Attachment 2

Operating expenditure

Access arrangement information

ACT and Queanbeyan-Palerang gas network 2021–26

Submission to the Australian Energy Regulator

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evoenergy

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2 Operating expenditure

Key points

Operating expenditure (opex) covers the day to day costs Evoenergy incurs to operate and maintain the gas network to ensure safe and reliable gas services for our customers.

Opex is a major component of our building block costs, accounting for 60 per cent of the total revenue required over the 2021-26 period.

Evoenergy has forecast most of its opex using the AER's preferred base-step-trend methodology. For government charges, unaccounted for gas (UAG) and the IT asset utilisation fee (ITAUF), a 'bottom-up' category specific approach has been adopted. These category specific costs account for a third of Evoenergy's opex forecast.

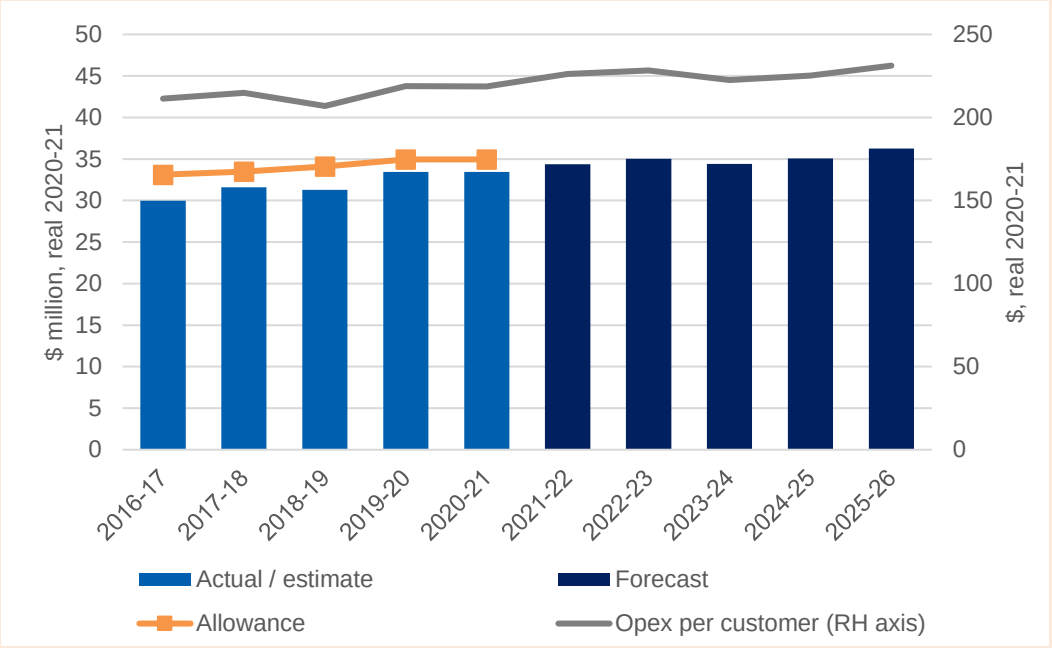
Evoenergy's forecast opex for the 2021-26 access arrangement period is $175 million,[1] $5 million or 3 per cent higher than the AER's allowance for the current period and $15 million or 10 per cent higher than actual opex for the current period. Over half of this increase is driven by category specific costs, reflecting an increase in the ACT Government's Utilities Network Facilities Tax (UNFT). Also contributing to the increase, is a change in the treatment of pipeline inspection (pigging) costs, which were capitalised in the current period and are proposed to be expensed in the 2021-26 period. While this change increases opex, there is a corresponding reduction in capex.

Our opex forecast reflects our best estimate of the efficient costs required to continue to provide safe and reliable gas pipeline services to consumers and reflects the feedback we received by striking a balance between reliability and affordability.

The figure below compares Evoenergy's forecast opex for 2021-26 with the AER's allowance and actual opex for the current period of 2016-21.

[1] Unless otherwise stated, all values in this attachment are presented in 2020-21 real dollar terms.

Evoenergy's forecast opex for 2021-26 with the AER's allowance and actual opex for the current period



2.1 Introduction

The National Gas Rules (Rules) state that the access arrangement must include the following:[2]

(a)(ii) operating expenditure (by category) over the earlier access arrangement period;

(e) a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived;

Rule 91 sets out the criteria governing operating expenditure:

(1) Operating expenditure must be 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.

(2) The forecast of required operating expenditure of a pipeline service provider that is included in the full access arrangement must be for expenditure that is allocated between:

(a) reference services;

(b) other services provided by means of the covered pipeline; and

(c) other services provided by means of uncovered parts (if any) of the pipeline, in accordance with rule 93.

In accordance with the Rules, this attachment details Evoenergy's opex over the 2016-21 access arrangement period and presents Evoenergy's forecast of opex for the 2021-26 access arrangement period. This attachment explains the basis on which the forecast

[2] Rules, cl.72(1)

has been derived and why the resulting forecast reflects the level of expenditure that would be incurred by a prudent service provider acting efficiently. It also explains how the feedback we received from consumers has informed the development of our opex forecast.

2.2 Opex for 2016-21

The AER's opex allowance for the current 2016-21 access arrangement period is $171 million. Evoenergy expects its actual opex to be $160 million over the 2016-21 period, 6 per cent below the allowance.

