Final decision

Jemena Gas Networks (NSW) access arrangement 2025 to 2030 (1 July 2025 to 30 June 2030)

Attachment 12 – Demand

May 2025



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Inquiries about this publication should be addressed to:

Australian Energy Regulator GPO Box 3131 Canberra ACT 2601 Email: <u>aeringuiry@aer.gov.au</u> Tel: 1300 585 165

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1	May 2025	19

List of attachments

This attachment forms part of our final decision on the access arrangement that will apply to Jemena Gas Networks' (NSW) for the 2025–30 access arrangement period. It should be read with all other parts of this final decision.

For some issues that had draft decision attachments, and which were settled at the draft decision stage or required only minor updates, the reasons in the draft decision attachments and, where relevant, in the final decision Overview set out our reasons for our final decision on the issue. In these circumstances, we have not prepared all attachments, and our draft decision reasons form part of this final decision. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision.

The Final decision includes the following documents:

Overview

Attachment 2 - Capital base

Attachment 4 - Regulatory depreciation

- Attachment 5 Capital expenditure
- Attachment 6 Operating expenditure
- Attachment 7 Corporate income tax
- Attachment 9 Reference tariff setting
- Attachment 10 Reference tariff variation mechanism
- Attachment 12 Demand
- Attachment 13 Capital expenditure sharing scheme

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12 Demand

Demand is an important input into the derivation of JGN's reference tariffs. This is because tariffs are initially set by dividing total revenue by forecast demand though tariffs can be varied if volumes are outside a certain bound.¹ Demand also affects the number of new customer connections (which impacts the capital expenditure forecast) and output growth (which impacts the operating expenditure forecast).

12.1 Final decision

Our final decision is to not accept JGN's demand forecast for the 2025–30 period. We do not consider JGN's proposed demand forecast was arrived at on a reasonable basis, or that it represents the best forecast possible in the circumstances, as required by rule 74(2) of the National Gas Rules (NGR). We have included an alternative forecast that we consider meets the requirements of the NGR. Table 12.1 shows our final decision for residential and commercial demand, while Table 12.2 shows our final decision for industrial demand.

Our alternative forecast differs from JGN's proposal by having:

- for residential customers, a higher number of new connections and a higher forecast usage per connection
- for commercial/small business customers, a slower decline in usage per connection, consistent with the historical trend, and an increased number of customers by correcting an error in the modelling (which double counted the net decline in connections).

We have accepted JGN's demand forecast for industrial customers.

¹ The process for setting initial reference tariffs (prices) is set out in Attachment 9 of this final decision, while the process for varying tariffs is set out in Attachment 10. Of note, we have approved a hybrid tariff variation mechanism, in place of the weighed average price cap used in previous access arrangement decisions. In previous decisions, prices were set at the commencement of the period by dividing total revenue by demand, with some limited scope to vary tariffs. The hybrid mechanism allows for reference tariffs to be varied if volumes are 5% higher or lower than approved, to share the under or over recovery of revenue between JGN and its customers. See Attachment 10 of the draft decision for a detailed explanation of this process.

	2025-26	2026-27	2027-28	2028-29	2029-30	Change over period
Residential connections	1,520,901	1,528,734	1,533,177	1,531,875	1,523,482	0.17%
Residential demand (TJ)	26,877	26,859	26,695	26,461	26,110	-2.85%
Residential demand per customer (GJ)	17.67	17.57	17.41	17.27	17.14	-3.02%
Commercial connections	34,268	34,141	33,946	33,672	33,315	-2.78%
Commercial demand (TJ)	12,859	12,805	12,567	12,408	12,131	-5.66%
Commercial demand per customer (GJ)	375.25	375.07	370.20	368.51	364.13	-2.96%

Table 12.1 Final decision forecast for residential and commercial customers

Source: ACIL Allen, Review of Jemena Gas Network's revised demand forecasts, 14 April 2025; AER analysis

Table 12.2 Final decision forecast for industrial customers

	2025-26	2026-27	2027-28	2028-29	2029-30	Change over period
Annual Contract Quantity (ACQ) (TJ)	42,277	42,611	42,087	40,502	41,173	-2.61
Maximum Daily Quantity (MDQ) (TJ)	222	223	221	212	216	-2.70

Source: JGN, JGN - Attachment 6.1 - Revised 2025-30 Access Arrangement Proposal - Demand forecast, January 2025.

