evoenergy

13 February 2026

Dr Kris Funston
Executive General Manager
Network Regulation
Australian Energy Regulator

Dear Kris

Evoenergy welcomes the opportunity to provide this submission on the AER's draft decision and our revised proposal for the ACT and Queanbeyan-Palerang (ACT-QP) gas network access arrangement 2026–31. This submission provides additional support to the positions put forward in our initial and revised proposals[1] and responds to subsequent queries raised by AER Board members.[2]

Attached to this submission are additional analyses provided by The Centre for International Economics (CIE) (Attachment A) and HoustonKemp (Attachment B). The additional analyses further evidence our position that the annual real network price[3] increases put forward in our revised proposal (8.6 per cent) would not result in a materially greater reduction in demand for gas compared to the price limit applied in the AER's draft decision (4.0 per cent).[4] The additional analyses are summarised below.

Importantly, much greater reductions in gas demand are required over the 2026 to 2045 period to meet the ACT Government policy to phase out gas, as set out in the published Integrated Energy Plan, to achieve net zero emissions by the 2045 legislated date.[5]

The CIE analysis demonstrates Evoenergy's proposed price path would have no material impact on forecast gas demand

The CIE was engaged by Evoenergy to undertake extensive customer research and choice modelling on the preferences of ACT-QP households[6,7] to understand the impact of gas price increases on their decisions about gas appliance replacement and disconnection. This research was a critical input into Evoenergy's proposed demand forecast, which included a feedback loop between price and demand.[8]

The analysis prepared by the CIE found that setting gas network prices at the levels in Evoenergy's revised proposal (8.6 per cent) rather than the AER's draft decision (4.0 per cent[9]) has *very little impact* on forecast disconnections, resulting in an incremental difference of 110 disconnections by 2031, or 160 disconnections by 2041.

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[1] Evoenergy (2025). ACT and Queanbeyan-Palerang gas network access arrangement 2026–31, June; Evoenergy (2026). ACT and Queanbeyan-Palerang gas network revised access arrangement 2026–31, January.

[2] During a meeting between Evoenergy and the AER Board on Thursday 29 January 2026, AER Board members requested Evoenergy provide supplementary information on the impact of prices on demand over time.

[3] Evoenergy's network prices comprise approximately 30 per cent of the average retail gas bill.

[4] The AER's draft decision applied a 4.0 per cent real annual network price limit (or 4.5 per cent including incentive schemes) used to calculate the $35 million accelerated depreciation it allowed.

[5] ACT Government (2024). The Integrated Energy Plan 2024–2030: Our pathway to electrification, June; *Climate Change and Greenhouse Gas Reduction Act 2010*, s. 6(1).

[6] Residential customers comprise over 98 per cent of Evoenergy's gas customers.

[7] The CIE also undertook surveys of Evoenergy's large customers, for results see Evoenergy (2025). ACT and Queanbeyan-Palerang gas network access arrangement 2026–31, Appendix 2.2.

[8] Evoenergy (2025). ACT and Queanbeyan-Palerang gas network access arrangement 2026–31, Appendix 2.1; Appendix 2.2; Appendix 2.3.

[9] 4.5 per cent including incentive scheme carryovers.

Evoenergy notes this very small incremental difference in forecast disconnections is in the context of our revised proposal forecast of around 7,400 net disconnections on average per annum during the 2026-31 period and around 152,000 total disconnections being required to achieve the phase out of gas by 2045.

The CIE further found that even though the rate of price increase will be largest around 2041,[10] the only residential customers remaining on the network at that point are the approximately 10 per cent of customers who indicated in the survey they would choose gas in any price scenario. The CIE's survey tested price levels that were around 2-4 times higher than the current retail level.

The CIE's research found that customer decisions to disconnect from the gas network are relatively insensitive to gas price increases. Customer research indicated that when appliances fail:

- 59 per cent of households intend to switch to electric appliances, regardless of gas prices and government rebates,
- 28 per cent will make the decision to switch based on price, and
- 13 per cent would stick with gas, regardless of price.

The CIE also found that, where customers could be induced to switch before their appliances break, this would only bring forward electrification by a few years for these customers because of the ageing stock of ACT-QP gas appliances.

The CIE found other reasons for the relative inelasticity of gas demand include:

- network prices form less than one third of retail gas prices and the wholesale price component is forecast to decrease, diluting the network price increase, and
- costs are not the only thing our customers care about, with many customers evidencing a strong preference for one fuel over the other, regardless of price.

The CIE's findings are provided in Attachment A.

HoustonKemp analysis demonstrates Evoenergy's proposed price path would have no material effect on gas demand

HoustonKemp's literature review on the price elasticity of demand for gas found that gas demand is relatively inelastic in both the short and long term. HoustonKemp further concluded that no material effect on demand would be expected to arise from the price implications of Evoenergy's revised proposal, or the AER's draft decision, under various elasticity assumptions.

HoustonKemp found that the total decrease in demand for gas attributable to price increases over the period from 2026 to 2045, based on a range of elasticity assumptions, is between:

- 3.00–13.39 per cent based on Evoenergy's revised proposal price path for the 2026–31 period (8.6 per cent), followed by prices that allow Evoenergy the opportunity to recover its efficient costs by 2045 as required under the regulatory framework,[11]
- 1.46–6.67 per cent based on the AER's price path of 4.5 per cent for the 2026–31 period, followed by 4.0 per cent per annum over the remaining period to 2045 (i.e. a scenario which would not provide Evoenergy a reasonable opportunity to recover efficient costs and is inconsistent with the regulatory framework), and
- 4.45–19.35 per cent based on the AER's price path of 4.5 per cent for the 2026–31 period, followed by 11.7 per cent per annum over the remaining period to 2045, which is the price

[10] A tripling of the retail price by 2041 reaches a similar level to the maximum costs shown in the CIE's choice modelling survey.

[11] Including the National Gas Objective, National Gas Law and National Gas Rules.

path required to allow Evoenergy a theoretical opportunity to recover its efficient costs by 2045.[12]

The analysis shows that the impact of prices on demand is not material under any of the price path scenarios, especially in comparison to the 100 per cent reduction in demand between 2026 and 2045 required to phase out the gas network by 2045.

The analysis also shows that the AER's draft decision for the 2026–31 period would lead to a greater demand reduction over the 2026 to 2045 period than Evoenergy's revised proposal due to the higher prices required in subsequent periods to provide Evoenergy with a theoretical opportunity to recover its efficient costs.

In its report, HoustonKemp observed that it runs contrary to Evoenergy's commercial interests to accelerate disconnections beyond the level required to ensure a smooth transition from gas to electricity by 2045. Should an increase in price lead to declines in demand (in contrast to evidence from the literature and CIE's research), Evoenergy has both the ability and incentive to arrest any declining demand by reducing prices below the maximum levels approved by the AER. HoustonKemp also concludes that, under the hybrid tariff variation mechanism described in the AER's draft decision, Evoenergy will face an incentive to minimise the reduction in demand in each year of the access arrangement.

Further, HoustonKemp observed that the amount of accelerated depreciation allowed for in the 2026–31 period does not bind the AER's future decisions, and the 2026–31 decision does not 'lock in' a price path or depreciation allowance for future regulatory periods. HoustonKemp's findings are set out at Attachment B.

Update on recent gas demand

Separate to the price sensitivity analysis, we provide an update on Evoenergy's recent gas demand. Additional analysis of Evoenergy's recent gas demand shows that in 2024–25 and 2025–26, gas volumes on the gas network fell by around 7 per cent per year (weather normalised), compared to our revised proposal forecast which reflects an average decline of around 5 per cent per year over the access arrangement period. This further demonstrates the conservatism in Evoenergy's revised demand forecast and the additional risk to Evoenergy associated with a price-cap style 'hybrid' tariff variation mechanism with a wide revenue constraint (e.g. over 2 per cent).

Evoenergy acknowledges the AER's letter of 10 February 2026 which provided the internal staff analysis on the potential long-term impact of accelerated depreciation on prices and the demand used to inform the AER's 'broader understanding of…declining demand on long-term prices.' Evoenergy intends to make a submission on this material by 27 February 2026.

If you would like to discuss any matters raised in this submission, please contact me.

Yours sincerely

[redacted]

Megan Willcox
General Manager, Economic Regulation

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[12] Attachment 2 of Evoenergy's revised proposal sets out why this price path scenario would not provide Evoenergy a reasonable opportunity to recover its efficient costs and would not meet the requirements of the regulatory framework.