Figure 2.1 provides a breakdown of the costs to maintain, operate and support a safe and reliable gas network during the 2016-21 period.

Figure 2.1 Indicative breakdown of operating costs

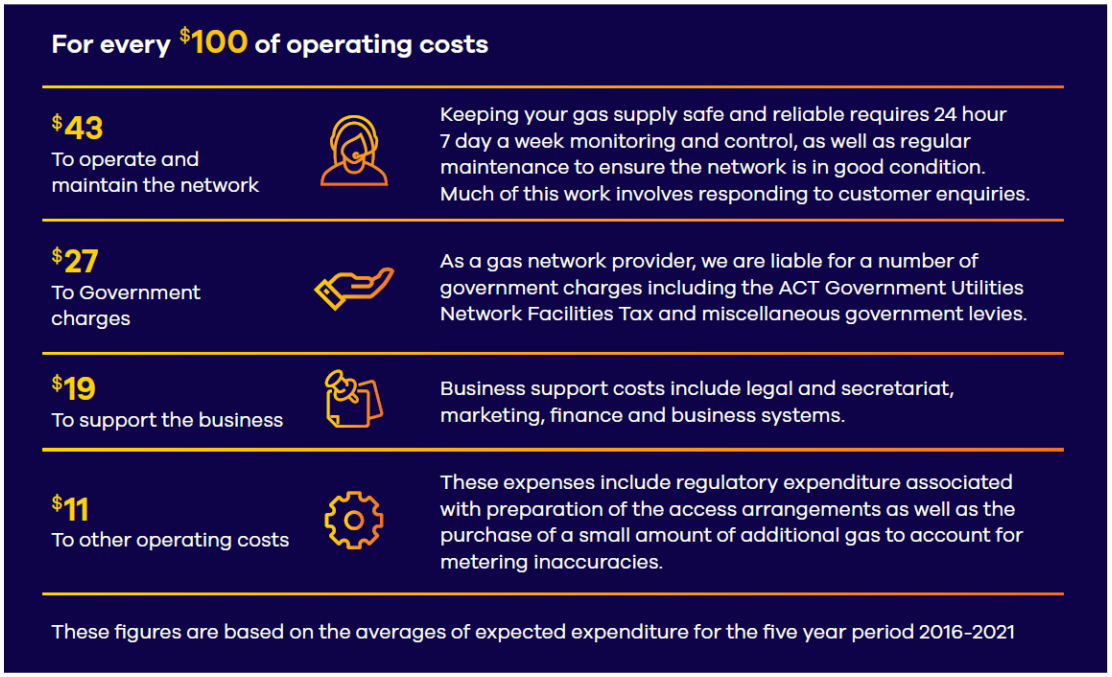


Table 2.1 provides a breakdown of actual and estimated opex for the current access arrangement period by category. This breakdown has been prepared on the basis of actual expenditure to January 2020 and estimates for the remainder of the period.

Table 2.1 Breakdown of actual opex by category

$ million 2020/21	2016/17	2017/18	2018/19	2019/20	2020/21
Controllable costs	17.62	19.87	20.05	20.50	20.75
Energy Industry Levy	0.48	0.83	0.63	0.48	0.47
Utilities Network Facilities Tax	7.06	7.39	7.70	8.16	7.96
Unaccounted for Gas	2.53	2.01	1.70	1.65	1.61
IT Asset Utilisation Fee	1.00	0.94	0.88	0.83	0.81
Other	1.29	0.55	0.32	1.81	1.85
Total	**29.98**	**31.59**	**31.27**	**33.43**	**33.45**

2.3 Consumer feedback

Our opex forecast has been informed by what we heard throughout our engagement program. The main themes of feedback relating to our opex forecast are outlined below.

2.3.1 Safety and reliability

Consumers told us they are satisfied with how we maintain the gas network, manage the safety of the network and respond when there is a supply problem. Evoenergy's survey results indicated that 68 per cent of respondents either strongly agreed or agreed that the gas network is maintained in good order with only 1 per cent of customers disagreeing (the remainder did not know or were undefined). Of the respondents that did have a view on Evoenergy's responsiveness and network safety, nearly all agreed that Evoenergy is very responsive in the event of a gas problem and had no concerns about the safety of the network. Consumers expect us to continue to prioritise reliability and safety, and the Citizens' Jury recommended that we continue to maintain infrastructure while we continue to consider the future of the gas network.

Our opex forecast will allow us to continue to maintain the level of service consumers told us they value and expect.

2.3.2 Affordability

Evoenergy also received feedback on affordability, with many consumers indicating that current prices are too high and there was a need to focus on reducing network charges going forward. Evoenergy's survey indicated that 51 per cent of respondents think that the price of gas is unreasonable, with only 19 per cent considering prices to be reasonable.[3]

Evoenergy recognises that opex makes up the largest share of the revenue requirement and therefore minimising opex wherever possible is important for delivering lower network prices to consumers. Evoenergy's opex forecast includes a reduction in the base year costs (reflecting efficiencies achieved over the current regulatory period) and a reduction in the proposed growth rate, including a 0.5 per cent year on year improvement in productivity. Evoenergy has not included any additional expenses for increased insurance premiums or for the analytics and planning involved in working toward the ACT Government's zero net emissions target. However, there are some expenses that are outside of Evoenergy's control that are expected to increase significantly, most notably the ACT Government's UNFT.

