

# Attachment 2: Demand forecast

Access arrangement information

ACT and Queanbeyan-Palerang gas network access arrangement 2026–31

Submission to the Australian Energy Regulator

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## 1. Introduction

More than ever, the demand forecast is critical to Evoenergy's access arrangement access arrangement proposal. Demand on our gas network has passed its peak, with both customer numbers and average consumption now in firm decline. The ACT is leading the nation in its shift away from gas, underpinned by a legislated target of net zero emissions<sup>1</sup> and a clear plan to fully electrify by 2045.

The transition is well underway, and our customers have demonstrated among the highest willingness and ability to move off gas nationally. ACT Government policies – such as the ban on new gas connections, financial incentives for electrification, and strong public messaging – are shaping household and business decisions. At the same time, declining demand will drive higher network charges as fewer customers share largely fixed network costs, which will in turn further reduce demand. In this context, the demand for gas is not just an input into our proposal – it is a key reason for it.

While the end of the gas network is planned for 2045, demand forecasting remains challenging, and the path to 2045 will be influenced by many factors. The ACT Government's Integrated Energy Plan (IEP) charts a trajectory for the transition in three distinct phases:

- 1. a customer-led phase (2023–2030), where the pace of electrification will be largely defined by the choices and preferences of ACT households and businesses, and their responses to current policy settings
- **2.** an "accelerate" phase (2030–35) will involve additional policy intervention to "accelerate" the transition for those customers who haven't yet made the choice to switch off gas
- **3.** a final stage (2035–45) marking the start of the ACT Government's plan towards phased decommissioning of the network and transitioning any remaining, hard-to-shift customers.

This staged approach means that gas demand will be shaped to various degrees by the impacts of current policies, future policies, and customer responses, all of which carry some uncertainty over the long term. A midpoint review of the first IEP covering 2024–30 (IEP1) in 2027 is likely to bring further changes to meet emissions reduction targets, but their nature is not yet known.

While average consumption on Evoenergy's network has been in decline for over a decade, recent trends signal an accelerating decline. In 2023–24, gas use on our network fell by an unprecedented 14 per cent, to the lowest level observed in 17 years. Only half of the 2023–24 decline can be attributed to weather, suggesting the likelihood of deeper changes in how customers are using gas. More data in 2025, ahead of the AER's final decision, will be crucial to assess if this trend continues.

Meeting these challenges and planning for the long-term interests of our customers calls for changes to the typical approach used to forecast demand in prior periods. Our forecast for 2026–31 must be more rigorous and forward-looking than ever before, to support fair pricing, efficient investment, and a just transition for our customers. Evoenergy has a narrow window of time to make the right long-term decisions on network investment, pricing, and capital cost recovery to support a stable and equitable transition for the gas network. A robust demand forecast is a key input to these decisions.

We engaged independent experts, the Centre for International Economics (CIE), to develop a detailed gas demand forecast for the 2026–31 access arrangement period, and beyond to 2045.

<sup>&</sup>lt;sup>1</sup> Climate Change and Greenhouse Reduction Act 2010 (ACT).

We set an ambition to place customers at the centre of the forecast, recognising the ACT's leading policy mandate for electrification, our highly winter-peaking climate, and our community's distinct values and preferences. CIE delivered a first-of-its-kind approach for our gas network, combining econometric modelling with extensive customer research across residential, commercial and industrial market segments.

The result is a robust forecast grounded in our customers' unique energy preferences and behaviours, the choices they face today, and the decisions they will need to make in future. It represents the most detailed analysis to date of our gas customers and their energy choices. We believe this provides the best demand forecast for Evoenergy's gas network for the 2026–31 access arrangement period. Our demand forecast shows:

- gas customer numbers declining by an average of 7.8 per cent per year over the 2026– 31 period, resulting in a total reduction of approximately 28 per cent. This decline is driven primarily by residential customer electrification, in line with the ACT Government's energy transition policies
- total gas consumption decreasing by around 6.7 per cent per year, or 24 per cent over the period, with smaller residential customers exiting the network earlier, while larger customers take longer to electrify.

This attachment sets out our forecast of gas usage and customer numbers for the 2026–31 access arrangement period and beyond to 2045. It reflects what we know today, aligned with the ACT Government's IEP1, while acknowledging the uncertainties that lie beyond. Managing this uncertainty is critical to safeguarding our customers' long-term interests, and we have outlined a comprehensive plan to mitigate the impacts of uncertainty in Attachment 9: Tariff variation mechanism.

The remainder of this attachment outlines our forecast methodology, key results, how the forecasts have been shaped by ACT Government policy, and what we have heard from our customers.

Supporting this attachment is a detailed report and model from CIE, which explains how the forecast has been developed in accordance with the requirements of the National Gas Rules (NGR), and provides methodological details and findings underpinning the forecast:

- Appendix 2.1: CIE, Gas demand forecast report.
- Appendix 2.2: CIE, Price elasticity of demand for natural gas.
- Appendix 2.3: CIE, Gas demand forecast model.

Also supporting this attachment is a research report from Sagacity, commissioned by Evoenergy, on the future demand for natural gas in the ACT (Appendix 2.4).