INDEPENDENT
QUANTITATIVE
EVIDENCE-BASED

SUPPLEMENTARY REPORT

Gas prices and demand destruction

Evidence from stated preference research

Prepared for
Evoenergy

12 February 2026

Summary

The Australian Energy Regulator (AER) is reviewing Evoenergy's gas network tariffs for the 2026–31 Access Arrangement period (the GN26 period). One of the matters the AER is considering when setting a price path is the potential for demand destruction and costs being borne by a smaller number of customers in the future.

In 2024 and 2025, The CIE conducted rigorous stated preference research to understand the impact of gas price increases on consumer decisions about gas appliance replacement and disconnection. Households were asked about a wide range of gas appliance running costs up to 2-4 times higher than current costs.

That research and subsequent demand forecasting modelling indicate that **setting gas network prices at the levels in Evoenergy's revised proposal rather than the AER's draft decision will have very little impact on forecast disconnections** — around 110 additional disconnections or 0.1 per cent of existing residential connections by 2031, around 200 additional disconnections by 2036 and around 160 additional disconnections by 2041 (table 1).[1]

Some of the reasons for this result include:

- network prices form less than one third of retail gas prices and the wholesale price component is forecast to decrease
- for most households, the timing of electrification decisions is tied to appliance failure or home renovations and we estimate 39 per cent of residential customers will disconnect by 2031 for these reasons regardless of gas prices, and
- costs are not the only thing consumers care about, with many consumers evidencing a strong preference for one fuel over the other, regardless of price.

1 Summary of forecast disconnections by network price path

Scenario	Network price increase	Change in connections from 2025/26		
		2031	2036	2041
	% p.a.	per cent	per cent	per cent
Base	0% in 2026-45	-38.80	-70.21	-89.38
AER draft decision extended	4.5% in 2026-45	-38.88	-70.33	-89.47
AER draft decision, then recovery excl. decommissioning	4.5% in 2026-31, 11.7% in 2031-45	-38.88	-70.36	-89.58

1 Based on a comparison between the AER draft decision extended (4.5% p.a. in 2026-45) and Evoenergy revised proposal, then recovery excl. decommissioning (8.6% in 2026-31, 6.8% in 2031-45) scenarios.

Scenario	Network price increase	Change in connections from 2025/26		
		2031	2036	2041
	% p.a.	per cent	per cent	per cent
AER draft decision, then recovery incl. decommissioning	4.5% in 2026-31, 13.6% in 2031-45	-38.88	-70.35	-89.55
Evoenergy revised proposal, then recovery excl. decommissioning	8.6% in 2026-31, 6.8% in 2031-45	-38.96	-70.47	-89.58
Evoenergy revised proposal, then recovery incl. decommissioning	8.6% in 2026-31, 8.9% in 2031-45	-38.96	-70.48	-89.61
Annual price increase reaching maximum survey levels by 2041	15% in 2026-45	-39.08	-70.78	-90.06

Source: CIE analysis of demand forecasting (January 2026 version submitted to the AER)

1 Purpose of this report

The AER is considering the potential for demand destruction

The Australian Energy Regulator (AER) is reviewing Evoenergy's gas network tariffs for the 2026–31 Access Arrangement period (the GN26 period). One of the AER's key considerations when setting a price path in its draft decision was the potential for demand destruction, stating:

> large and repeated increases in future gas prices… would not align with the long-term interests of customers, as it risks the use of the network (including the number of customers) to decline faster than anticipated, which further increases the risk of asset stranding and of costs being borne by an even smaller number of customers in the future.[2]

The situation about which the AER is concerned is colloquially known as a utility 'death spiral'. A death spiral occurs when reduced demand in response to a price increase results in the fixed costs of managing network assets being spread over lower demand quantities, which results in higher regulated maximum prices (under the typical building block method), which results in further demand destruction, which increases maximum prices further still, and so on.

The CIE's consumer research is highly relevant evidence

In 2024 and 2025, The CIE conducted rigorous stated preference research to understand the impact of gas price increases on consumer decisions about gas appliance replacement and disconnection. The CIE used a statistical model of consumer choice estimated on the stated preference data to forecast demand for gas connections on Evoenergy's network between now and 2045. The demand forecast explicitly accounts for the dynamic relationship between price and demand for gas on Evoenergy's network.

This consumer research and subsequent statistical modelling represent highly relevant evidence for the AER when considering the implications of its pricing decisions on demand destruction and any potential utility death spiral.

The purpose of this short report is to assist the AER by summarising the relevant findings from the stated preference research and setting out the forecast impacts on demand of various price path scenarios.

2 Australian Energy Regulator 2025. Evoenergy (ACT) access arrangement 2026 to 2031. Draft decision. Attachment 1. p 14.

2 Stated preference research

Customers were asked about a large range of cost levels

As part of the stated preference research, some 1,885 households in Evoenergy's network area completed a choice modelling exercise. Each respondent answered eight different choice questions:

- four of the questions related to pre-emptive replacement (before gas appliances break) (e.g. figure 2.1), and
- four questions related to replacement when appliances reach end of life (e.g. figure 2.2).

Importantly, **the running cost of gas appliances was varied widely by design across the questions**. Respondents were told they were being asked about these scenarios because Evoenergy wants "to know how different increases in gas bills and rebates might affect how and when you replace your appliances." Survey questions about price were specifically tailored to the individual circumstances for each respondent.

The range of gas running costs presented to respondents varied depending on the size of the respondent's dwelling and the set of gas appliances being used by the respondent. The maximum cost was 2-4 times larger than the minimum cost shown to each respondent.[3] For example, the costs shown to a respondent with a 3-4 bedroom house running an existing gas heater, hot water and cooktop ranged from $2 550 and $9 550 per year.[4]

These cost ranges were developed using preliminary assumptions about prices and appliance usage, which have been refined when developing the demand forecasting model. Based on the refined assumptions, the maximum gas running cost levels used in the survey represent an increase in gas retail prices of 282 per cent on average across respondents (the precise increase depends on appliance mix and dwelling size). This translates to an increase in gas *network* prices of 1,024 per cent on average. This means there is plenty of headroom for testing large price increase scenarios in the statistical model without needing to extrapolate beyond the levels shown to respondents.

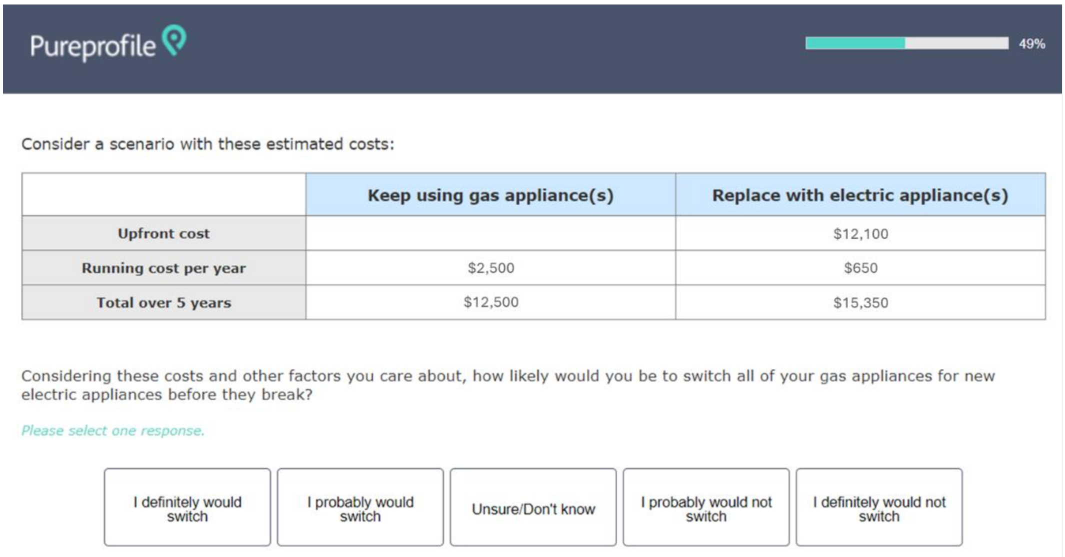
The detailed methodology and results from the study can be found in our full report.[5]

3 The maximum levels for gas running costs were increased between the pilot and main surveys due to the relatively small demand response to the maximum running costs used in the pilot.

4 CIE 2025. Price elasticity of demand for natural gas. Stated preference research. Final report for Evoenergy. pp 14-15.