Overall, Evoenergy considers that its proposed opex forecast strikes the right balance between ensuring the reliability and safety of the network and delivering affordable prices to consumers.

2.3.3 Marketing expenditure

Our base opex (detailed in section 2.5 below) includes marketing expenditure, which covers our 'gas rewards' cash back program. We received some feedback asking how our gas rewards marketing expenditure supports the long-term interests of consumers.

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[3] It is important to note that consumers were commenting on retail gas prices, not network prices specifically. While Evoenergy's network charges account for only 25 per cent of the average residential retail bill, Evoenergy is focused on keeping network charges as affordable as possible.

In some areas of Canberra and Queanbeyan, the limitations of the existing electricity network constrain the ability of customers to upgrade their electricity supply to allow switching to electric appliances. In addition, the upgrade to house wiring may be prohibitively expensive for some consumers.

We also know that some consumers continue to have a preference for gas for a variety of reasons. As part of our consumer engagement activity for this access arrangement, we conducted an online survey which found that almost 60% per cent of survey respondents expect to use the same or more gas over the next 5-10 years.

Evoenergy continues to invest in the its Winter Gas Rewards Program to encourage existing gas customers, who choose or need to continue using gas, to replace an existing gas appliance with a new 5-star or 6-star energy efficient appliance. We work with appliance manufacturers and retailers to ensure that the cash back offer applies only to appliances that meet determined efficiency criteria, while providing freedom for consumers to choose appliances that suit their needs and housing characteristics. We are hopeful that these offers will be taken up by low income households and landlords and would welcome further feedback from consumers on how this program can best target these groups.

Keeping customers who choose to continue to use gas is in the long term interests of Evoenergy's gas consumers as using energy efficient appliances reduces the bills of those customers who have taken advantage of the gas rewards program. In addition, it will deliver bill reductions to all customers by maintaining the customer base over which our costs are spread.

Evoenergy's incentive payments are quite modest compared to offers for other energy products in the market. These modest incentives are recovered over the life of the appliance and greatly benefit those consumers who cannot switch to electric appliances. The popularity of the Winter Rewards Program illustrates the underlying popularity of gas appliances with the majority of the Canberra and Queanbeyan Community.

2.3.4 Transitioning to a net zero emissions future

As detailed in our Overview and in Attachment 1, much of the feedback from consumers focussed on the future of the gas network in the Canberra region and on transition issues associated with achieving the Government's net zero emissions target. Consumers wanted to understand the costs and benefits associated with different options for achieving the target and how the transition would be managed, particularly in relation to reliability of supply and assistance for vulnerable customers. A strong message coming out of our Citizens' Jury was the need for Evoenergy to communicate effectively with the community throughout the transition journey.

In the interest of affordability, we have not included additional expenditure in our opex forecast to undertake this analysis but will aim to carry out this work within our base level opex.

2.4 Method for forecasting opex for 2021-26

The majority of costs for the 2021-26 access arrangement period have been forecast using the AER's preferred 'base-step-trend' method. This involves starting with the operating costs from a base year then applying a rate of change (or trend) to account for network growth and input costs and adjusting for any 'step changes' in future operating circumstances that are likely to alter costs significantly.

For government charges, UAG and ITAUF, forecasts have been prepared using a 'bottom-up' category specific approach, as we consider this to produce the best estimate for these costs. Our tariff variation mechanism (see Attachment 10) includes a 'true-up' for the difference between forecast and actual costs for government charges and UAG.

The resulting elements of our opex forecast are summarised in Figure 2.2 and discussed in turn in the following sections. Evoenergy's opex model is provided as Appendix 2.1.

Figure 2.2 Operating cost forecast, 2021-26

Total operating costs forecast of $175.1 million

$113.0 million base year operating costs	$2.0 million to trend base operating costs	$2.3 million for a step change	$58.0 million category specific forecasts
• We are proposing 2019/20 as our efficient base year for forecasting purposes	• The rate of change we apply to trend base opex includes: • real labour price growth • network growth including the number of customers we serve and length of our gas mains • expected improvement in productivity	• To change treatment of pigging activities from capex to opex	• Costs that we have forecast using specific forecasts for each category and include: • Utilities network facilities tax of $45.3 million • Energy Industry Levy of $3.2 million • Unaccounted for gas of $8.8 million

*May not sum due to rounding.

2.5 Base year

Evoenergy has adopted 2019/20 as the base year, consistent with the AER's standard practice of selecting the penultimate year of the current regulatory period as the base year when an opex incentive scheme is in place (as Evoenergy has no incentive to inflate opex in this year). This will be the most up-to-date full year of data available when the AER makes its final determination, providing the best estimate of future opex.

For the purpose of this proposed access arrangement, Evoenergy has used actual opex to the end of January 2020 and estimates for the remainder of the year.

2.5.1 Base year adjustments

The base year has been adjusted to remove category specific costs that are forecast separately. An adjustment is also made for the change in opex between the base year and the final year following the AER's standard methodology. The resulting adjusted base year is presented in Table 2.2.

Table 2.2 Base year adjustments

	$ million, 2020/21
Actual/estimated opex 2019/20	33.43
Estimated change in opex between base year and final year	0.02
Category specific costs	-10.85
Adjusted base year	**22.60**

2.5.2 Efficiency of base year opex

Operating costs account for a significant share of gas network charges, and we are acutely aware of the importance of operating efficiently to help keep costs and prices down for our customers.