## 2. An ACT-specific, customer-driven forecast

Evoenergy's demand forecast is underpinned by a new, ACT-specific approach designed to reflect the ACT's unique policy landscape and customer context. The 2026–31 access arrangement period aligns closely with the first phase of the IEP, during which the pace of electrification is expected to be primarily customer-led. Customer choices will be influenced by current policy settings, as well as new policies introduced after the IEP midpoint review in 2027. This requires a fundamentally new forecasting approach that captures not just historical trends, but also forward-looking customer behaviours and policy impacts.

CIE's approach integrates a traditional econometric model with robust customer research, enabling us to quantify the pace and shape of the transition in a way that aligns with customer choices and government policy. The forecasting method comprises two key components:

- 1. a **baseline forecast**, which draws on customer-level billing data and regression modelling to project future demand under historical trends, excluding disconnections (to avoid double-counting with the switching forecast)
- **2.** a **switching forecast**, which estimates how and when customers will disconnect from gas in the future, informed by detailed survey data and decision-modelling.



Figure 1 Evoenergy's ACT-specific approach to forecasting demand

The switching forecast is a key innovation in our approach. For residential customers, CIE conducted a stated preference survey of 1,885 customers, capturing how they would respond to appliance replacement scenarios under varying prices and electrification costs. The analysis incorporates appliance age, household characteristics, and customer motivations such as costs, environmental concern, and appliance preferences. The modelling assumed a continuation of current policy settings and financial incentives, plus a future ban on new gas appliances from 2030 (a policy response flagged in the IEP).

To ensure accuracy, the customer research applied techniques to mitigate "hypothetical bias" in the survey responses. This included accounting for practical barriers to switching, uncertainty about decisions, and the staging of appliance replacement over time.

For commercial customers, the analysis involved targeted surveys and interviews to capture switching intentions, constraints, and responses to projected gas price movements. Adjustments were also made based on publicly available information about large customers' electrification plans and commitments, particularly government customers and larger commercial users.

Another key innovation is that our demand forecast explicitly accounts for the interdependence between gas demand and network prices. As demand declines, fixed network costs are recovered over a smaller customer base, which in turn increases prices and drives further disconnection and reduced usage. This feedback loop was captured through an iterative modelling process, ensuring the forecast reflects the dynamic relationship between price movements and customer decisions in both the short- and long-term. The demand forecasts presented in this attachment are derived from the revenue building blocks and resulting price paths in Evoenergy's proposal.

To meet the requirements of the Evoenergy's access arrangement proposal, the CIE has developed forecasts for our two tariff classes:

- 1. volume customers includes around 150,000 residential and commercial customers who use less than 10 terajoules (TJ) of gas annually, and are charged a fixed charge and volume charges which depend on the volume of gas they consume
- 2. demand customers includes around 40 of our largest commercial, industrial, and public sector customers who use more than 10 TJ of gas annually and are mainly charged based on "chargeable demand" (a measure of how much capacity they require).

For each class, CIE forecasts total gas usage by combining a forecast of customer numbers and usage per customer, with both of these parameters being interdependently derived using customer-level decision-modelling. The forecasting approach for each class is explained below. Detailed explanations of the forecasting methodology and assumptions are provided in Appendix 2.1: CIE, Gas demand forecast report.

#### 2.1.1 Volume customers

Volume customers make up the majority of Evoenergy's gas network customers, encompassing residential and commercial customers using less than 10 TJ per year. Together, these customers account for approximately 85 per cent of gas volumes on Evoenergy's network. In developing the forecasts, CIE segmented the volume market by residential and commercial customers, as well as NSW and ACT customers, to reflect the different drivers of demand across these groups. Residential customers were further segmented by detached dwellings and medium/high density dwellings.

Figure 2 summarises the forecasting methodology and key inputs for volume customers.





Figure 2 Overview of volume customer forecasting methodology and key inputs

#### 2.1.2 Demand market customers

Demand customers are very large commercial or government customers that each generally use more than 10 TJ per year. These customers are typically charged based on their "chargeable demand", a measure of how much network capacity they require. In 2023–24, Evoenergy had 44 customers in the demand tariff class (around 0.03 per cent of total network customers), accounting for around 15 per cent of gas use on the network.

Given the significant differences in how individual demand customers use gas, and their relatively small number, CIE developed forecasts for this class at an individual customer level. The forecasts consider evidence from interviews with roughly half of Evoenergy's demand customers, as well as publicly available evidence about electrification commitments by large commercial and government customers. Recognising that not all demand market customers have finalised their long-term plans for electrification, it was assumed that any remaining customers would decrease gas usage to zero in a linear fashion between 2041 and 2045, consistent with the network decommissioning stages of the ACT Government's IEP.

Figure 3 summarises the forecasting methodology and key inputs for demand market customers.





Figure 3 Overview of demand customer forecasting methodology and key inputs

#### 2.2 Impacts of the ACT policy context

Evoenergy's demand forecast is built upon the ACT Government's strong policy platform to drive electrification, in line with a commitment to completely phase out natural gas by 2045. Table 1 shows the ACT's legislated interim emissions reduction targets, recalculated by Evoenergy relative to 2024 emission levels, on the pathway to meet the ACT's commitment of net zero emissions by 2045.