5 CIE 2025. Price elasticity of demand for natural gas. Stated preference research. Final report for Evoenergy.

2.1 Example of choice question, pre-emptive disconnection (before gas appliance failure)



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Consider a scenario with these estimated costs:

	Keep using gas appliance(s)	Replace with electric appliance(s)
Upfront cost		$12,100
Running cost per year	$2,500	$650
Total over 5 years	$12,500	$15,350

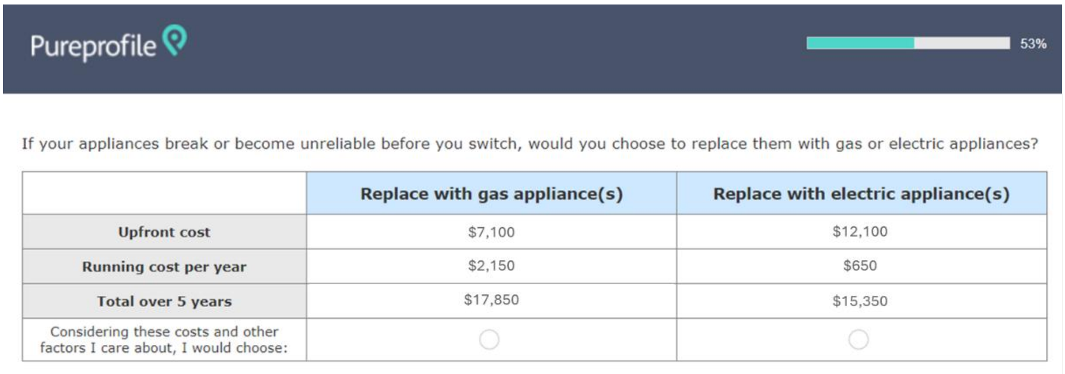
Considering these costs and other factors you care about, how likely would you be to switch all of your gas appliances for new electric appliances before they break?

Please select one response.

I definitely would switch | I probably would switch | Unsure/Don't know | I probably would not switch | I definitely would not switch

Data source: CIE, Pureprofile.

2.2 Example of choice question, end-of-life disconnection (after gas appliance failure)



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If your appliances break or become unreliable before you switch, would you choose to replace them with gas or electric appliances?

	Replace with gas appliance(s)	Replace with electric appliance(s)
Upfront cost	$7,100	$12,100
Running cost per year	$2,150	$650
Total over 5 years	$17,850	$15,350
Considering these costs and other factors I care about, I would choose:	○	○

Data source: CIE, Pureprofile.

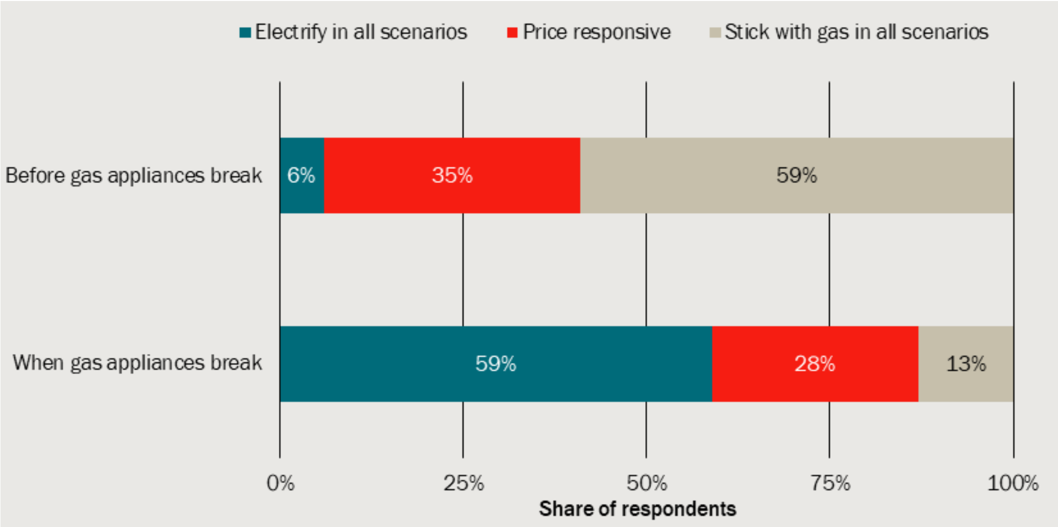
Customer decisions were relatively insensitive to gas price

The survey responses indicated that:

- for most households, the timing of decisions is tied to appliance failure or home renovations. When appliances fail, more than half of households intend to switch to electric appliances, regardless of what's happening with gas prices and government rebates.
- gas price increases could affect electrification decisions for some consumers (figure 2.3):
  - around 35 per cent of households could be induced to electrify before gas appliances break (assuming the large increases in gas running costs discussed

  above as well as reduced upfront costs for electric appliances), in addition to the 6 per cent of customers intending to electrify in any case
  - around 28 per cent of households could be induced to electrify when gas appliances break, in addition to the 59 per cent of households intending to electrify at this point in any case
- costs are not the only thing consumers care about, with many consumers evidencing a strong preference for one fuel over the other, regardless of price
- since most households will electrify when gas appliances break, ‘pre-emptive’ electrification that is induced by higher gas prices is, in most cases, merely *bringing forward* electrification
- since the average age of gas appliances in the ACT is in the order of 10 years and the average life is around 16 years, ‘pre emptive’ electrification (i.e. before gas appliances break) induced by higher gas prices will, in many cases, bring forward electrification by only a few years.

2.3 Overview of residential consumer preferences



Data source: CIE analysis

3 Predicted impacts of various price paths

The stated preferences can be used to predict consumer choices and the impacts of price on demand

The CIE developed a forecasting model which estimates the likelihood of gas appliance failures in each year over the next 20 years and uses robust statistical models from the stated preference research to predict consumer electrification decisions given a specified gas price path.

Model predictions for a range of gas price path scenarios are summarised in table 3.1. The scenarios are defined in terms of network price increases. Network prices form only a share (approximately 28 per cent) of the retail price. Wholesale prices are forecast to decline.[6] The retail prices associated with each network price scenario, to which consumers are assumed to respond, are also presented in the table.

The (declining) demand for gas network connections is relatively insensitive to changes in network gas prices

Smooth annual network price increases have little effect on forecast disconnections because, by the time retail price increases rise to material levels, most of the households with a propensity to electrify have already done so at the point of their appliances reaching end of life.

Even though a 15 per cent annual increase in network prices would result in the retail price tripling by 2041 — a level similar to the maximum costs shown in the survey — the only customers remaining on the network at that point are the roughly 10 per cent of customers who indicated in the survey they would choose gas in any price scenario.

3.1 Summary of forecast disconnections by price path

Scenario	Network price increase	Retail price			Connections		
		2031	2036	2041	2031	2036	2041
	% p.a.	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level
Base	0% in 2026-45	0.91	0.92	0.93	0.612	0.298	0.106

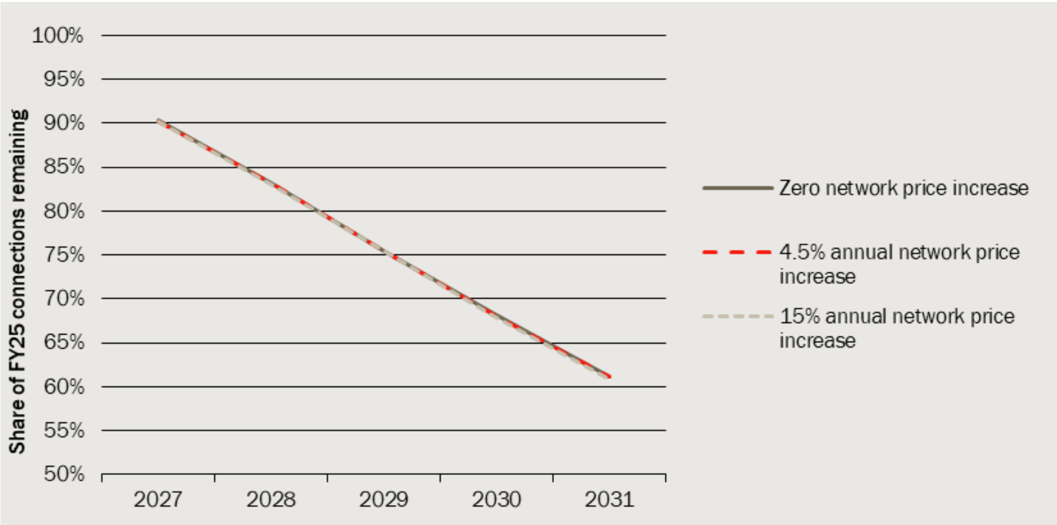
6 ACIL Allen 2025. Gas, liquid fuel, coal and renewable gas projections. Final report. 25 February. pp 6-8.