We consider our base year costs to be reflective of the level of expenditure that would be incurred by a prudent service provider acting efficiently for the following reasons:

- benchmarking suggests that our opex is in line with our peers;
- we operate under an efficiency carryover mechanism, which provides an ongoing incentive to achieve efficiency improvements; and
- our base year opex is below the level approved as efficient by the AER for the current regulatory period.

2.5.2.1 BENCHMARKING PERFORMANCE

We engaged Economic Insights (EI) to benchmark our performance over time and against other gas distribution businesses (GDBs) in Australia. The full Economic Insights report is provided as Appendix 2.2 and contains the following key findings:

- Based on partial performance indicators:
  - Evoenergy's average opex per customer over the latest five-year period was $120 (2010 dollars), which was well below the average opex per customer for the six GDBs with the lowest customer density ($151). The seven GDBs with higher customer density tended to have lower opex per customer.
  - Evoenergy's opex per km of mains was $3,685 over the latest five-year period, which is lower than the average for the GDBs with lower customer density ($4,449 for the latest five years). The average opex per km for GDBs with higher customer densities was similar to the average for those with lower customer density.
- Based on total factor productivity indexes:
  - Evoenergy's opex partial factor productivity (PFP) increased at an average annual rate of 2.5 per cent from 1999 to 2019. EI found that most GDBs had strong rates of growth in opex PFP that were comparable to Evoenergy.
- Based on multilateral total factor productivity:
  - Evoenergy had the fifth highest opex PFP level in the last year of the sample.
- Based on econometric analysis:

- Evoenergy's efficiency score is 0.85, with a confidence interval of between 0.80 and 0.90. The average efficiency score of all GDBs in the sample is 0.88 and the highest efficiency score is 0.98. This suggests that Evoenergy's technical efficiency is close to average for the sample of GDBs.

While caution needs to be taken in using the results of benchmarking analyses, the Economic Insights findings suggest that Evoenergy's opex performance is in line with its peers.

2.5.2.2 EFFICIENCY CARRYOVER INCENTIVE MECHANISM

Under incentive-based regulation, a business's actual costs are expected to provide the efficient level of operating costs because the business responds to the incentives in place to act efficiently.

During the current access arrangement period, we have been operating under an efficiency carryover incentive mechanism for operating costs as set out in the access arrangement. This mechanism provides us with a continuous and consistent incentive to efficiently lower costs. This incentive is achieved as we retain the efficiency gains (or losses) for the length of a carryover period regardless of the year of the regulatory period in which the gain (loss) occurs.

2.5.2.3 COMPARISON TO AER ALLOWANCE

In its final decision for the current access arrangement, the AER allowed an efficient level of opex of $35 million in 2019/20. In comparison, Evoenergy's proposed base year opex is $33 million, 4 per cent below the level the AER considered efficient in its current decision.

2.6 Trending base year opex

To forecast opex from the base year to each year of the regulatory period, Evoenergy has adopted an approach consistent with the AER's rate of change formula. This includes consideration of price changes, output growth and productivity growth. Evoenergy's proposed rates for each component are set out in Table 2.3 and discussed in turn below.

Table 2.3 Rate of change forecast

Rate of change	2021/22	2022/23	2023/24	2024/25	2025/26
Real price change	0.43%	0.42%	0.55%	0.58%	0.50%
Output growth	0.79%	0.55%	0.52%	0.50%	0.50%
Productivity growth	0.50%	0.50%	0.50%	0.50%	0.50%

2.6.1 Forecast price growth

Evoenergy's costs are affected by changes in input prices. Evoenergy has considered both labour and non-labour price growth in its access arrangement proposal. For labour price changes, Evoenergy has adopted an approach consistent with the AER's final decision for Evoenergy's electricity network, adopting the average growth in the wage price index for the ACT utilities industry forecast by Deloitte Access Economics (DAE,

the AER's consultants) and BIS Oxford Economics (BISOE, Evoenergy's consultants). BISOE's report is provided as Appendix 2.3. For non-labour prices, Evoenergy proposes a real growth rate of zero.[4] Evoenergy adopts the weights of 59.7 per cent for labour and 40.3 per cent for non-labour as estimated by Economic Insights.[5] Evoenergy's price growth forecast is presented in Table 2.4.

Table 2.4 Price growth forecast

	2021/22	2022/23	2023/24	2024/25	2025/26
Labour price growth (DAE)	0.40%	0.40%	0.50%	0.50%	0.50%
Labour price growth (BISOE)	1.03%	1.00%	1.33%	1.45%	1.19%
Labour price growth (average DAE & BISOE)	0.72%	0.70%	0.92%	0.97%	0.85%
Non-labour price growth	0.00%	0.00%	0.00%	0.00%	0.00%
Weighted total price growth	**0.43%**	**0.42%**	**0.55%**	**0.58%**	**0.50%**

Evoenergy notes that this approach is consistent with the AER's final decision for JGN where it concluded that an average of forecasts from DAE and BISOE reflects the best estimate of labour price growth[6].

2.6.2 Forecast output growth

To forecast output growth, Evoenergy has adopted the AER's standard approach of using growth rates for customer numbers[7] and mains length, weighted based on Economic Insights econometric analysis. The growth rates for customer numbers, mains length and total output growth are presented in Table 2.5.