Table 1 ACT legislated emissions reduction targets (recalculated relative to 2024 levels)

	2025	2030	2040	2045
Emissions reduction targets relative to 2024 levels	9%	40%	85%	100%

Source: Climate Change and Greenhouse Gas Reduction (Interim Targets) Determination 2018, made under the Climate Change and Greenhouse Gas Reduction Act 2010 (ACT). Legislated targets are relative to 1990 levels and have been recalculated by Evoenergy relative to 2024 emissions, using data from the ACT Government's ACT Greenhouse Gas Inventory for 2023–24.

The ACT Government's IEP lays out a clear plan to meet emissions reduction targets, including through a staged phasing out of natural gas in the ACT.

The first stage of the IEP, which will occur alongside most of the 2026–31 access arrangement period, seeks to encourage and support consumers to electrify their appliances, including through financial incentives and public messaging. In addition, stage one of the IEP involved a legislated ban on new gas connections in the ACT (which came into effect in late 2023) and a commitment to fully electrify all public housing by 2030 and all ACT Government-owned and operated buildings by 2040.

Several financial-support and technical advice programs are currently available to ACT customers, which will drive electrification during the 2026–31 access arrangement period and beyond. These are set out below.

- **Sustainable Household Scheme**: provides interest-free loans of up to \$15,000 to, among other things, assist with the upfront cost of switching to electric appliances.
- Home Energy Support Program: provides up to \$5,000 in rebates for low-income homeowners to install electric appliances.
- Access to Electric Program: provides fully funded electric appliance upgrades to eligible households experiencing financial hardship.
- Energy Efficiency Improvement Scheme: requires energy retailers to administer and deliver energy savings measures to households and businesses, including rebates for the installation of electric appliances.
- **Sustainable Business Program:** provides technical advice and rebates of up to \$10,000 to support businesses in transitioning off gas.
- **Commercial Kitchen Trial:** provides eligible hospitality businesses with rebates of up to 50% of the cost of replacing gas equipment with electrical alternatives and disconnecting from the gas network.
- **Retrofit Readiness Program:** provides education, advice, and technical assessments of multi-unit buildings to help unit owners develop a plan to electrify.
- Additional financial incentives to support the uptake of rooftop solar, which may further accelerate the transition as solar energy makes electrification more attractive.

With the first stage of the IEP being largely consumer-led, there is a degree of uncertainty around further policy measures that may be introduced towards the beginning of the "accelerate phase" of the IEP in 2030.

During this second phase of the IEP, the ACT Government has signalled the introduction of additional policy settings to hasten the transition. In particular, the IEP states that "The ACT Government will need to explore options to accelerate the transition and move towards regulatory options to ensure emissions reduction targets are met. This could include updating the minimum standards for rental properties or prohibiting the installation of new gas appliances towards the end of this decade".<sup>2</sup> Such measures are likely to be introduced following the ACT Government's IEP1 midpoint review in 2027.

Our demand forecast assumes a ban on new gas appliances from 2030, a measure that has been flagged in the ACT Government's IEP. However, additional as-yet-unknown policies may also be introduced during this phase, which could place further downward pressure on gas demand towards the end of the 2026–31 period and beyond. Since the specifics of such future policies are not yet known (for example, any new requirements that may be introduced for rental properties), they are not included in Evoenergy's demand forecast. Our forecast, therefore, likely reflects a conservative outlook for future reductions in gas demand, particularly post-2030.

Under Evoenergy's proposed revenue cap form of control, we will gradually and incrementally update our demand forecast each year to account for actual, estimated, and forecast gas demand over a rolling three-year window. This mechanism will ensure that our forecasts are

<sup>&</sup>lt;sup>2</sup> ACT Government, <u>The Integrated Energy Plan 2024–2030</u>; <u>Our pathway to electrification</u>,

June 2024, p. 27; ACT Government, Developing ACT's Integrated Energy Plan, August 2023, p. 14.



responsive to any future policy changes, that price impacts are smoothed over time, and that the prices our customers pay are always at efficient levels. Our revenue cap mechanism is further described in Attachment 9: Tariff variation mechanism.

#### 2.3 Findings from our customer research

Given the ACT policy context, demand forecasts based solely on projections of historical drivers of gas demand are unlikely to be accurate and would not be a reasonable expectation of the future. To better understand the drivers behind electrification decisions in the ACT market, Evoenergy commissioned CIE to conduct customer research to estimate the timing and drivers of electrification choices among gas network customers.

The research involved a statistically valid choice modelling survey of 1,885 residential gas customers, a survey of 36 small to medium commercial customers, and targeted interviews with 24 very large customers on Evoenergy's demand tariff. The research findings formed a foundation for Evoenergy's demand forecast, including establishing the relationship between prices and demand, a detailed account of residential gas appliances (including types and ages of appliances), and understanding customers' preferences and electrification plans.

Key findings from the research are set out below, with detailed results presented in Appendix 2.2: Price elasticity of demand for natural gas.