Scenario	Network price increase	Retail price 2031	Retail price 2036	Retail price 2041	Connections 2031	Connections 2036	Connections 2041
	% p.a.	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level	Share of FY26 level
AER draft decision extended	4.5% in 2026-45	0.98	1.08	1.19	0.611	0.297	0.105
AER draft decision, then recovery excl. decommissioning	4.5% in 2026-31, 11.7% in 2031-45	0.98	1.25	1.71	0.611	0.296	0.105
AER draft decision, then recovery incl. decommissioning	4.5% in 2026-31, 13.6% in 2031-45	0.98	1.30	1.90	0.611	0.296	0.104
Evoenergy revised proposal, then recovery excl. decommissioning	8.6% in 2026-31, 6.8% in 2031-45	1.05	1.23	1.47	0.610	0.295	0.104
Evoenergy revised proposal, then recovery incl. decommissioning	8.6% in 2026-31, 8.9% in 2031-45	1.05	1.29	1.65	0.610	0.295	0.104
Annual price increase reaching maximum survey levels by 2041	15% in 2026-45	1.19	1.78	2.94	0.609	0.292	0.099

Source: CIE analysis of demand forecasting (January 2026 version submitted to the AER)

The impact of these price scenarios on the connections forecast is almost imperceptible in figure 3.2.

3.2 Residential connections forecast by gas network price scenario



Data source: CIE

This result is robust to different assumptions about consumer expectations about price and assumptions about how consumer preferences will change over time.[7] Sensitivity analysis can be provided on request.

In conclusion, our research indicates that **setting gas network prices at the levels in Evoenergy's revised proposal rather than the AER's draft decision will have very little impact on forecast disconnections** — 112 additional disconnections or 0.1 per cent of existing residential connections by 2031, 203 additional disconnections by 2026 and 160 additional disconnections by 2041.[8] Under all price scenarios considered in this report, our forecast decreases in residential gas demand are smaller than the 46 per cent reduction implied by the ACT emissions reduction interim target for 2030.[9]

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7 Our central case assumes (1) consumer decisions are based on running costs in the year in which the decision is being made, with no foresight of future changes in prices, and (2) consumer preferences remain constant over time with respect to real costs.

8 Based on a comparison between the AER draft decision extended (4.5% p.a. in 2026-45) and Evoenergy revised proposal, then recovery excl. decommissioning (8.6% in 2026-31, 6.8% in 2031-45) scenarios.

9 Evoenergy 2026. Revised access arrangement information ACT and Queanbeyan-Palerang gas network access arrangement 2026–31. Submission to the Australian Energy Regulator. Attachment 2: Demand. January. p 13.

THE CENTRE FOR INTERNATIONAL ECONOMICS
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Supplementary report on AER draft decision on depreciation

Expert report of Dale Yeats

13 February 2026

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Disclaimer

Contents

Figures

Tables

1. Introduction

I have been asked to prepare this report by Evoenergy. It is the second report that I have prepared on the Australian Energy Regulator's (AER's) draft decision on the access arrangement for Evoenergy's gas distribution network for the period from 1 July 2026 to 30 June 2031 (2026-31).

This report is intended to be read in conjunction with my first report on this subject, entitled 'Assessment of the AER's draft decision on depreciation' dated 12 January 2027 (my first report).[1]

Subsequent to the preparation of that report, Evoenergy has asked me:

- to extend to 2045 the analysis in my first report on the effect of changes in price on demand for gas, based on different network price and price elasticity assumptions; and
- to provide my opinion on the incentives for Evoenergy to manage the expected decline in demand for gas over the period to 2045, including within the upcoming access arrangement.

1.1 Relevant experience

I am a Partner at HoustonKemp Economists, a firm of expert economists. I have over 15 years' experience applying economics to a diverse range of problems across a range of industries.

I have extensive experience of the economics of infrastructure and, specifically, on estimation of the efficient cost of providing infrastructure services and the price of access to monopoly infrastructure. I have accrued this experience in the context of regulatory reviews, litigation proceedings and major commercial arbitrations and negotiations. I have also assisted in the preparation of material that formed the basis of expert evidence in a merits review of a regulatory decision on depreciation under the national gas rules.

My sectoral experience spans the electricity, gas, port, water, resources, airport, heavy vehicle, construction, taxi, education, air navigation, retirement village, steel, stevedoring, cemetery and telecommunications sectors. I have undertaken economic analysis that informed decision making in the context of regulatory reviews across a range of industries, native title proceedings, major commercial arbitrations and negotiations, class-actions, anti-dumping proceedings, pricing intercompany transactions and policy development.

I hold a Master of Economics with first class honours and a Bachelor of Commerce (first class honours) in Economics from the University of Auckland. I attach a copy of my curriculum vitae at Annexure A.

I have been assisted in the preparation of this report by my colleague, Elaine Luc, who holds a post-graduate degree in economics. Notwithstanding this assistance, the opinions in this report are my own and I take full responsibility for them.

1.2 Key findings

I concluded in my first report that the estimates of the price elasticity of demand that were used in the demand forecasts adopted by Evoenergy and the AER are consistent with the economics literature on the price elasticity of demand. These estimates of price elasticity were based:

- on recent research that is specific to the Australian Capital Territory (ACT), as commissioned by Evoenergy and undertaken by the Centre for International Economics (CIE);[2] and

[1] Yeats, D, '*Assessment of the AER's draft decision on depreciation*', 12 January 2026.

[2] Centre for International Economics, *Price elasticity of demand for natural gas – Stated preference research*, 23 June 2025, p 52.

- on the price elasticity of demand assumption adopted by the Australian Energy Market Operator (AEMO) in its gas demand forecasting methodology, as adopted by the AER's consultant in forecasting demand.[3]

I concluded from the analysis that I presented in my first report that, based on various assumptions as to the price elasticity of demand, that no material effect on demand would be expected to arise over the 2026-31 access arrangement as a consequence of the price implications of either the AER's draft decision or Evoenergy's initial or revised proposal.

The AER's decision on depreciation for the 2026-31 access arrangement does not preclude application of a different approach in subsequent access arrangements. In my opinion, it is the estimated effect on demand over the 2026-31 access arrangement that is most relevant to the AER's decision on depreciation.

The analysis that I present in section 2.2 of this report extends my analysis to 2045 and shows that, across different assumptions as to the price elasticity of demand, the average annual effect on demand arising from different price scenarios falls within a tight range. This reflects the empirical evidence that demand for natural gas is relatively unresponsive to changes in price.

My analysis therefore indicates that no material effect on demand would be expected to arise from the price implications of either the AER's draft decision or Evoenergy's revised proposal over the period to 2045, based on the price elasticity of demand assumptions that underpin their demand forecasts.

I highlight in section 3 that it is in Evoenergy's own commercial interests to minimise disconnections from its network and further declines in demand for gas beyond the level required to ensure an orderly transition to electrification by 2045.

I also explain that, should an increase in price lead to unexpected material further declines in demand for gas – in contrast to evidence from the economics literature, the CIE's research and the assumptions adopted by AEMO on the price elasticity of demand for gas – Evoenergy has the ability to arrest this further decline in demand by reducing prices below the maximum level approved by the AER.

It follows that, should an increase in price lead to unexpected material further declines in demand for gas, Evoenergy has both the ability and a strong incentive to respond by reducing prices below the maximum level approved by the AER.

1.3 Structure

The remainder of my report is structured as follows, ie:

- in section two I extend to 2045 the analysis in my first report on the effect of changes in price on demand for gas, while also providing further context to relevant elements of the economics literature that I reviewed in my first report; and
- in section three, I comment on the incentives for Evoenergy to manage the expected decline in demand for gas over the period to 2045.

[3] Frontier Economics, *Gas demand forecasts for Evoenergy – prepared for the Australian Energy Regulator*, 5 November 2025, pp 19 and 50.