Table 2.5 Forecast output growth rates

	2021/22	2022/23	2023/24	2024/25	2025/26
Customer numbers	1.58%	0.85%	0.76%	0.68%	0.64%
Mains length	0.41%	0.41%	0.41%	0.42%	0.43%
Output growth	0.79%	0.55%	0.52%	0.50%	0.50%

4 As noted in section 2.3.2, Evoenergy expects its insurance costs to increase significantly above inflation over the 2021-26 access arrangement period. While we have not proposed additional costs for insurance at this time, there may be a case for escalating insurance costs using a different approach in the future.

5 Economic Insights 2017, Economic Benchmarking Results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report.

6 AER 2020, Overview | Final decision – Jemena Gas Networks (NSW) Ltd Access Arrangement 2020-25, June, p. 42.

7 As discussed in attachment 9, Evoenergy's customer number forecast reflects the expected disconnection of around 7,000 customers who are not consuming gas. This would be at the request of retailers following a change in the policy for charging arrangements of these customers from October 2019. In forecasting opex for output growth and UNFT, we have included these connections in our customer numbers as the assets will continue to be maintained until such time as a complete connection abolishment is undertaken.

2.6.3 Forecast productivity growth

To determine a forecast opex productivity growth rate, Evoenergy has adopted the same approach as used by the AER for electricity distribution businesses. In its final decision on forecasting productivity growth for electricity distributors[8], the AER did not consider it appropriate to rely on a single information source to forecast opex productivity growth. Rather it found that relying on sensible judgement and various available information sources was reasonable. The AER specifically noted that the use of multiple information sources, rather than a reliance on a single model, is consistent with previous findings from the Australian Competition Tribunal about forecasting efficient opex. The AER's final decision states:[9]

> *On multiple occasions, the Tribunal was of the view that the AER was incorrect to rely on the results of a single information source as the primary basis for its decision, rather than considering a broader range of modelling, or using a combination of methods. Our decision on forecasting opex productivity growth is consistent with these views.*

The AER's final decision for electricity opex productivity was a growth rate of 0.5 per cent per annum. This gives weight to estimates and forecasts from gas distribution and labour productivity growth estimates in a number of relevant sectors of the economy.[10]

- The AER found that opex productivity estimates from gas distribution econometric models ranged from 0.43 per cent to 0.7 per cent, measured over the time period 1999 to 2015[11].
- For labour productivity growth, the AER relied upon a range of sources that include labour productivity in the utilities sector (which includes both electricity and gas distribution), as well as other industries that perform similar functions to electricity distribution. The AER notes that the benefit of looking at sectors other than utilities is that they are not biased by the effects of step-changes and other events that are specific to electricity distribution[12]. The AER found that the productivity results from both the utilities sector and selected non-utilities sectors measures fall within the same range of 0.3 to 0.7, measured over the period 1999 to 2018[13].

The AER considered the selected non-utilities sectors measure is a reasonable measure of productivity as it is based on a relatively long data period and it represents sectors that undertake similar activities to electricity distribution, and there are likely competitive pressures in these sectors compared to electricity distribution[14]. In Evoenergy's view, the same arguments hold for gas distribution.

Evoenergy also considers it appropriate to give some weight to the estimates prepared by Economic Insights, as part of the benchmarking analysis commissioned to assess Evoenergy's opex productivity performance (see Appendix 2.2).

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8 AER 2019, Final decision paper, Forecasting productivity growth for electricity distributors, March.
9 Ibid, p.76
10 Ibid p.76
11 Ibid, p.78
12 Ibid, p.81
13 Ibid, p.78
14 Ibid, p.81

Economic Insights estimated Evoenergy's average frontier shift being between 0.54 and 1.35 per cent annually with an intermediate measurement of 0.95 per cent.[15] Economic Insights recommends that a productivity growth rate of 0.95 per cent should be observed as an upper limit and that a lower rate will more accurately represent the opex efficiency of Evoenergy. [16] This is because the estimation is likely to include catch-up effects, frontier shift and an outspread dispersion of coefficient approximations on the time variable.[17]

The Economic Insights analysis also showed that Evoenergy's estimated average annual opex partial productivity growth rate to be 0.4 and 0.6 per cent for the periods 2007 to 2014 and 2014 to 2019 respectively.[18]

Based on the information above, Evoenergy proposes that a productivity growth factor of 0.5 per cent is the best estimate possible in the circumstances and, given it is based on the same approach as used by the AER for electricity distribution, should be considered reasonable.

In proposing a productivity growth factor of 0.5, Evoenergy has also had regard to the significant increase in insurance costs that are forecast over the access arrangement period and not accounted for elsewhere in the opex forecasts. At the time of preparing this proposal, Evoenergy expects insurance premiums to more than double by 2025/26 relative to base year costs due to increased insurance claims following the 2019/20 bushfire season and the January 2020 hailstorm in the ACT. Evoenergy has not included an allowance for this increase in costs in this proposal, although may need to reconsider this position in the revised proposal.

2.7 Step changes

Evoenergy is proposing one step change in relation to pigging. Pigging is a maintenance activity performed on gas pipelines to ensure that the pipeline is free of defects that may impact on its integrity. Internal tools, also known as a 'pigs', are introduced into the pipelines to perform cleaning and various inspection functions as they travel along the pipe. Pigging is required on this class of pipeline at no more than ten-yearly intervals.