- Diverse factors are influencing household electrification the highest ranked factors are the affordability of upfront costs, total costs over time, environmental concerns, and appliance quality. For most households, the timing of switching decisions is tied to appliance failure or home renovation.
- Our network has an ageing stock of gas appliances, bringing forward electrification decisions – the average age of gas heaters on Evoenergy's network is approaching 11 years, and 25 per cent of heaters are over 16 years old. CIE's analysis shows that around one-third of households on the network are expected to have their major gas appliance fail within the next five years.
- More than half of households have made up their mind to switch the majority of households intend to electrify regardless of price levels and rebates, and approximately one in ten households intend to do so before their appliances fail (many motivated by environmental concerns).
- Some households will make their choice based on price, and some prefer to stay on gas for around one-third of households, the choice between new gas and electric appliances depends on relative costs. Around ten per cent of households said they have a strong preference for gas appliances and would not switch even with financial incentives.
- Income level and owner-occupier status influence disconnection decisions middle income households (\$78,000–\$156,000 per annum) showed the highest propensity to disconnect from gas, followed by higher income households (>\$156,000 per annum), and then lower income households (less than \$78,000 per annum). Owner-occupiers are most likely to disconnect their property from gas, but landlords are only around six per cent more likely to keep a rental dwelling connected to gas by 2030–31.
- Renters have stronger preferences for electric appliances compared to gas around one-quarter of renters don't have a strong preference for fuel type but, of those who do, around 60 per cent prefer electric. Appliance running costs are a major factor for renters

when choosing where to live, and 56 per cent of renters said they would contact their landlord about changing appliances or look for another home (or both) if gas prices increased by 50 per cent or more.

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Commercial customers are reducing their usage, but electrification is more difficult

 around 40 per cent of commercial customers intend to reduce their gas usage by 50 per cent or more by 2045, but only one in five currently have a plan to disconnect by 2045. Around one-third of commercial customers indicated that the timing of their usage reduction or disconnection would be affected by gas price increases.

The findings from CIE's customer research are supported by findings from other recent research, including surveys conducted by Energy Consumers Australia (ECA) and Sagacity. This research shows that ACT households are increasingly open to electrification and are more likely to electrify than any other jurisdiction in Australia.

Sagacity's research, commissioned by Evoenergy in 2024 following a similar study in 2020, found that there has been a strong shift in residential customer preferences towards electrification, even for traditionally popular gas appliances like cooktops (Appendix 2.4). Sagacity found that 32 per cent of residential gas customers are likely to change existing gas appliances to electric in the next five years (up from 18 per cent of customers in the 2020 study). Between 2020 and 2024, there has been a 78 per cent increase in the proportion of residential gas customers who are likely to change existing gas appliances over to electric. Gas heaters are the most popular appliance for households to electrify and are typically the biggest contributor to household gas use. Similar to CIE's research, Sagacity found that cost and environmental concerns were the primary factors influencing electrification decisions.

Research by ECA in 2024 found that ACT households have a much higher propensity to electrify than any other jurisdiction.<sup>3</sup> According to ECA, around 65 per cent of households in the ACT plan to cancel their gas supply within the next 10 years, compared to only 35 per cent of households nationally. Victoria, the jurisdiction with the next highest propensity to switch, recorded only 37 per cent of households with plans to electrify. ECA found that households in the ACT were the most likely in the nation to think it was important to reduce gas use to achieve emissions reductions.

Similar to Sagacity's research, ECA found that the proportion of ACT households likely to electrify in the next decade was accelerating over time. According to ECA, the proportion of ACT households intending to electrify by the end of the decade has more than doubled from 31 per cent of households in 2021<sup>4</sup> to 65 per cent in 2024.

<sup>&</sup>lt;sup>3</sup> ECA, How households use gas and their attitudes towards electrification: analysis of the December 2024 Consumer Energy Report Card, 2025.

<sup>&</sup>lt;sup>4</sup> ECA, Behaviour Survey October 2021 | Topline data, October 2021.

#### 2.4 Recent trends impacting the forecast

Evoenergy's demand forecast has been developed during a period of accelerating declines in gas use, driven by a combination of customer preferences, ACT policy measures, and recent weather patterns. These recent trends, particularly visible during winter, form the starting point for Evoenergy's demand forecast and signal the importance of ensuring that current drivers of demand are fully reflected in the demand forecast.

Evoenergy's network has a strongly residential gas demand profile (Figure 4). Evoenergy has the highest proportion of residential gas load nationally, almost double that of NSW and South Australia. This has two important consequences. First, Evoenergy's network has relatively less commercial and industrial load, which in other jurisdictions helps smooth demand over the year and provides longer-term stability. Second, ACT gas demand is more directly influenced by household electrification decisions, as well as ACT Government policies and incentives that largely target residential customers.



Figure 4 Composition of gas demand across jurisdictions by customer type 2023–24

Source: Evoenergy analysis of 2023–24 RIN data.

Combined with the ACT's cold winter climate, this residential dominance contributes to a highly seasonal demand profile. Indeed, Evoenergy's gas volumes in July are around five times greater than in January. This demand profile is largely influenced by gas use for space heating, making it especially sensitive to residential customer switching behaviour.

While average residential gas usage has been declining steadily since 2002, the rate of decline has steepened in recent years (Figure 5). The last two winters showed notably lower residential gas use, along with rapidly declining growth in connections, contributing to a 14 per cent decline in total gas volumes in 2023–24 to the lowest levels observed in 17 years. CIE's analysis shows that only around half of this drop can be explained by milder weather conditions, indicating that shifting customer behaviour is playing a significant role.