2. Price elasticity of demand

In this section I summarise and provide further context to the economics literature on the price elasticity of demand that I reviewed in preparing my first report. I also extend to 2045 the analysis in my first report on the effect of changes in price on demand for gas in the 2026-31 access arrangement, based on different permutations of changes in network price and assumptions as to the price elasticity of demand for gas

2.1 Economics literature

In my first report I undertook a desktop review of the economics literature on the price elasticity of both demand for gas and gas connections, focusing on peer-reviewed papers.[4]

I observed from the economics literature:[5]

- a range of peer-reviewed studies on the price elasticity of demand for gas consumption, but no specific studies on connections to the gas network;
- a general lack of recent peer-reviewed studies, which is similarly recognised in the literature itself;
- a focus on countries other than Australia, ie, principally in the United States and other countries that are members of the Organisation for Economic Co-operation and Development;
- that empirical estimates of the price elasticity of demand for natural gas vary by country, the sector of the economy and customer characteristics; and
- even for customers with similar characteristics and in similar economic and geographic settings, estimates of price elasticity can still differ depending on the specification of the estimation model, the time period that is assessed and the source of data.

Nevertheless, a persistent theme across these studies is that the price elasticity of demand for gas consumption by residential customers is relatively inelastic in both the short and long run, with demand being slightly less inelastic in the long run.

When assessed by reference to retail price, the price elasticity of demand for gas consumption is relatively inelastic for residential customers and typically falls between -0.44 and -0.03, with the mid-point of this range being -0.235.[6]

I summarise the results from my review of the economics literature from my first report in Table 2.1. Each of these studies is summarised at Appendix A in my first report.

[4] First report, section 3.1.1 and appendix A.

[5] First report, section 3.1.1.

[6] The bounds for this range are -0.03 and -0.44. The range is not informed by the estimates from Andersen et al (2011) and Burke and Yang (2016) for reasons I set out in the note that accompanies Table 2.1.

Table 2.1: Summary of estimated price elasticity in the economics literature

Author(s)	Year	Country/region	Sector	Time period	Short-run price elasticity	Long-run price elasticity	Type of price	Price terms
Rubin and Auffhammer	2022	California	Residential	2010 to 2014	-0.15 to -0.19 (medium-run elasticity)		Retail	Unstated
Hahn and Metcalfe	2021	California	Residential	2012 to 2015	-0.29 to -0.35		Retail	Real
Burke and Yang	2016	44 countries	Industrial and residential	1978 to 2011	-0.13 to -0.37*	-0.82 to -1.09*	Industrial and residential end-user price	Real
Arora	2014	United States	Industrial, residential and inventories	1993 to 2013	-0.10 to -0.16	-0.24 to -0.29	Industrial and residential end-user price	Real (Monthly and quarterly)
Andersen et al.	2011	13 OECD countries	Industrial	1978 to 2003	-0.06 to -0.18*	-0.16 to -0.62*	Industrial end-user price	Real
Bernstein and Madlener	2011	12 OECD countries[7]	Residential	1980 to 2008	-0.23	-0.51	Retail	Real
Asche et al.	2008	12 European countries[8]	Residential	1978 to 2002	-0.03 to -0.15	-0.44 to -0.1	Retail	Real
Joutz et al.	2009	United States	Residential	1992 to 2006	-0.09 to -0.11	-0.18 to -0.2	Retail	Real
Bernstein and Griffin	2006	United States	Residential	1977 to 2004	-0.12	-0.36	Retail	Real
Berkhout et al.	2004	Netherlands	Residential	1992 to 1999	-0.19	Not estimated	Retail	Real
Maddala et al.	1997	United States	Residential	1970 to 1990	-0.09 to -0.12	-0.24 to -0.27	Retail	Real
Bohi and Zimmerman	1984	United States	Residential	1960s to 1970s	-0.2	-0.3	Depending on underlying study	N/A

** I include these estimates for transparency as to the sample of papers that I reviewed. I do not consider these estimates in establishing the plausible range of elasticity estimates applicable to Evoenergy's customers for the following reasons. The Andersen et al (2011) paper provides estimates for non-residential users only. The Burke and Yang (2016) paper do not apply an estimation methodology that account for heterogeneous demand responses, which is likely a material problem given the large sample of countries compared to other studies.*

2.1.1 Price terms

Each of the studies that derived empirical estimates of the price elasticity of demand evaluated changes in price in constant dollar (or real) terms, but for one study that did not explicitly state whether or not price was converted to constant dollar terms.[9]

One study, Burke and Yang (2016), indicated that it also derived results using prices that were not expressed in constant price terms and noted that the resulting estimate of price elasticity were not significantly different to its reported estimates, which are based on prices expressed in constant dollar terms.

The derivation of these reported price elasticities by reference to prices expressed in constant dollar terms means that it is preferable for any application of price elasticities from these studies to be applied to changes in price that are also expressed in constant dollar terms.

[7] The countries examined in this study include Austria, Finland, France, Germany, Ireland, Japan, Luxembourg, the Netherlands, Spain, Switzerland, the United Kingdom and the United States.

[8] The countries examined in this study include Austria, Belgium, Denmark, France, Germany, Ireland, Italy, the Netherlands, Spain, Sweden, Switzerland and the UK.

[9] I note for completeness that one further study, Arora (2014) evaluated daily and monthly changes in price in constant price terms, but evaluated weekly price changes in dollars of the day terms because real price changes were not available. See : Arora, Estimates of the price elasticities of natural gas supply and demand in the United States, MPRA Paper 54232, University Library of Munich, Germany, 2014, p.6.

2.1.2 Magnitude of price changes

The peer-reviewed studies from the economics literature that I identified generally do not discuss in detail the magnitude of the price changes that underpin their analysis, and do so only by exception. For example, Hahn and Metcalfe (2021) observed that their estimates were based on a discrete price change equal to 20 per cent, which arose as a result of a subsidy.[10]

As a matter of principle, at a given point on a linear demand curve the price elasticity of demand should not be affected by the magnitude of a price change.

In my opinion, there is limited insight to be drawn, as relevant to Evoenergy's circumstances, from the magnitude of the price changes that underpin the studies in the economics literature.[11]

2.2 Long term impact on demand of change in price

In my first report I estimated the effect of changes in price on demand for gas consumption in the 2026-31 access arrangement, based on different permutations of changes in network price and assumptions as to the price elasticity of demand for gas. I concluded from that analysis that no material effect on demand would be expected to arise from the price implications of either the AER's draft decision or Evoenergy's initial or revised proposal.

In this section I extend that analysis to cover the period to 30 June 2045, ie, a period of 19 years.

My extended analysis is based on three price scenarios that have been provided to me by Evoenergy, ie:

- **scenario (a)**: Evoenergy's revised proposal price path for the upcoming access arrangement (8.6 per cent), then 6.8 per cent, which I understand will permit it to recover its efficient costs by 2045;
- **scenario (b)**: 4.5 per cent per annum over 2026-31, as in the AER's draft decision, then 4 per cent per annum until 2045, which I understand will not permit Evoenergy to recover its efficient costs; and
- **scenario (c)**: 4.5 per cent per annum during 2026-31, as in the AER's draft decision, then 11.7 per cent per annum over the remaining period to 2045, which I understand will allow Evoenergy to recover its efficient costs.

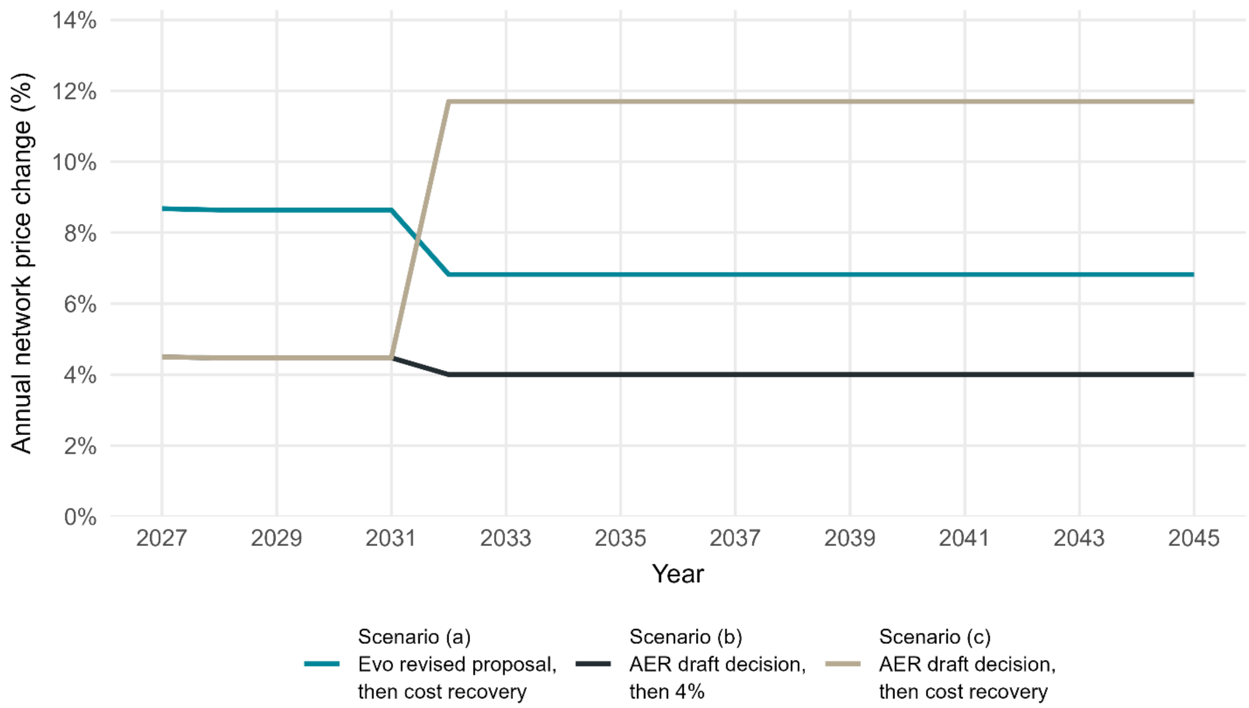
I understand from Evoenergy that each of these price paths is expressed in constant dollar terms and excludes costs related to decommissioning its network.