12.2 JGN's proposal

JGN engaged CORE Energy & Resources (CORE) to prepare demand forecasts for its network for the 2025–30 period. It also engaged Frontier Economics (Frontier) to complete an independent review of CORE's initial and revised residential and commercial forecast, and the AER's forecast from the draft decision. A summary of the key aspects of JGN's demand forecasts is set out in Table 12.3 (residential and commercial) and Table 12.4 (industrial).

	2025-26	2026-27	2027-28	2028-29	2029-30	Change over period
Residential connections	1,517,682	1,523,643	1,524,521	1,519,657	1,509,093	-0.6%
Residential demand (TJ)	26,504	26,462	26,233	25,938	25,552	-3.6%
Residential demand per customer (GJ)	17.46	17.37	17.21	17.07	16.93	-3.0%
Commercial connections	34,268	34,141	33,837	33,288	32,575	-4.9%
Commercial demand (TJ)	12,742	12,505	12,177	11,739	11,201	-12.1%
Commercial demand per customer (GJ)	371.85	366.27	359.86	352.67	343.85	-7.5%

Table 12.3 JGN's demand forecast for residential and commercial customers

Source: JGN, JGN - Attachment 6.1 - Revised 2025-30 Access Arrangement Proposal - Demand forecast, January 2025.

Table 12.4 JGN's dema	nd forecast for	[·] industrial	customers
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	2025-26	2026-27	2027-28	2028-29	2029-30	Change over period
Annual Contract Quantity (ACQ) (TJ)	42,277	42,611	42,087	40,502	41,173	-2.6%
Maximum Daily Quantity (MDQ) (TJ)	222	223	221	212	216	-2.6%

Source: JGN, JGN - Attachment 6.1 - Revised 2025-30 Access Arrangement Proposal - Demand forecast, January 2025, p. 1.

JGN updated its forecast for residential customers to include up to date dwelling construction data from the HIA. JGN forecast a fall in the number of new customers connecting of 15,910 from its initial proposal. JGN forecast a fall in gas use per customer for each year of the access arrangement period, which was close to the rate of change the AER included in its draft decision. JGN also updated the starting point for its demand forecast, based on the most recently available weather corrected demand data. JGN's new starting point is 4.3% lower than the figure used in its initial proposal and the AER's draft decision. This reflects a higher-than-expected fall in demand for 2023/24.

For small business customers, JGN considers the lower forecast in its revised proposal compared with the draft decision is due to different assumptions of electrification.²

For industrial customers, JGN has reduced its forecast due to the upcoming termination of activity by a large customer that was not known at the time of the initial proposal.³ JGN has also adjusted its base forecast to address expected structural changes in future consumption, and provided further information on how CORE developed this forecast.

12.2.1 Stakeholder submissions

We have received one submission on demand, from the Consumer Challenge Panel, subpanel 31 (CCP31). CCP31 note projections from ACIL Allen and Frontier using most recent data are more closely aligned than earlier projections. It notes that this owes to actual 2023-24 demand being lower than JGN forecast, which explains why they propose lowering of the projection curves, to start with actual 2023-24 demand. CCP31 is unsure of the likelihood that the 2023-24 demand results reflect a trend decrease in demand or one-off factors. CCP31 expects our final decision will incorporate information from the 2025 GSOO.⁴

12.3Assessment approach

Under the NGR, JGN must submit, as part of its access arrangement information:

- usage of the pipeline over the earlier access arrangement period showing minimum, maximum and average demand; and customer numbers in total and by tariff class⁵
- to the extent that it is practicable to forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period, a forecast of pipeline capacity and utilisation of pipeline capacity over that period and the basis on which the forecast has been derived.⁶

The NGR also require that forecasts and estimates:7

- be supported by a statement of the basis of the forecast or estimate
- are arrived at on a reasonable basis
- represent the best forecast or estimate possible in the circumstances.