Figure 5 Average usage per residential customer by month

As shown in Figure 5, usage reductions are concentrated in the winter months. Average residential winter consumption has dropped from approximately 9 GJ per month in the early 2000s to around 4.3 GJ by winter 2024. Summer consumption, in contrast, has remained relatively steady, pointing to the electrification of heating loads as a key reason for declining demand. These trends align with Evoenergy's customer research (Section 2.3), which highlights a growing propensity among households to replace gas heaters with electric alternatives.

As the owner of both the ACT's electricity and gas networks, we are in a unique position to observe trends in tandem across both networks. We can see that the impact of this transition is also visible on the ACT electricity network.

Evoenergy has recorded four consecutive years of unexpectedly high winter electricity peaks, culminating in a record high demand of 730 MW in winter 2025.<sup>5</sup> Notably, there is emerging evidence from Evoenergy's new electricity tariffs showing that off-peak electricity demand (9pm–9am) in winter and autumn is now exceeding the traditional peak period (5pm–9pm), signalling early-morning heating loads shifting to electricity.<sup>6</sup>

Evoenergy is closely monitoring gas demand in 2025, particularly through the winter months. Whether recent declines in gas usage represent a new long-term trajectory will have important implications for the forecast. This additional data will help validate and refine Evoenergy's demand forecast in the revised proposal and ahead of the AER's final decision for the 2026–31 access arrangement period.

<sup>&</sup>lt;sup>5</sup> Preliminary analysis of 20 June 2025.

<sup>&</sup>lt;sup>6</sup> Evoenergy, 2025–26 Electricity Network Pricing Proposal, March 2025.

## 3. Demand forecast results

This section provides an overview of Evoenergy's gas usage and customer number forecasts for the 2026–31 access arrangement period, and beyond to 2045. Detailed forecast results, including forecasts for individual tariff components, are contained in Appendix 2.1: Gas demand forecast report.

#### 3.1 Volume tariff customers 2026–31

Table 2 sets out Evoenergy's forecast of customer numbers (defined as the number of fixed charges) and total usage for volume tariff customers during the 2026–31 period. This captures customers on Evoenergy's Volume Individual and Volume Boundary tariffs.

Table 2 Volume market forecast 2026–31

	2026–27	2027–28	2028–29	2029–30	2030–31
Connections (fixed charges)	143,182	133,724	123,557	113,249	103,329
Total usage (TJ per annum)	5,267	4,936	4,591	4,244	3,910

Note: Connection numbers are expressed as an average over the year.

Figure 6 shows forecast and historical usage and connection numbers for volume tariff customers. Connections are expected to decline by 28 per cent during the 2026–31 access arrangement period, reflecting the ACT's ban on new gas connections and customer electrification decisions, largely driven by residential appliance replacement.

Average usage per connection is expected to increase slightly over the 2026–31 access arrangement period, as smaller residential customers will be the first to disconnect, leading to a greater predominance of larger residential and commercial customers remaining on volume tariffs. Overall, total gas usage on the volume tariff is forecast to decline by 26 per cent, from 5,267 TJ in 2026–27 to 3,910 TJ in 2030–31. This represents an average annual decline in gas usage of around 6.6 per cent over the 2026–31 access arrangement period, which is less than the 14 per cent annual decline observed in the most recent year of actual data. Evoenergy will consider the most recent available data, including winter 2025, when it develops an updated demand forecast for its revised access arrangement proposal, expected in early 2026.



*Figure 6 Volume tariff historical and forecast connection numbers and usage* 

#### 3.2 Demand tariff customers 2026–31

Table 3 sets out Evoenergy's forecast of customer numbers, total usage, and chargeable demand for demand tariff customers during the 2026–31 access arrangement period. This forecast captures very large customers on Evoenergy's Demand Capacity and Demand Throughput tariffs.

	2026–27	2027–28	2028–29	2029–30	2030–31
Connections (fixed charges)	43	43	42	41	40
Total usage (TJ per annum)	1,005	955	915	870	834
Total chargeable demand (GJ per day)	5,397	5,147	4,936	4,692	4,512

Note: Connection numbers are expressed as an average over the year

Figure 7 shows forecast and historical usage and connection numbers for demand tariff customers. Connections are expected to decline by three customers (eight per cent) during the 2026–31 access arrangement period, based on known timing information for demand tariff customer electrification and disconnection. Total gas usage for demand tariff customers is forecast to decline by 17 per cent from 1,005 TJ in 2026–27 to 834 TJ in 2030–31.



Figure 7 Demand tariff historical and forecast connection numbers and usage

#### 3.3 Longer-term forecast to 2045

While the NGR do not require forecasts beyond the 2026–31 access arrangement period, Evoenergy has developed a longer-term forecast to 2045. For Evoenergy, providing a long-term view supports long-term planning and decision-making in relation to network investment, capital cost recovery, and customer impacts throughout the ACT's energy transition. For customers, having a long-term view provides valuable information to inform their own planning and electrification decisions. A longer-term forecast also allows customers to engage in an informed way on Evoenergy's access arrangement proposal positions, particularly the extent to which Evoenergy has addressed the community's expectations of an equitable transition.

The extended forecast is made possible by the ACT Government's clear commitment to phase out natural gas by 2045, including its target for net zero emissions and the staged transition pathway set out in the IEP. Importantly, the ACT Government has confirmed that green gas alternatives will not be pursued as a widespread replacement for natural gas in the ACT. This provides us with a rare degree of certainty surrounding the known endpoint for gas demand in 2045.