I illustrate these price paths in Figure 2.1.

[10] Hahn, R. W, and Metcalfe, R., D., *Efficiency and equity impacts of energy subsidies*, American Economic Review 111.5 (2021): 1658-1688, p 2.

[11] I note that price elasticity of demand varies at different points along a linear demand curve, such that the estimated price elasticities derived from the literature reflect the 'average elasticity' observed along a demand curve, which may also be changing over the underlying assessment period. See: Perloff, J., M. *Microeconomics*, Sixth Edition, Addison Wesley, p 47.

Figure 2.1: Alternative price scenarios (constant dollar terms)



2.2.1 Overview of methodology

I describe the methodology on which my analysis is based in detail in my first report.[12] For this extended analysis, I take the scenarios of long term network price path as exogeneous.

Consistent with that methodology, for each price scenario I estimate the change in gas consumption based on three different price elasticity values, ie:

- -0.05, consistent with the value underpinning the AER's draft decision on demand, and as adopted by AEMO;[13]
- -0.061, consistent with the most price elastic (conservative) of the headline price elasticity estimates from the customer research commissioned by Evoenergy and undertaken by CIE;[14] and
- -0.235, as a conservative reference point based on the mid-point of the range of price elasticity derived from my review of the economics literature.

For the purpose of my analysis I selected a conservative estimate of price elasticity demand from the CIE's recent research that is specific to the ACT. In particular, I selected the CIE's estimate of price elasticity for the long term response for connections (-0.061), rather than the relatively more inelastic estimate of the long term response for consumption (-0.045).[15]

[12] First report, section 3.1.3.

[13] Frontier Economics, *Gas demand forecasts for Evoenergy – prepared for the Australian Energy Regulator*, 5 November 2025, pp 19 and 50.

[14] Centre for International Economics, Price elasticity of demand for natural gas – Stated preference research, 23 June 2025, p 52. This estimate is based on the price elasticity of connections over the period to 2041. The estimates presented on page 53 of the CIE report indicate that the corresponding estimates of price elasticity of consumption (rather than connections) are more inelastic.

[15] Centre for International Economics, Price elasticity of demand for natural gas – Stated preference research, 23 June 2025, pp 52-53.

I observed in my first report that the price elasticity of demand that underpins both Evoenergy's and the AER's demand forecast are consistent with the economics literature, which similarly indicates the price elasticity of demand for gas is relatively inelastic.[16]

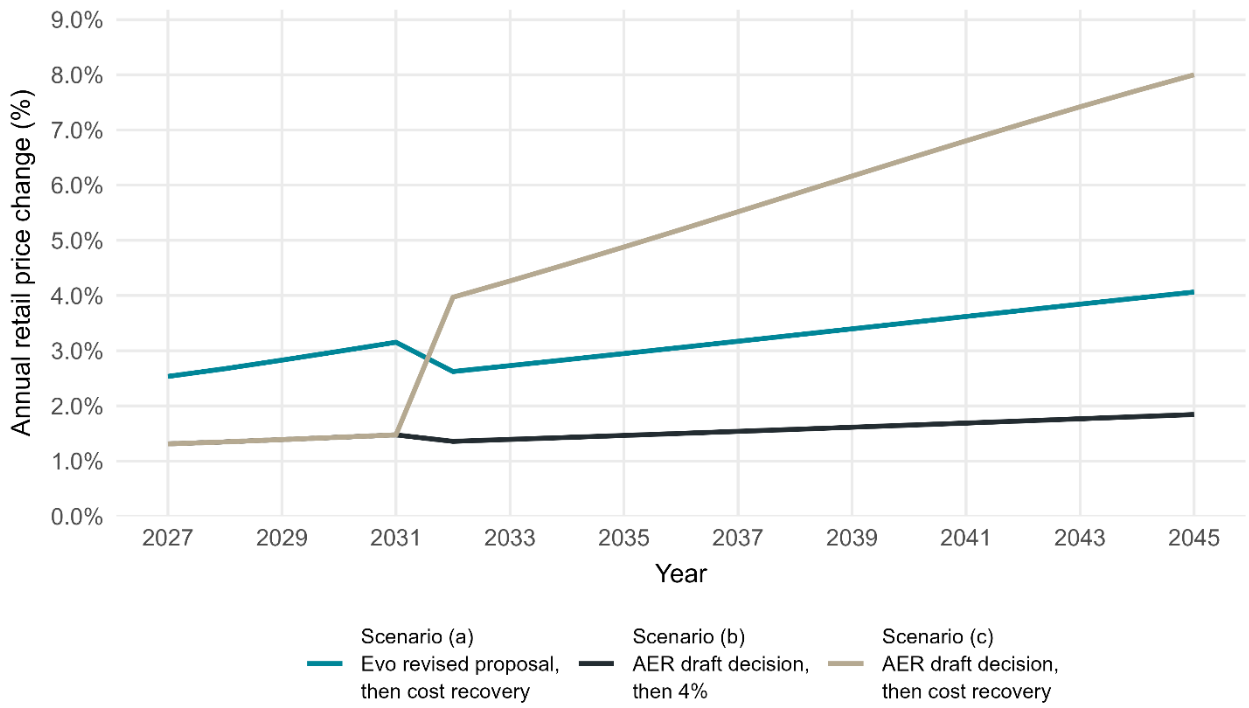
The price elasticity of demand estimate that I draw from the economics literature is a conservative reference point only. It is conservative because it is much more price elastic than the Australia and ACT-specific estimates that underpin the AER and Evoenergy's demand forecasts. In addition to not being specific to Australia or the ACT, the estimates from the economics literature are also based on data prior to 2015, and typically much earlier, and so are unlikely to reflect the circumstances that currently apply to the ACT.

Consistent with the derivation of price elasticity of demand estimates in the economics literature based on price changes that are measured in constant price terms, I apply these price elasticities to future price scenarios that are also expressed in constant price terms.

As explained in my first report, since the available estimates of price elasticity relate to retail prices, the first step in my analysis is to convert the network price paths to retail price paths. This requires assumptions to be made on the evolution of non-network prices up to 2045.

In my previous analysis, I assumed that the network price comprises 29 per cent of the retail price at the start of the 2026-31 access arrangement, and that thereafter non-network prices remain unchanged in constant dollar terms.[17] I illustrate the resulting time profile of retail prices in Figure 2.2.

