In making this final decision, and consistent with our draft decision, we have included opex of $4.1 million ($2022) related to the SoCI step change in our alternative estimate.[77] We consider these costs are prudent and efficient, but have not included the $1.5 million ($2022) as we do not consider these are prudent and efficient. A confidential appendix detailing the reason for this decision has been provided to APA and a brief description is given below.

Table 6.10 Security of Critical infrastructure step change ($million, 2022)

	2023	2024	2025	2026	2027	Total
APA VTS revised proposal	1.0	1.0	1.2	1.2	1.2	5.6
AER final decision - alternative assessment	0.8	0.8	0.8	0.8	0.8	4.1
Difference to APA VTS revised proposal	-0.1	-0.2	-0.3	-0.4	-0.4	-1.5

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model,* August 2022; AER analysis.
Note: Numbers may not add up to total due to rounding.

In terms of the legislative requirements for security of critical infrastructure, we noted in our draft decision that the original *Security Legislation Amendment (Critical infrastructure) Bill 2020* was divided into two separate parts. The first part became the *Security Legislation Amendment (Critical Infrastructure)* Act *2021* in December 2021 and put the requirements for entities to report cyber security incidents, and the setting up of a regime for the Commonwealth to respond to serious cyber security incidents.[78] The second part became the *Security Legislation Amendment (Critical Infrastructure Protection) Act 2022* in April 2022, which requires responsible entities to have and comply with a critical infrastructure risk management program (RMP) and also imposes enhanced cyber security obligations that relate to Systems of National Significance.[79]

Our technical advisory group reviewed APA's revised proposal and provided advice to us. On the basis of their advice, as per the draft decision, we have included $4.1 million ($2022) in our alternative estimate that is the basis for this final decision. We consider these costs are prudent and efficient, but have concluded the $1.5 million ($2022) costs included in the revised proposal (additional to those we included in our draft decision) are not prudent.

In a submission received for the revised proposal, TRAC Partners on behalf of the Brotherhood of St. Laurence stated that they support the reasoning provided in our draft

[76] APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement Reset RIN Response – Public, Access Arrangement RIN response and Basis of Preparation*, 1 December 2021, p. 62.

[77] AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, pp. 25–26.

[78] Australian Government, *Security Legislation Amendment (Critical Infrastructure) Act 2021,* December 2021.

[79] Australian Government, *Security Legislation Amendment (Critical Infrastructure Protection) Act 2022,* April 2022. Part 4-6A. & Australian Government, Cyber and Infrastructure Security Centre. *Risk Management Program.*

decision as to the type of expenditure for the security of critical infrastructure which would comply with the requirements of the National Gas Rules.[80]

6.4.3.4 Property taxes

In its revised proposal for the VTS, APA reproposed the property tax step change, but at a reduced amount of $2.7 million ($2022) compared to the $3.1 million ($2022) in its initial proposal. Consistent with our draft decision,[81] our final decision is to not include the property tax step change in our alternative estimate. This is because we do not consider sufficient information has been provided to substantiate that it is prudent and efficient, and to demonstrate that it is not already included in forecast trend.

Table 6.11 Property taxes step change ($million, 2022)

	2023	2024	2025	2026	2027	Total
APA VTS revised proposal	0.5	0.5	0.5	0.5	0.5	2.7
AER final decision - alternative assessment	–	–	–	–	–	–
Difference to APA VTS revised proposal	-0.5	-0.5	-0.5	-0.5	-0.5	-2.7

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model,* August 2022; AER analysis.
Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '–0.0' represent small amount and '–' represents zero.

APA's initial proposal for the VTS included a step change of $3.1 million ($2022) related to increases in property tax.[82] APA noted that a delay in issuing the land tax notices for 2019–20 meant that it had to accrue costs related to payment of land tax for its base year of 2020 based on the 2018 land tax notice.[83] In our alternative estimate for the draft decision we did not include this step change as we did not consider that APA had provided sufficient information to demonstrate that this step change was prudent and efficient. We further highlighted that insufficient information was provided to explain the underlying basis for the change in costs, and raised concerns whether all the properties included in APA's property tax assessment are properties used solely for regulated purposes.[84]

In its revised proposal for the VTS, APA reproposed the property tax step change at a reduced amount of $2.7 million ($2022), or a reduction of 14.7%. APA noted that it had adjusted its land tax notice, on a pro rata basis, for land that is leased to third party tenants

80 TRAC Partners – prepared for the Brotherhood of St. Laurence, *Response to AER draft decision & APA Victorian Transmission System (VTS) Revised 2023–27 Access Arrangement Proposal,* September 2022, p. 27.