There are two important considerations in assessing whether these are achieved:

- the appropriateness of the forecasting methodology this involves consideration of how the demand forecast has been developed
- whether or not relevant factors have been considered in developing the demand forecasts.

² JGN, *JGN - RP - Att 6.1 - Demand forecast - 20250115*, January 2025, p. vi.

³ JGN, *JGN - RP - Att 6.1 - Demand forecast - 20250115*, January 2025, p. 21.

⁴ CCP31, CCP31 - Advice to the AER - JGN 2025-30 revised access arrangement and draft decision -February 2025, February 2025.

⁵ NGR, Rule 72(1)(a)(iii)

⁶ NGR Rule 72(1)(d)

⁷ NGR Rule 74

To determine whether JGN's proposed demand forecasts were arrived at on a reasonable basis and are the best possible forecasts in the circumstances, we reviewed:

- the information provided by JGN
- the data inputs used to implement the forecasting methodology.

In making our final decision, we had regard to:

- information provided by JGN as part of its proposed access arrangement
- the analysis of our consultant ACIL Allen
- stakeholder submissions.

12.3.1 Interrelationships

We have considered the relevant interrelationships between the different components of JGN's access arrangement as part of our analysis.

Several interrelationships exist. This includes the effect of forecast demand on the efficient amount of capex, opex, depreciation and tariffs in the 2025–30 period. In particular, the demand forecasts impact:

- residential and commercial connections capex the number of new connections drives the volume of connections capex
- opex the forecast total connections volume and total consumption (output growth) are used to determine whether additional opex is required to service the network. Total consumption is also used to forecast the volume of unaccounted for gas likely on JGN's network, which is funded through the opex building block
- reference tariffs prices are based on forecast consumption (demand) per connection. Initial tariffs are determined by dividing the service provider's efficient cost (revenue) by quantity of service delivered (demand per connection). This means that an increase in demand per connection will reduce the tariff price (provided revenue stays the same).⁸
- regulatory depreciation demand forecasts are an input in our decision on accelerated depreciation. Our decision on accelerated depreciation considers, among other things, demand within the access arrangement period, and the longer-term trajectory of demand on the network. See Attachment 4 – Regulatory depreciation section 4.4.1 for our final decision on accelerated depreciation.⁹

12.4 Reasons for final decision

Rule 74(2) of the NGR requires forecasts in access arrangement proposals to be arrived at on a reasonable basis, and to represent the best forecast possible in the circumstances.

JGN's forecasts are broadly grouped into Volume (Tariff V) and Demand (Tariff D) customers. Tariff V customers are residential and commercial (small business) customers

⁸ However, JGN's tariff variation mechanism allows for reference tariffs to be varied if volumes are 5% above or below the forecast. See Attachment 10 of the draft decision for a detailed explanation of this mechanism.

⁹ AER, AER - Final decision - JGN access arrangement 2025–30 - Attachment 4 - Regulatory depreciation -May 2025, May 2025.

who consume less than 10 Terajoules (TJs) of gas in a year. Tariff D are large industrial customers who consume more than 10 TJs per year. We consider JGN's forecasts of Tariff V and Tariff D demand separately below.

12.4.1 Tariff V demand forecasts – residential and commercial customers

JGN (through its consultant, CORE) has developed forecasts of new connections, disconnections and gas usage per customer for the 2025-30 access arrangement period.

JGN has forecast:

- a decline in the number of new customers connecting to the gas network
- an increase in the number of customers disconnecting from the network
- a fall in the amount of gas consumed by each customer.