Figure 2.2: Annual percentage change in retail price based on network price scenarios



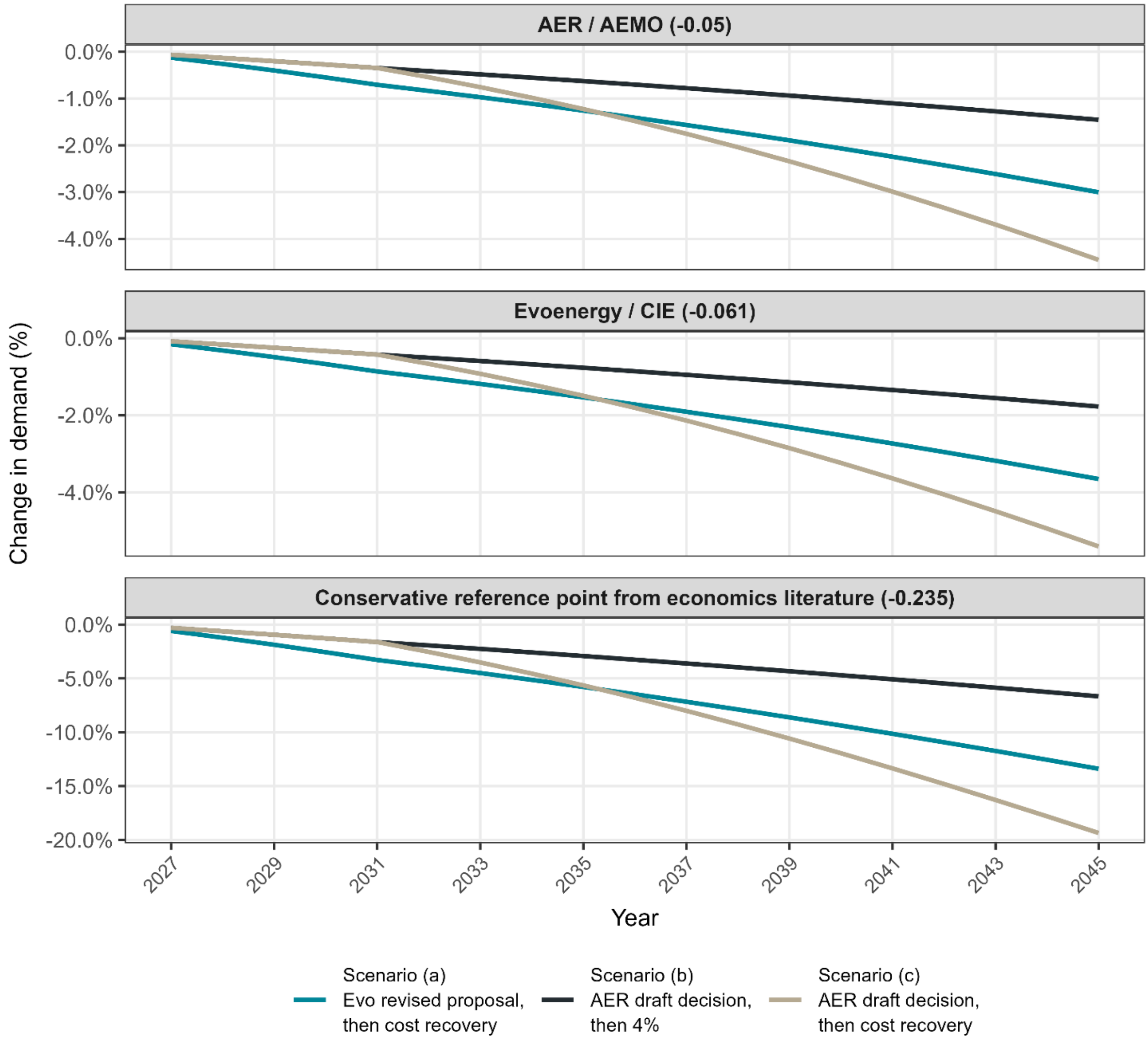
[16] First report, section 3.1.1.

[17] I understand that, for the purpose of the bill impact assessment in its revised proposal, Evoenergy adopted an assumption that the network component of the retail price is 29.2 per cent at the start of the access arrangement. I adopt this same assumption as at the start of the access arrangement for the purpose of my analysis.

2.2.2 Results

I present the estimated aggregate percentage change in demand for natural gas over time for each network price and elasticity scenario in Figure 2.3. The reductions in demand estimated in my analysis are expressed by reference to the level of demand that applies at the start of the 2026-31 access arrangement.

Figure 2.3: Estimated aggregate change in demand for gas consumption, by scenarios of network price path and price elasticity



I present my results over the period to 2045 in tabulated form, consistent with my first report, in Table 2.2. In particular, I present both the average annual incremental change in demand and the total incremental change in demand as at 2045, both expressed in relative terms.

Table 2.2: Estimated incremental effect of change in network price on demand for gas consumption in 2045, assuming unchanged non-network prices

Change in network price*	Change in retail price**	Change in demand*** (on average per annum, values in brackets represent total change over nineteen-year assessment period)		
		Price elasticity = -0.05	*Price elasticity = -0.061*	*Price elasticity = -0.235*
Scenario (a) **Evo revised proposal, then cost recovery**	3.21% on average per annum	0.16% per annum (3.00% total 19 years)	0.20% per annum (3.65% total 19 years)	0.75% per annum (13.39% total 19 years)
Scenario (b) **AER draft decision, then 4%**	1.54% on average per annum	0.08% per annum (1.46% total 19 years)	0.09% per annum (1.77% total 19 years)	0.36% per annum (6.67% total 19 years)
Scenario (c) **AER draft decision, then cost recovery**	4.76% on average per annum	0.24% per annum (4.45% total 19 years)	0.29% per annum (5.40% total 19 years)	1.13% per annum (19.35% total 19 years)

*Note: *Change in network price represents annual change of the defined amount over the 19-year assessment period.*
***Change in retail price differs from year to year due to the increasing network share of retail prices; the values in the table represent the average annual change in retail price over the assessment period.*

For the reasons described in section 2.2.1, I include a price elasticity of demand estimate equal to -0.235 as a conservative reference point only. I therefore draw my conclusions from the results of applying the price elasticity of demand estimates that are reflected in the demand forecasts adopted:

- by Evoenergy, as based on research by the CIE that is both recent and specific to the ACT; and
- by the AER, as based on the estimate adopted by AEMO.

Based on these estimates of price elasticity, my analysis indicates that the total incremental decrease in demand for gas over the period to 2045 would be equal to:

- 3 per cent to 3.65 per cent based on **scenario (a)** – Evoenergy's revised proposal price path for the upcoming access arrangement, followed by prices that permit it to recover its efficient costs by 2045;
- 1.46 per cent to 1.77 per cent based on **scenario (b)** – a network price path of 4.5 per cent per annum over 2026-31, as in the AER draft decision, then 4 per cent per annum until 2045, reflecting an assumption that Evoenergy will not recover its costs; and
- 4.45 per cent to 5.40 per cent based on **scenario (c)** – a network price path of 4.5 per cent per annum during 2026-31, as in the AER draft decision, then 11.7 per cent per annum until 2045 to enable Evoenergy to recover its costs.

My analysis therefore indicates that, when assessed over the period to 2045 and based on the price elasticity assumptions that underpin their demand forecasts, no material effect on demand would be expected to arise from the price implications of either:

- the AER's draft decision, as reflected in scenarios (b) and (c); or
- Evoenergy's revised proposal, as reflected in scenario (a).

I note also that, in my opinion, the materiality of the incremental effect on demand over this extended period should be considered in the context of the strong decline in demand that is expected to occur over this same period, as driven by factors beyond Evoenergy's control, eg, ACT government policy.

Important context to this long term analysis is also that the AER's decision on depreciation for the 2026-31 access arrangement does not preclude application of a different approach in subsequent access arrangements. In my opinion, it is therefore the estimated effect on demand over the 2026-31 access arrangement that is most relevant to the AER's decision on depreciation, as presented in my first report.