81 AER, *Draft Decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 26.

82 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement – Forecast Opex Model*, 1 December 2021.

83 APA VTS, *APA Victorian Transmission System 2023–27 Access Arrangement Reset RIN Response – Public Access Arrangement RIN response and Basis of Preparation,* 1 December 2021, p. 59.

84 AER, *Draft Decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 27.

leading to a reduction in the step change.[85] Regarding the property tax costs, APA stated that it is not obvious whether this item should be classified as a step change, category specific forecast, or adjustment to the base year costs, but that it is clear that the base year opex does not include the actual level of property taxes to be incurred by APA VTS in the provision of the reference service. APA also noted that the increase in costs is due to both an increase in valuation from $19.4 million ($2022) in 2016 to $37.1 million ($2022) in 2022, and from a tax rate increase from 2.1% to 2.5% over the same period.

In response to concerns we raised in our draft decision, APA also provided further information on this step change, including noting that the Victoria State Revenue Office levies property taxes under the *Victorian Taxation Administration Act 1997.*[86] It also noted that the *Victorian Taxation Administration Act 1997* provides for the State Revenue Office Commissioner to assess or re-assess the tax liability of a taxpayer independent of prior legislative or policy changes. APA then explained that the under-accrual was caused by an error in the State Revenue Officer assessment for 2018, in which the assessed land values were incorrectly understated relative to the 2017 assessments.

We have not included this step change in our alternative assessment for two main reasons:

- In our assessment of this step change, it was not apparent what the driver of these tax assessment changes are, including whether these are due to temporary or permanent measures. APA did not provide information to explain any underlying basis for these changes in costs, such as variations to legislation, or changes to underlying valuation policies or methodologies, including supporting information that these will continue. Instead, APA noted that the Commissioner has scope to assess, or re-assess, the tax liability.[87] In this regard, we are not satisfied that APA has acted as a prudent operator in response to the events surrounding the land tax notices, as it does not appear to have made a meaningful effort to understand the basis of the significant change in costs. This includes engaging with the State Revenue Office, either for the 2018 notice when it materially decreased relative to 2017, or in the post-2018 notices when it materially increased again. In this regard, we note that when we asked about the tax rate increases from 2.1% to 2.5%, APA also explained that it should instead have specified that there was an increase in composite tax rates from 2022 (e.g. increased tax rate from 1.3% to 1.6% for incremental amounts above $1.8 million).[88]
- In any event, we consider that our trend forecast sufficiently compensates the business for these increases. Specifically, we note that this is only one of APA's cost inputs, and that our trend forecast includes an allowance for non-labour price growth proxied by the CPI. While some inputs may increase by more than CPI (as appears to be the case here), others may increase by less. We are therefore not convinced that the nature of

85 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, pp. 97-99.

86 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, p. 97.

87 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised* Proposal, August 2022, p.97.

88 APA VTS, *APA Victorian Transmission System 2023-27 Access Arrangement, Response to Information request #028– Property tax – Q5*. Received, 28 September 2022.

these increases will be ongoing and sufficiently exceptional to materially change total opex over time beyond what is captured through our price growth forecast.

In addition, we also highlight that we have concerns with APA's choice of accrual amounts for 2020. We observe that the 2017 tax liability was greater than in 2018, on which the 2020 accrual is based on. Therefore, we note that if the 2017 amount was used as the basis for accrual, rather than 2018 which APA acknowledged was understated relative to 2017,[89] a materially lower increase in land tax liability would have been required. This brings into question the basis for any increase in costs if we were to include a step change.

Regarding the classification as a step change, we also highlight that although we have considered the appropriate treatment of these costs as a step change, our assessment indicates that these costs would not qualify and not be included had we considered them as a base adjustment or category specific forecast.

In its submission to the revised proposal, CCP28 echoed our argument in the draft decision that legislative change is needed to support the basis for this step change.