We are proposing to change the way we treat pigging costs so these costs are expensed (that is, included in our operating costs forecast) instead of treating them as a capital cost – which is how they are currently included. This is because this activity does not result in the extension of a pipeline asset's useful life but is undertaken to ensure the asset is maintained in good working condition for the full length of its useful life. We therefore consider treating this cost as an operating expense more accurately reflects the nature of these activities. This will be offset by a corresponding reduction to our capital investment program.

Additionally, this change will result in these costs no longer being added to our regulatory asset base. Given the current degree of uncertainty regarding the future of the gas

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15 Economic Insights 2020, Relative Efficiency and Forecast Productivity Growth of Evoenergy, 6 January, p. 8
16 Economic Insights 2020, p. 8
17 Economic Insights 2020, p. 8, 72
18 Economic Insights 2020, pp. 50, 62

network, we believe it is in the best interest of customers to limit the amount of capital investment added to the asset base.

We expect to spend $2.5 million on pigging activities over the period. Further details on the pigging activities we have planned over the period can be found in Appendix 2.6.

2.8 Category specific forecasts

2.8.1 Utilities Network Facilities Tax

The ACT Government levies a tax on all utility providers that have network facilities on ACT land. The UNFT is governed by the *Utilities (Network Facilities Tax) Act 2006*, with the tax rate set by the responsible Minister. The total UNFT for any year is calculated by multiplying the determined tax rate by the total network route length. Over the 2021-26 access arrangement period, the UNFT is estimated to be $45.3 million, accounting for the majority of Evoenergy's category specific costs (78 per cent) and 26 per cent of total opex.

In response to COVID-19, the ACT Government stated that it will freeze the UNFT at the current level to enable utility providers to pass on savings to customers and support improved hardship measures for ACT customers[19]. Evoenergy has reflected this rate freeze in its opex forecast but assumes the ACT Government will increase the rate again from 2020/21, including recovery of the amount not recovered during 2019/20.

As discussed in Attachment 10, Evoenergy proposes that the tariff variation mechanism allows for the difference between forecast and actual UNFT amounts to be passed through in reference tariffs.

2.8.2 Energy Industry Levy

Evoenergy is required to pay an Energy Industry Levy (EIL), which covers national and local regulatory costs, including a contribution to support the Australian Energy Market Commission. Consistent with the treatment of the UNFT, Evoenergy's tariff variation mechanism proposes to pass through the difference between the forecast and actual amounts for the EIL in reference tariffs. Over the 2021-26 access arrangement period, EIL costs are estimated to be $3.2 million, accounting for 6 per cent of category specific costs and 2 per cent of total opex.

2.8.3 Unaccounted for Gas

Unaccounted for gas (UAG) is defined as the difference between the amount of gas measured entering the network at custody transfer stations and the amount of gas measured leaving the network. The difference is considered to be "unaccounted for". Evoenergy is required to replace UAG under the terms of its access arrangement. A level of UAG is a characteristic of all gas networks and is the result of gas measurement and calculation errors and to a lesser extent, physical losses.

[19] https://www.covid19.act.gov.au/business-hub/economic-survival-package/families-and-households#Utilities-Network-Facilities-Tax

Jemena manages UAG as part of the services provided to Evoenergy under the Distribution Asset Management Services (DAMS) Agreement. The efficient forecast of UAG costs is calculated as the product of three parameters:

- Total gas usage - we have relied on the demand forecast prepared by the Centre of International Economics as detailed in Attachment 7;
- Cost of replacement gas – based on a cost estimate of replacement gas for the forecast period;
- A proposed target efficient rate of UAG - based on analysis of historical UAG rates, Jemena proposes a UAG rate of 2.49 per cent (see Appendix 2.4).

The resulting costs associated with UAG are forecast to be $8.8 million over the 2021-26 access arrangement period, accounting for 15 per cent of category specific costs and 5 per cent of total opex.

Evoenergy proposes to true up the calculation of UAG based on actual demand and the actual cost of gas, with the difference to be passed through in reference tariffs (see Attachment 10).

2.8.4 Information Technology Asset Utilisation Fee

Under the DAMS Agreement, Jemena provides the functions for managing the nomination and gas balancing functions for the Canberra network on behalf of Evoenergy. Jemena is planning to move away from the system that currently provides these functions (CABS). To continue providing these services in an efficient manner to Evoenergy, Jemena has considered three options and recommends a custom system with the same capabilities as the current CABS functionality offers.

Evoenergy has proposed this cost as a category specific cost to be consistent with the treatment of similar costs in AER's final decision for the current access arrangement period.

The total cost of the proposed option is $1.35 million, of which $0.6 million falls in the 2021-26 access arrangement period, accounting for 1 per cent of category specific costs and 0.3 per cent of total opex. The derivation of the ITAUF is discussed below and Jemena's business case is provided as Appendix 2.5.

2.8.4.1 DERIVATION OF ITAUF

The ITAUF will be used to recover IT asset capital value for the migration of the nomination and operational balancing gas system to a new platform.

The proposed ITAUF formula is:

ITAUF = $\boldsymbol{TC\ RL}+(\boldsymbol{DB}*\boldsymbol{ICC})$

Where:

TC = Total cost of IT systems. Across the two years of the project this is $1.25Million
RL = Regulatory life of asset (5 years for IT assets)
DB = Declining balance of the asset value
ICC = Internal cost of capital 2.6%

Table 2.6 shows the annual ITAUF for Evoenergy for each year of the 2021-26 access arrangement period.