In past gas access arrangement decisions, demand forecasts were largely based on observed historical trend and other economic data. New connections were based on the amount of economic and construction activity expected within the network's service area, and the likelihood that a new dwelling would connect was based on historical trends. The number of customer disconnections and gas consumption per customer were based on historically observed trends, along with changes in energy efficiency.¹⁰

JGN's forecast is an adjustment of this process, reflecting increasing uncertainty over the use of gas networks, centring on efforts to decarbonise the energy sector. The forecast aims to capture factors driving falls in demand that are larger than can be explained by historical trend analysis. These include the impact of decarbonisation policies, changes in construction standards, changes to the amount customers pay upfront for connections, government subsidies for appliance switching, customer sentiment towards gas and possible future government gas policy.

We engaged ACIL Allen to provide expert advice on JGN's revised forecast.¹¹ We sought advice on whether JGN's forecasts for residential and commercial demand were reasonable, and represented the best forecast possible in the circumstances, as required by the NGR.¹² We also sought ACIL Allen's advice on a more reasonable alternative in the event it found deficiencies in JGN's revised forecast. We had regard to ACIL Allen's advice when formulating our alternate estimate of demand. We consider forecasts for new customer connections, customer disconnections, and usage per customer below.

12.4.1.1 New customer connections

JGN has forecast approximately 66,981 new residential connections over the 2025-30 access arrangement period, a fall of 46% from the current period. In the current period, JGN estimates that it has connected (or will connect) 124,919 new residential customers. This is also 15,910 lower than its forecast in the initial proposal, which was accepted by the AER.

¹⁰ The trend was based on historical weather normalised usage. That is, historical data was adjusted for warmer or colder than typical conditions that affect the use of gas.

¹¹ ACIL Allen also provided expert advice on the initial proposal. See: ACIL Allen, *ACIL Allen - JGN demand review report - November 2024*, November 2024.

¹² Rule 74(2) of the NGR requires forecasts in access arrangement proposals to be arrived at on a reasonable basis, and to represent the best forecast possible in the circumstances.

JGN submits that the lower forecast is due to using the most recent HIA data, which includes lower dwelling commencements across the access arrangement period.

Meanwhile, JGN forecasts that commercial connections will be slightly lower, falling from an average of 631 a year in the current period to 528 a year in the upcoming period.

Figure 12.1 shows the annual number of connections for residential customers from 2009 to 2023 and the forecast from 2024 to 2030. This chart shows that the total number of connections grew year on year until 2018, after which they have fallen year on year, with a slight increase expected in 2024.



Figure 12.1 JGN's actual and forecast new gross residential connections and AER final decision - 2009 to 2030

Source: AER, Analysis. JGN, JGN - CORE Energy - RP - Att 6.3M - NSW Demand Forecast Model - 20250107 – Confidential, January 2025.

In its report on the draft decision, ACIL Allen noted that the proportion of new dwellings connecting to the network has been in decline over the long-run, and that JGN's forecast was a continuation of this trend. The AER accepted JGN's approach in the draft decision.

ACIL Allen identified that the reduction in new connections forecast in the revised proposal was higher than can be explained by applying the latest HIA dwelling commencement data. That is, the fall in new connections was disproportionate to the fall in new dwelling activity. The AER notes that this represents a change in the expected penetration rate (i.e. the proportion of new dwellings connecting to gas) from the expected penetration rate that was considered in the draft decision. JGN noted that the difference between CORE's forecast and ACIL Allen's alternative was that CORE had incorporated lag factors beyond one year to account for observed market conditions.¹³

¹³ JGN, response to IR034 demand model calculations and connections capex forecast, April 2024, p. 3.

When the penetration rate from the initial proposal is applied to the latest HIA data, ACIL Allen advice is that 12,318 additional new connections would be included in the demand forecast.

We agree with ACIL Allen's advice on residential connections, which applies a penetration rate consistent with the draft decision. We remain of the view that the penetration rate in our draft decision is reasonable.¹⁴ We consider new residential connections will fall, even in the absence of an outright ban on new connections in the access arrangement period.