6.4.3.5 Acquisition of carbon offset certificates

In its revised proposal, APA reproposed a $1.5 million ($2022) carbon offset certificate step change. It considered this aligns with community expectations, and expectations of the new climate change legislation, but also noted that there is no clear legislative obligation for it to purchase carbon offset certificates.[90] Consistent with our draft decision, our final decision is to not include the carbon offset step change as we do not consider it is prudent and efficient.[91]

Table 6.12 Acquisition of carbon offset certificates step change ($million, 2022)

	2023	2024	2025	2026	2027	Total
APA VTS revised proposal	0.3	0.3	0.3	0.3	0.4	1.5
AER final decision - alternative assessment	–	–	–	–	–	–
Difference to APA VTS revised proposal	–0.3	–0.3	–0.3	–0.3	–0.4	–1.5

Source: APA VTS, *APA Victorian Transmission System 2023–27 access arrangement, Revised - Post tax revenue model,* August 2022; AER analysis.
Note: Numbers may not add due to rounding. Amounts of '0.0' and '–0.0' represent small amounts and '–' represents zero.

APA's initial proposal for the VTS included a step change of $1.5 million ($2022) over the 2023–27 period for the acquisition of carbon offset certificates.[92] We did not include this step

89 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised* Proposal, August 2022, p.97.

90 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, pp. 93–94.

91 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, pp. 28–29.

92 APA VTS, *APA VTS 2023–27 Access Arrangement Reset RIN Response – Public, Access Arrangement RIN response and Basis of Preparation*, 1 December 2021, p. 61.

change in our alternative estimate for the draft decision as we did not consider that it was prudent and efficient. In our draft decision, we also noted that there was no clear obligation for this step change, and in the absence of this, APA had provided no evidence of customer engagement or support.[93] We also highlighted our concerns about APA's proposed carbon accounting methodology.[94]

In its revised proposal, APA reproposed a $1.5 million ($2022) carbon offsets step change. APA stated that this proposal aligns with expectations from CCP28, which APA quoted as stating that "increasingly communities expect governments (and businesses) to take action to respond to climate change".[95] APA further stated that this is especially important now that the *Climate Change Bill 2022* has been passed through the lower house and is poised to become legislation, but acknowledged that at the time of lodgement, there is no clear legislative obligation for it to purchase carbon offset certificates.

APA then provided details on how it estimated its carbon emissions, suggesting the VTS carbon emissions, and subsequently its carbon footprint, is limited to only estimating the Scope 1 fugitive emissions from the VTS pipelines.[96] Specifically, APA used the carbon accounting methodology detailed in the *National Greenhouse and Energy (Measurement) Determination 2008* to estimate the emissions associated with its pipelines. APA further stated that it cannot reduce its reported emissions through making operational or equipment changes, but rather only through the purchase of offsets. APA also noted emissions associated with the fuel gas used in compressor operations are reported by the AEMO, as AEMO operates the VTS compressors, clarifying that the Clean Energy Regulator has ruled that the AEMO has operational control of the VTS excluding maintenance facilities. APA stated that its maintenance emissions are principally as a result of pipeline fugitive emissions, with a minor contribution from transport vehicles, which due to their minor nature, were excluded from the proposal.

We have not included this step change in our final decision and consider no new substantive information was provided that addresses the concerns raised in the draft decision. In this regard, we do not consider the proposed step change is prudent or efficient. In terms of the issues raised by APA in its revised proposal, we consider:

- APA appears to have taken CCP28's comments as consumer support for these changes but has provided no further evidence in relation to consumer engagement or support for the step change. We do not consider CCP28's comments are sufficient to show consumer support for the step change and note, as outlined below, that CCP28 has concerns with the step change. Further, APA appears to have interpreted CCP28's comments relatively narrowly, including to only take action in the step change to

93 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 28.

94 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 29.

95 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, p. 93-94.

96 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, p. 94.

respond to climate change on a limited portion of its carbon footprint, namely only the portion where consumers are bearing the financial burden of the action.

- The now passed *Climate Change Act 2022* does not introduce new legislative obligations on the VTS, and in the absence of a clear legislative obligation, APA again provided no evidence that it has consulted, or has the support of, its consumers on this step change.
- As stated in our draft decision,[97] to the extent that there was a clear obligation or customer support, we are not satisfied that APA's suggested carbon accounting methodology represents a genuine contribution to take action to respond to climate change. In particular, APA appears to incorrectly suggest that its carbon footprint for the VTS is limited to fugitive emissions associated with its pipelines, and therefore also incorrectly concludes that its only option for emission reduction is via the purchase of carbon offsets.[98] We highlight that the operation of the VTS is materially more involved than just one asset class, and thus subsequently also includes a significantly greater number of emission sources than just its pipelines. Genuine action to respond to climate change, using an appropriate carbon accounting methodology that captures its full carbon footprint, would therefore enable significant scope for APA to achieve low-cost emission reduction to its remaining Scope 1, 2 or 3 emissions. For instance, this may include renewable energy projects or purchases to reduce its Scope 2 emissions, or procurement and supply chain decarbonisation policy initiatives to address its Scope 3 emissions arising from its maintenance requirements or capital works projects.