Table 2.6 Calculation of ITAUF

$ 2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Declining Balance				1,250,000	1,000,000
Amortisation over 5 years				250,000	250,000
Calculated Interest				32,500	26,000
Total ITAUF				**282,500**	**276,000**
Per month				**23,542**	**23,000**

As the ITAUF commences in 2024/25, it will continue as a specific forecast into the next access arrangement period and finish in 2028/29.

2.9 Debt raising costs

Debt raising costs are discussed in Attachment 5 and account for 0.5 per cent of total opex.

2.10 Opex forecast 2021-26

Based on the methodology discussed above, Evoenergy's proposed opex forecast for the 2021-26 access arrangement period is $175.1 million ($176.1 million including debt raising costs).

Table 2.7 provides the annual breakdown of this forecast by each of the base-step-trend elements and the category specific cost categories.

As presented in Figure 2.3, the key drivers of the difference between the AER's allowance for the current access arrangement period and Evoenergy's forecast for the 2021-26 period are:

- lower base year opex and a lower rate of change proposed for the 2021-26 period than the AER allowed in the current period;
- a higher step change proposed for the 2021-26 period than the AER allowed in the current period. This is largely due to the capitalisation of overheads in the current period that resulted in an overall negative step change compared with the positive step change proposed for the current period for expensing pigging costs; and
- higher category specific costs, driven primarily by a forecast increase in the UNFT, offset to some extent by a reduction in the ITAUF.

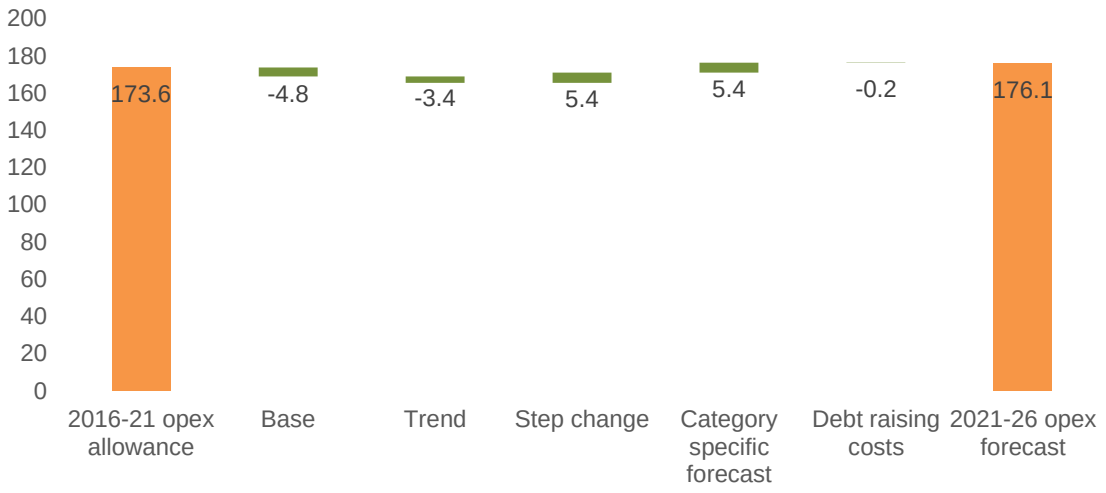
Table 2.7 Base-step-trend opex forecast, 2021-26

$ million 2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Base year	22.6	22.6	22.6	22.6	22.6	113.0
Rate of change						
Real price growth	0.2	0.3	0.4	0.5	0.7	2.1
Output growth	0.1	0.2	0.3	0.4	0.6	1.6
Productivity growth	-0.1	-0.2	-0.3	-0.5	-0.6	-1.7
Step change	0.45	0.94	0.00	0.05	0.82	2.3
Category specific costs						
UNFT	8.5	8.8	9.1	9.3	9.6	45.3
EIL	0.7	0.7	0.6	0.6	0.6	3.2
UAG	1.9	1.7	1.7	1.7	1.7	8.8
ITAUF	0.0	0.0	0.0	0.3	0.3	0.6
Debt raising costs	0.2	0.2	0.2	0.2	0.2	1.0
Total opex	**34.6**	**35.2**	**34.6**	**35.3**	**36.4**	**176.1**

*May not sum due to rounding.

Figure 2.3 Comparison of 2016-21 opex allowance and 2021-26 opex forecast

$million 2020/21



2.11 Opex metrics

In response to Evoenergy's Draft Plan, the CCP24 recommended that Evoenergy provide additional high-level data to assist stakeholders in analysing the regulatory building blocks. For operating costs, CCP24 recommended the inclusion of:

- the allowance for the current regulatory period;
- actual and predicted spending for the current regulatory period;

- the amount proposed for the next regulatory period; and
- opex per customer.

These figures are all presented in graphical and tabular form below.