However, even with this clear direction and known endpoint, uncertainty inevitably increases over longer time horizons. The ACT Government has flagged further policy measures as part of the IEP's "accelerate" phase from 2030 onward, and Evoenergy's modelling shows that additional measures will be needed to meet interim emissions reduction targets. However, the timing, scope and design of future policies remain uncertain. Similarly, the evolution of customer behaviour, technological advancements, and cost trajectories across the electrification supply chain will all influence the pace and nature of the transition over the outer years of the ACT's energy transition.

These uncertainties highlight the importance of regularly reviewing the demand forecast and adapting to emerging trends as the ACT progresses toward its 2045 goal. Evoenergy has

explicitly accounted for this requirement in its tariff variation mechanism (TVM), which includes rolling annual updates to the demand forecast to be approved each year by the AER (Attachment 9: Tariff variation mechanism).

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Figure 8 presents Evoenergy's longer-term demand forecast for connections and gas usage on the network. Our modelling includes a policy ban on new gas appliances from 2030 (a measure flagged in the IEP), long-term projections of gas and electricity prices, and customer responses based on the findings from our customer research.



Figure 8 Evoenergy long-term demand forecast to 2045

Between 2030 and 2040, our modelling projects a continued and steady decline in gas usage, averaging around 8.1 per cent per year. This rate of decline is expected to gradually flatten toward the end of the decade, reflecting the earlier transition of customers who are most capable of electrifying. In line with the final decommissioning stages of the ACT Government's IEP, it has been assumed that any remaining customers in 2040 (primarily large, commercial, and industrial customers) will transition off the network in a linear fashion by 2045.

#### 3.4 Pipeline capacity and utilisation information

Rule 72(1)(d) of the NGR requires, to the extent practicable, a forecast of pipeline capacity and utilisation to be included as part of an access arrangement proposal. Capacity and utilisation information for a gas distribution network is not readily available or relatively meaningful, and there are a number of practical considerations governing why it is not possible to calculate capacity and utilisation for Evoenergy's gas distribution network.

For information on Evoenergy's pipeline capacity, see Attachment A: Background.

# 4. How we engaged on demand and what we heard from stakeholders

Over the past 18 months, we have engaged extensively with our community on our five-year gas plan through deliberative forums and additional channels to ensure we heard from a broad range of stakeholders about their values, concerns and priorities. Information on the consumers and stakeholders we engaged with on our five-year gas plan is provided in Attachment 1: Consumer and stakeholder engagement.

Our demand forecast was significantly shaped by input from the community, including direct engagement with residential and business customers through dedicated customer research (see Section 2.3).

#### 4.1 Community forum

The future of gas demand in the ACT featured prominently in discussions with our community forum, as it was the basis for introducing most key components of our five-year gas plan. A key focus was the demand uncertainty we face as the gas network owner in the ACT and surrounding parts of NSW. We explicitly engaged on our demand forecasts on three occasions, using various approaches including presenting demand scenarios and asking participants to consider how fast they would transition from gas. We also asked participants to consider the transition through the lens of different customer profiles presented using customer "personas" we developed for engagement.<sup>7</sup>

In an early session with our community forum, we sought to understand participants' expectations of future gas demand in the ACT. In early sessions with the Energy Regulatory Advisory Panel (ERAP), members recommended that we develop and use illustrative demand scenarios to support discussions with our community and other stakeholders.<sup>8</sup> ERAP members supported Evoenergy's approach of using customer research to inform the demand forecast and noted the importance of demonstrating the connection between prices and behaviours across different customer groups, as well as understanding the non-economic drivers for customers' electrification decisions.

We introduced three illustrative scenarios – fast, moderate and slow – to demonstrate possible scenarios over the period to 2045, and sought the community forum members' views on their own energy transition plans, as well as the transition plans of others in the community.<sup>9</sup> At the second community forum, participants provided responses to a Slido poll asking how quickly they thought they would transition from gas to electricity. Over one-third of participants told us that they were unsure about how quickly they would transition between gas and electricity. The timing of their transition was due to factors such as cost, the remaining life of existing appliances, and the type and ownership status of housing. When thinking about the community more broadly through the personas, participants identified issues such as a lack of information, time, and rental status (commercial and household) as barriers to individual customers' energy transition plans.<sup>10</sup>

<sup>&</sup>lt;sup>7</sup> We developed the scenarios and personas based on the ERAP's recommendation to consider impacts in terms of consumption and to contextualise our diverse customer base.

<sup>&</sup>lt;sup>8</sup> Appendix 1.5: ERAP meeting summaries, June 2025, p. 6.

<sup>&</sup>lt;sup>9</sup> At this early stage of engagement, our demand scenarios were based on high-level, hypothetical transition pathways derived using 2030 success measures from the ACT Government's IEP.

<sup>&</sup>lt;sup>10</sup> Appendix 1.2: Communication Link report of feedback from community forum sessions 1–10, June 2025, pp. 21–23.