In submissions received to APA's revised proposal, CCP28 highlighted that no further evidence of consumer engagement was provided and noted that APA has no formal requirement to purchase carbon offsets. Further it questioned the appropriateness of the carbon accounting methodology.[99] TRAC Partners for the Brotherhood of St Laurence observed that the revised proposal does not appear to address the concerns in our draft decision,[100] and reiterated its strong opposition of this proposal and that it does not accept APA's logic that it is limited to emission reduction only through offsets. The Brotherhood of St Laurence also noted that passing the offset costs to consumers undermines the incentive function of offsets, arguing that offsets do not qualify as a step change and should not be funded through revenue.[101] The EUAA noted APA's comment on the relatively small cost impact of this step change and emphasised that a low cost burden is not a reason to keep proposing it when consumers say they oppose it in principal.[102] As outlined above, we agree with many of the issues raised in stakeholders' submissions and have not included this step change in our final decision.

97 AER, *Draft decision, APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 6 Operating Expenditure,* June 2022, p. 29.

98 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, p. 94.

99 CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27 CCP28 Advice to the AER – Revised Proposal*, 31 August 2022, p. 15.

100 TRAC Partners – prepared for the Brotherhood of St. Laurence, *Response to AER draft decision & APA Victorian Transmission System (VTS) Revised 2023–27 Access Arrangement Proposal,* September 2022, p. 28.

101 Brotherhood of St. Laurence, *2023–2028 Victorian Gas Transmission System (VTS) Access Arrangement – Submission from BSL to the AER's Draft Determination and APA's Revised Proposal*, September 2022, p. 20.

102 EUAA, *Submission – APA Victorian Transmission System Access Arrangements,* 7 September 2022, p. 2.

6.4.4 Category specific forecasts

6.4.4.1 Debt raising costs

APA proposed debt raising costs of $3.3 million ($2022). We have included debt raising costs of $3.4 million ($2022) in our alternative estimate for the final decision. This is a difference of $0.1 million ($2022) in our final decision alternative estimate for debt raising costs compared to that proposed by APA for the VTS.[103]

Debt raising costs are transaction costs a service provider incurs each time it raises or refinances debt. Our preferred approach is to forecast debt raising costs based on a benchmarking approach rather than a service provider's actual costs for consistency with the forecast of the cost of debt in the rate of return building block.

We used our standard approach to forecast debt raising costs, which is discussed further in Attachment 3 to the draft decision.

6.4.4.2 Linepack and spares allowance

APA's revised proposal for the VTS accepted our draft decision and did not include linepack and spares allowance costs in its opex forecast. Rather, it proposed that these be included in the regulatory capital base, noted its reasoning for this and that an adjustment had been made to the revised proposal Post Tax Revenue Model.[104] These issues and our responses are discussed in Attachment 2.

6.4.4.3 Access arrangement allowance

APA's revised proposal for the VTS accepted our draft decision and removed access arrangement costs from its opex forecast. APA instead proposed to treat the access arrangement costs as capital expenditure for the next access arrangement period.[105] This issue and our response is discussed in Attachment 5.[106]

103 APA VTS, *APA Victorian Transmission System 2023-27 Access arrangement – Revised - Post tax revenue model*, August 2022; APA VTS, *APA Victorian Transmission System - 2023-27 access arrangement: Response to information request #022.* Received 23 August 2022.

104 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, pp. 99-103.

105 APA VTS, *APA Victorian Transmission System 2023–27 access arrangement. Revised proposal – Overview of Revised Proposal*, August 2022, pp. 103-104.

106 AER, *Final Decision, Victorian Transmission System (VTS) Access Arrangement2023 to 2027 (1 January 2023 to 31 December 2027) – Attachment 5 Capital Expenditure,* December 2022.

A Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
APA / APA VTS	APA VTS Australia (Operations) Pty Ltd and APA VTS Australia (NSW) Pty Ltd
Capex	Capital Expenditure
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
OEIM	Operating expenditure incentive mechanism
Opex	Operating Expenditure
PTRM	Post-tax revenue model
RBA	Reserve Bank of Australia
RFM	Roll forward model
RIN	Regulatory Information Notice
VTS	Victorian Transmission System
WACC	Weighted average cost of capital