Figure 2.4 Allowed, actual and forecast opex

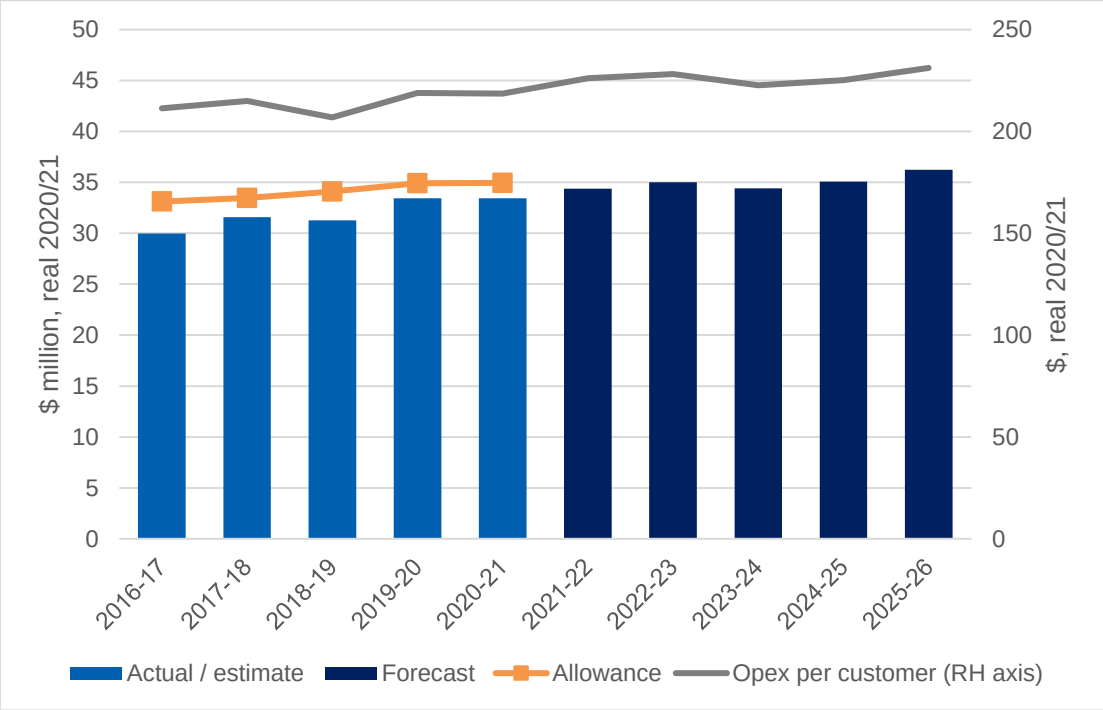


Table 2.8 Opex metrics for current (2016-21) regulatory period

$ real 2020/21	2016/17	2017/18	2018/19	2019/20	2020/21
AER opex allowance (million)	33.1	33.5	34.1	34.9	35.0
AER opex allowance per customer	233.5	227.8	225.5	228.7	228.5
Actual / predicted opex (million)	30.0	31.6	31.3	33.4	33.4
Opex per customer actual / predicted	211.4	214.9	206.9	218.9	218.7

Table 2.9 Opex metrics for next (2021-26) regulatory period

$ real 2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Proposed opex (million)	34.4	35.0	34.4	35.1	36.2
Propose opex per customer	226.1	228.2	222.6	225.2	231.2

Shortened forms

Term	Meaning
AA	Access Arrangement
ACT	Australian Capital Territory
ACT climate change strategy	ACT Government's Climate Change Strategy 2019-25
ACTCOSS	ACT Council of Social Service
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ANU	Australian National University
ARENA	Australian Renewable Energy Agency
BISOE	BIS Oxford Economics
CABS	A Jemena Ltd proprietary system providing retailer billing, demand customer management, network balancing and retailer nomination services.
CALD	culturally and linguistically diverse (community)
capex	capital expenditure
CCP, CCP24	the AER's Consumer Challenge Panel (number 24)
CEG	Competition Economists Group
CEPA	Centre for Efficiency and Productivity Analysis (University of Queensland)
CESS	Capital Expenditure Sharing Scheme
CIE	Centre of International Economics
CIT	Canberra Institute of Technology
CPI	consumer price index
DAE	Deloitte Access Economics
DAMS	Distribution asset management services (agreement)
DC	Demand Capacity Tariff
DT	Demand Throughput Tariff
E2G	Electricity-to-gas
EEIS	Energy Efficiency Improvement Scheme
ECM	Efficiency Carryover Mechanism
ECRC	Energy Consumer Reference Council
EGWWS	electricity, gas, water and waste services (sector)
EI	Economic Insights
EIL	Energy Industry Levy
ETC	Estimated cost of corporate income tax
EPSDD	ACT Environment, Planning and Sustainable Development Directorate
GDBs	gas distribution businesses

Term	Meaning
GN21	Evoenergy gas network access arrangement 2021–26
GJ	gigajoule = 10^9 joules
GWh	gigawatt hour
I&C	Industrial and commercial
ITAUF	Information Technology Asset Utilisation Fee
km	kilometre
LPG	liquid petroleum gas
MDLs	Meter Data Loggers
NGL	National Gas Law
NGO	National Gas Objective
NSW	New South Wales
opex	operating expenditure
PFP	Partial Factor Productivity
PJ	petajoule = 10^{15} joules
PLS	Pressure Limiting Station
PPA	power purchase agreement
PTRM	post-tax revenue model
QPRC	Queanbeyan–Palerang Regional Council (local government authority)
RAB	regulatory asset base
RFM	roll-forward model
RIN	Regulatory Information Notice
Rules	National Gas Rules
SDRS	Secondary District Regulator Sets
TAB	tax asset base
TJ	terajoule = 10^{12} joules
UAG	unaccounted for gas
UNFT	Utilities Network Facilities Tax
VB	Volume Boundary (tariff class)
VI	Volume Individual (tariff class)