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Based on feedback received at this session, we shaped future presentations and discussions with our stakeholders around a moderately-paced illustrative demand scenario, using our most recent actual consumption and customer numbers to 2023–24 as a starting point.<sup>11</sup> We used the moderately-paced demand scenario to illustrate depreciation, the TVM (consideration of price variability due to pace of demand), and expenditure outcomes. Across community forum sessions, members emphasised the importance of understanding the key drivers of gas demand and expressed concern about uncertainty surrounding the pace of the energy transition and its implications for customers and the network.<sup>12</sup>

In May 2025, we presented our demand forecast and key insights from our customer research. Community forum members welcomed our approach of more accurate and longer-term forecasting, describing it as transparent and grounded in evidence. The forum also highlighted the relatively higher degree of certainty of demand outcomes over shorter timeframes and the potential impacts of future government policy changes when forecasting over the longer term.<sup>13</sup> Our proposed approach to managing demand uncertainty, taking our community's feedback into consideration, is outlined in Attachment 9: Tariff variation mechanism.

#### 4.2 Energy Consumer Reference Council

As with our community forum, discussions on the future of gas demand were a dominant feature of our engagement with our Energy Consumer Reference Council (ECRC). Members were interested in how we would manage declining gas demand while fairly recovering costs from customers who remain on the gas network, including those facing financial hardship, renters, multi-occupant dwelling residents, and businesses that rely heavily on gas.<sup>14</sup>

When presented with our demand forecast in May 2025, members expressed their support for the innovative approach to deriving the forecast.<sup>15</sup> Some members also noted the challenges of forecasting customer behaviour using survey-based approaches, highlighting that actual behaviour may differ from stated intentions. The CIE report in Appendix 2.2 describes the measures we have taken to mitigate the risks of hypothetical bias in the survey results.

#### 4.3 Energy Matters Forum

Noting the direct engagement with many of our large customers through one-on-one interviews (Section 2.3), our large customer forum (Energy Matters) provided a more general opportunity for us to share information (including findings from our customer research) and hear feedback on our five-year gas plan. Our large customer forum members appreciated the updates we provided, and we heard that most members were exploring or planning their own electrification transition.

<sup>&</sup>lt;sup>11</sup> Assumptions under this scenario included disconnections and consumption falling in line with a hypothetical transition pathway based on the 2030 midpoint of the ACT Government's IEP measures of success (ACT Government, Developing the ACT's Integrated Energy Plan, Position Paper, August 2023). We chose to rely on this scenario, rather than a faster or slower transition, based on broad feedback from our stakeholders about their expectations for the electrification journey.

<sup>&</sup>lt;sup>12</sup> We used an illustrative moderately-paced demand scenario as the basis for forecasts in our draft five-year gas plan. <sup>13</sup> Appendix 1.2: Communication Link, Report of feedback from community forum sessions 1–10, June 2025, pp.

<sup>44-45.</sup> 

<sup>&</sup>lt;sup>14</sup> Appendix 1.3: ECRC engagement report, June 2025, p. 7.

<sup>&</sup>lt;sup>15</sup> Appendix 1.3: ECRC engagement report, June 2025.

However, our large customers also told us there was some uncertainty around the timing of their electrification transition due to cost and technical challenges.<sup>16</sup>

#### 4.4 ACT Government

The ACT Government's submission to our reference service proposal (RSP) reaffirmed that it is "committed to reaching net zero emissions by 2045, through legislated emission reduction targets".<sup>17</sup> The submission makes clear that the legislated targets are supported by the ACT Government's IEP, which "signals that the gas network will be progressively phased out by 2045".<sup>18</sup> It highlights existing and new policy actions under the IEP that will influence gas demand over the 2026–31 access arrangement period. These include financial incentives for electrification, regulations preventing new gas connections, programs to support commercial customers and multi-unit dwellings to electrify, and a commitment to transition government buildings off gas. While future policies are likely to accelerate the transition, "the ACT Government acknowledges that current policies will put downward pressure on gas demand over the coming period."<sup>19</sup> These factors were considered as part of Evoenergy's demand forecast (see Section 2.2).

#### 4.5 Retail users

We engaged directly with gas retailers through one-on-one meetings to discuss the demand forecasts. Retailers provided feedback indicating that Evoenergy's forecasts aligned with their own expectations and internal modelling for ACT gas demand.<sup>20</sup>

<sup>&</sup>lt;sup>16</sup> Appendix 1.4: Energy Matters Forum report, June 2025

<sup>&</sup>lt;sup>17</sup> ACT Government, Minister Rattenbury, Submission: Evoenergy reference service proposal, August 2024, p. 1, available on the <u>AER website</u>.

<sup>&</sup>lt;sup>18</sup> ACT Government, Minister Rattenbury, Submission: Evoenergy reference service proposal, August 2024, p. 2, available on the AER website.

<sup>&</sup>lt;sup>19</sup> ACT Government, Minister Rattenbury, Submission: Evoenergy reference service proposal, August 2024, p. 2, available on the AER website.

<sup>&</sup>lt;sup>20</sup> We engaged directly with ActewAGL, Origin Energy, Red Energy and Energy Australia three times each over the past 18 months as we developed our RSP, access arrangement and reference service agreement (RSA) – meetings occurred in May 2024, October 2024 and May 2025. An opportunity to meet and a copy of our RSA was provided to all retailers for their feedback.