2.2.3 Sensitivity of results to non-network price changes

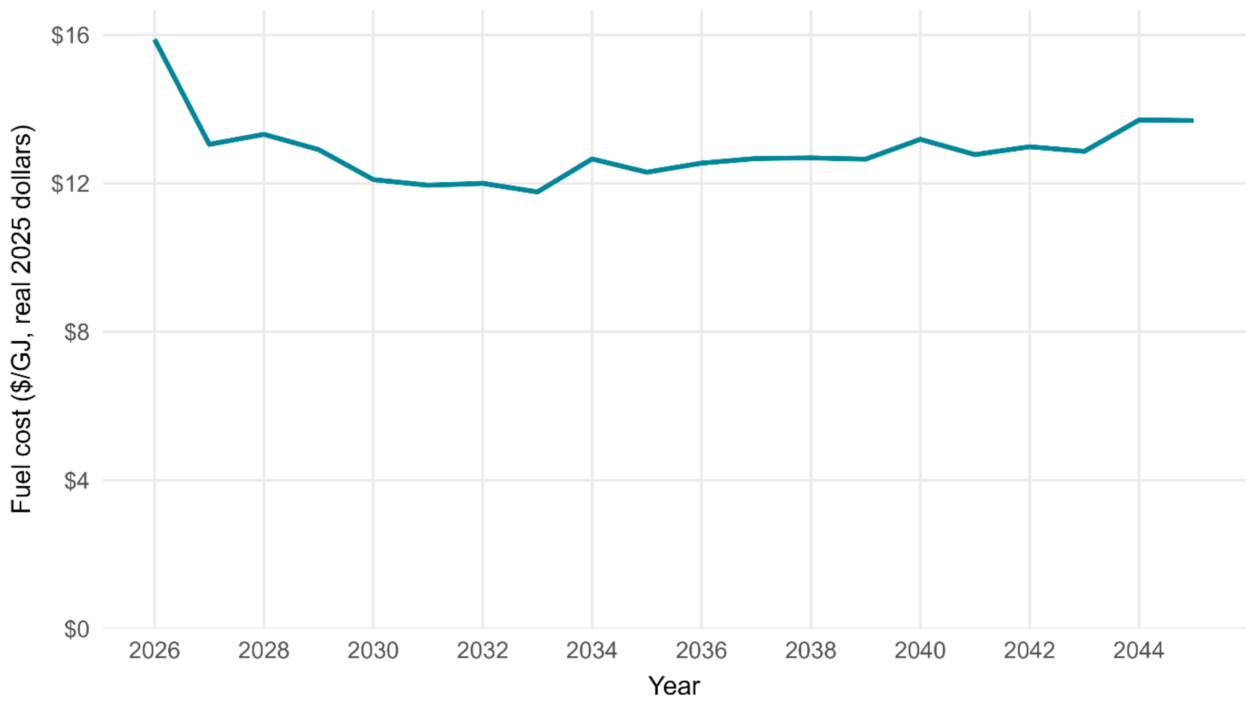
The analysis that I present above is based on an assumption that the non-network component of the retail price does not increase in real terms, such that the network component of the retail price increases materially through time, ie, to between 50 and 72 per cent by 2045, depending on the network price scenario.

I consider below the sensitivity of my results to potential changes in price for the non-network component of retail prices.

To this end, I assume that the non-network price would increase or decrease in line with the change in the residential and commercial gas price[18] that is forecast by the AEMO. I present these forecast residential and commercial gas prices in Figure 2.4.

AEMO observes that tight market conditions have largely resulted in price increases through 2026. Following this period until early 2030s, price forecasts are expected to decline, largely driven by a forecast reduction in liquified natural gas netback prices. Beyond the early 2030s, price forecasts increase gradually due to a combination of decreasing supply and increasing real production costs.[19]

Figure 2.4: Forecast residential / commercial fuel costs ($/GJ, real 2025 dollars)



Source: AEMO Inputs, Assumptions and Scenarios Report 2025, August 2025, available at https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr*, tab 'Final IASR', workbook '2025 Inputs and Assumptions Workbook', sheet 'Gas, Liquid fuel, H2 price'.*

[18] AEMO does not provides forecast for the Canberra region specifically. I apply the forecast for Sydney as a proxy in my analysis.

[19] These reasons are provided in the context of explaining the trajectory of industrial gas price. I observe that AEMO's residential / commercial gas price forecast follows a similar trajectory to the industrial gas forecast, and therefore it is reasonable to assume that the explanations above also hold for residential / commercial gas price forecast. Source: AEMO, 2025 Inputs, Assumptions and Scenarios Report, August 2025, pp 148-149, available at https://www.aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2025-iasr-scenarios/final-docs/2025-inputs-assumptions-and-scenarios-report.pdf?rev=63268acd3f044adb9f5f3a32b6880c27&sc_lang=en, accessed on 12 February 2025.

Based on the assumption that I describe above, this means that the non-network price would generally decrease over the 2026-31 access arrangement, before generally increasing slowly over the remaining period to 2045.

This reduction in the non-network price acts to offset the effect on demand of the increasing network prices in the scenarios I evaluate, such that my estimates of the effect on demand decrease slightly in comparison to those presented in section 2.2.1.

In Table 2.3 I present the results of the estimated effect on demand for gas consumption based on an assumption non-network prices change in line with AEMO's forecast residential and commercial gas price.

Table 2.3: Estimated effect of change in network price on demand for gas consumption in 2045, assuming non-network prices would change based on AEMO's long-term gas price forecasts

Change in network price*	Change in retail price**	Change in demand*** (on average per annum, values in brackets represent total change over five-year assessment period)		
		Price elasticity = -0.05	*Price elasticity = -0.061*	*Price elasticity = -0.235*
Scenario (a) – Evoenergy's proposed price path	2.91% on average per annum	0.15% per annum (2.79% total 19 years)	0.18% per annum (3.39% total 19 years)	0.70% per annum (12.53% total 19 years)
Scenario (b) – AER's draft decision, followed by prices reflecting assumption that Evoenergy will not recover costs	1.14% on average per annum	0.06% per annum (1.14% total 19 years)	0.07% per annum (1.39% total 19 years)	0.29% per annum (5.30% total 19 years)
Scenario (c) – AER's draft decision, followed by prices that permit Evoenergy to recover costs	4.53% on average per annum	0.23% per annum (4.34% total 19 years)	0.28% per annum (5.27% total 19 years)	1.10% per annum (18.98% total 19 years)

*Note: *Change in network price represents annual change of the defined amount over the 19-year assessment period.*
***Change in retail price differs from year to year due to the increasing network share of retail prices; the values in the table represent the average annual change in retail price over the assessment period.*

3. Incentive to manage demand

In this section I comment on the incentives for Evoenergy to manage the expected decline in gas demand over the remaining economic life of its assets.

3.1 Incentive framework

I understand that Evoenergy and the AER both expect that:

- demand for gas in the ACT will continue to decline over the coming access arrangement periods, driven by ACT government policy to reduce greenhouse gas emissions; and
- this could ultimately preclude Evoenergy from recovering its efficient costs over the economic life of its assets.

Each incremental reduction in demand for gas magnifies the risk that Evoenergy will be unable to recover its efficient costs. Evoenergy therefore faces a strong incentive to minimise the rate of decline in the demand for gas.

Disconnections from its network are particularly consequential for Evoenergy, owing to their irreversible nature and the resulting foregone opportunity to recover costs from disconnected customers over the remaining economic life of its network assets.

It is therefore in Evoenergy's own commercial interests to minimise disconnections from its network and further declines in demand for gas.

Further, I explained in my first report that inherent in the AER's approval of maximum network prices for 2026-31 is the ability for Evoenergy to reduce prices below the level approved by the AER.

Should an increase in price lead to unexpected material further declines in demand for gas – in contrast to evidence from the economics literature, the CIE's research and the assumptions adopted by AEMO on the price elasticity of demand for gas – Evoenergy has the ability to arrest this decline in demand by reducing prices below the maximum level approved by the AER.

It follows that should an increase in price lead to unexpected material further declines in demand for gas, Evoenergy has both the ability and a strong incentive to respond by reducing prices below the maximum level approved by the AER.

This strong commercial incentive applies over an extended period and in the short term, owing to the AER's proposed specification of a tariff variation mechanism.

3.2 Tariff variation mechanism

I explained in my first report that the AER rejected Evoenergy's proposal to apply a tariff variation mechanism (TVM) that included an annual true-up of any under- or over-recovery of revenue, relative to the level of revenue that underpinned the AER's decision.[20]

[20] AER, *Draft decision – Evoenergy (ACT) access arrangement 2026 to 2031 (1 July 2026 to 30 June 2031) Attachment 5 – Reference services, tariffs and non-tariff components*, November 2025, pp 19-23.

I understand that the intention of the alternative 'hybrid' approach put forward by the AER is that:[21]

- no adjustment to future revenue is made in respect of differences between actual and forecast revenue up to a specified threshold; and
- beyond that threshold, an adjustment to future revenue is applied based on a proportion of the difference between actual and forecast revenue.

It follows from this arrangement that future prices are not adjusted for:

- for the full amount of any under- or over-recovery up to a specified threshold; and
- a proportion of the incremental under- of over-recovery beyond that threshold.

Evoenergy will therefore be financially worse-off (or better-off) to the extent that demand for gas in each year of an access arrangement is below (or above) the level forecast.

It follows that, under the TVM described in the AER's draft decision, Evoenergy will face an incentive to minimise the reduction in demand in each year of an access arrangement.

[21] AER, *Draft decision – Evoenergy (ACT) access arrangement 2026 to 2031 (1 July 2026 to 30 June 2031) Attachment 5 – Reference services, tariffs and non-tariff components*, November 2025, p 1.

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