## 5. Review of demand in the current period

This section summarises Evoenergy's gas demand and customer numbers in the 2021–26 access arrangement period and how we performed against our demand forecast for the period to date. Detailed data on Evoenergy's historical gas usage and customer numbers is also presented in Appendix 2.3: Gas demand forecast model.

#### 5.1 Gas demand and customer numbers in 2021–26

Rule 72(1)(a)(iii) of the NGR requires Evoenergy to provide information on the minimum, maximum and average demand for our network during the 2021–26 access arrangement period. This information is presented in Table 4 for the years we have data.

Table 4 Minimum, maximum and average daily load

Terajoules (TJ)	2021–22	2022–23	2023–24
Minimum daily load	5.90	6.17	6.44
Maximum daily load	60.88	53.56	53.74
Average daily load	22.59	22.19	19.04

The NGR also requires Evoenergy to provide customer numbers in total and by tariff class for the 2021–26 access arrangement period. This information is provided in Table 5.

Table 5	Customer numbers	by	tariff	class	for t	he 2021	1–26	access	arrangemen	t period

	2021–22	2022–23	2023–24	<b>2024–25</b> Forecast	<b>2025–26</b> Forecast
Volume tariff class	156,380	155,193	154,008	152,351	149,461
Demand tariff class	43	44	44	43	43
Total	156,423	155,237	154,052	152,394	149,504

Note: Customer numbers are expressed as an average over the year and reflect customers who were billed network charges during the year.

## 5.2 Review of forecasts for the 2021–26 access arrangement period

Evoenergy's demand forecast for the current 2021–26 access arrangement period was originally developed by the CIE. While the AER adopted a modified version of this forecast in its final determination, CIE's forecast provided the foundation for the forecast during the current 2021–26 access arrangement period.

As part of the 2026–31 forecast development, CIE reviewed the performance of the earlier forecast and identified several lessons that have been incorporated into the updated forecasting

approach. A detailed review of the forecasts for the 2021–26 access arrangement period is included in Section 2 of the CIE's report, contained in Appendix 2.1.

CIE found that actual customer numbers and gas usage have been higher than forecast in the first two years of the 2021–26 access arrangement period. However, gas usage dropped below forecast in 2023–24 (the most recent year for which data is available), and is expected to remain lower through 2024–25. CIE has identified several key drivers behind the variance, particularly in the earlier years of the period:

- **timing of ACT policy implementation:** there was a delay in the full implementation of the ACT Government's ban on new gas connections (by approximately one to two years), which likely affected customer switching behaviour
- colder than expected weather: effective degree days (EDD) from 2020–21 to 2022–23 were higher than forecast, likely contributing to elevated residential gas heating demand during this time
- **lower gas retail prices:** gas retail prices since mid-2021 have been lower than projected, reducing the price signal for customers to reduce usage or electrify
- wider economic and social impacts: factors such as inflationary pressures and rising interest rates may have delayed household decisions to switch away from gas. The COVID-19 pandemic (particularly increased time spent at home, and ongoing working-from-home arrangements) likely contributed to higher residential loads.

CIE also notes that the 2020 customer research used in the 2021–26 forecast may have overestimated the pace of electrification, with customers appearing overly optimistic about their appliance replacement timelines. While some of this variance is likely explained by the factors listed above, CIE has also taken steps to adopt a more rigorous and conservative approach to modelling customer behaviour for the 2026–31 demand forecast. This includes more robust customer research, more conservative assumptions about timing and uptake, and the use of well-established survey techniques to minimise hypothetical bias.

## **Glossary of terms and acronyms**

-	-
Term or acronym	Definition
access arrangement	Evoenergy's access arrangement
ACT	Australian Capital Territory
AER	Australian Energy Regulator
CIE	Centre for International Economics
Decommissioning	Decommissioning refers to the complete or partial shutting down and removal of the infrastructure of the gas network that is no longer in use.
Draft five-year gas plan	Evoenergy's publication of an initial position on its access arrangement proposal shaped by consumer and stakeholder engagement, for public consultation. The draft five-year gas plan was released on 3 March 2025 and is available on <u>Evoenergy's website</u> .
ECA	Energy Consumers Australia
ECRC	Energy Consumer Reference Council
EDD	Effective degree days
ERAP	Energy Regulatory Advisory Panel
Five-year gas plan	Evoenergy's gas plan for the 2026–31 access arrangement period
GJ	Gigajoule – unit of measurement of energy consumption
IEP	ACT Government's Integrated Energy Plan
NSW	New South Wales
Permanent disconnection	The permanent disconnection of a gas connection at the premises. A permanent disconnection involves the removal of the gas meter and the physical disconnection of any pipeline to the property. This is considered the safest option as it removes all risks associated with having a pressurised gas pipe, including the risk of gas leaks and excavation strikes.
RIN	Regulatory Information Notice
RSA	Reference Service Agreement
RSP	Reference Service Proposal

Temporary disconnection	A disconnection is a temporary closure of a gas connection on a premises. It involves disabling the meter equipment by introducing a plug, wad, meter lock or blanking device to the inlet of the meter, preventing gas flow through the meter. A temporary disconnection does not disconnect the pipeline to the premises, meaning the gas pipeline is still active and pressurised. A temporary disconnection can be reversed.
TJ	Terajoule – unit of measurement of energy consumption
The Rules or Rules	National Gas Rules
TVM	Tariff variation mechanism