JGN has argued that there will be an additional lag period between when dwelling construction commences and when gas is connected to that dwelling. However, it is not clear that any factors have changed in the latest data to suggest either that construction processes will be slower than was the case at the time of the initial proposal, or that there will be a significantly delay in connecting gas to a completed dwelling. We do not consider a compelling case was made in support of extending the lag for new dwelling constructions from the approach taken in the initial proposal and draft decision. Consequently, we consider that the penetration rate and connection lag in our draft decision remains a better forecast in the circumstances.

Increasing the number of new connections will also increase JGN's capex forecast by \$44.1 million gross connections capex, offset by \$2.7 million in customer contributions. Higer capex would exert upward pressure on JGN's price path. However, more connections leads to costs being spread over a larger customer base, which exerts downward pressure on JGN's price path. Modelling conducted by the AER indicates that, while this change will increase the capex forecast, this will be fully offset by the increase in the demand forecast. The net effect on JGN's residential customers will be slightly lower gas bills than if the adjustment were not made.

For commercial connections, ACIL Allen noted that there was an average of 700 per year from 2018-2024. ACIL Allen accepts that the average connections of 538 a year over the forecast period is reasonable. JGN's underlying analysis is consistent with its reasoning from its initial proposal, which the AER considered was reasonable.¹⁵

We also consider JGN's forecast of new commercial connections was arrived at on a reasonable basis, and represents the best forecast in the circumstances. We note that JGN's total customer forecast for commercial customers contained an error. Once the error was corrected, JGN's forecast of commercial customers is 932 higher by the end of the access arrangement period. JGN confirmed this error in a response to an information request.¹⁶ Our final decision corrects the error, resulting in a higher number of commercial customers in the forecast.

¹⁴ In the draft decision, we considered the fall in the penetration rate proposed by JGN was reasonable as it was consistent with a long-run downward trend in new customers connecting, driven by updated building standards favouring all-electric builds, the increasing cost competitiveness of choosing all-electric appliances for a new build, and the greater share of multi-dwelling constructions, which require less energy to heat and cool, and are more suited to electric appliances.

¹⁵ ACIL Allen, Review of Jemena Gas Network's revised demand forecasts, 14 April 2025, p. 13; CORE, JGN -CORE Energy - RP - Att 6.2 - Demand Forecast Report – 20250107, January 2025, p. 28.

¹⁶ JGN, response to IR034 demand model calculations and connections capex forecast, April 2024.

12.4.1.2 Customer disconnections

In its initial proposal, JGN forecast approximately 120,000 residential disconnections over the 2025-30 access arrangement period, compared with around 29,000 in the current period.

We did not accept JGN's residential disconnection forecast in the draft decision. We considered a forecast of around 78,000 disconnections was a better forecast in the circumstances. This view was assisted by expert advice from ACIL Allen, which indicated that residential customers were unlikely to electrify their appliances at the rate required to support a four-fold increase in disconnections. ACIL Allen modelled the likely rate of electrification on JGN's network, and considered 78,000 disconnections was more reasonable in the circumstances. That is, disconnections were likely to increase substantially from historical rates, but not to the same extent as forecast by JGN.

In its revised proposal, JGN has forecast approximately 78,000 residential disconnections over the access arrangement period. This is in line with our draft decision. We consider JGN's forecast disconnection volume for residential customers is reasonable and based on sound analysis. We accept there is evidence to support an increase in disconnection volumes, particularly as electrification options become more cost competitive with gas. This is also supported by analysis conducted by ACIL Allen, both in its initial advice and updated advice. We accept JGN's forecast disconnections and have included it in our final decision.

JGN's forecast for commercial/small business disconnections is largely unchanged from the draft decision. We consider JGN's forecast is reasonable, and in line with historical rates of disconnection. Consequently, we have included JGN's forecast in our final decision.

12.4.1.3 Starting point for residential demand forecast

JGN has updated its demand forecast to include the latest weather corrected actual demand from 2023/24. In the initial proposal, residential demand per user in 2023/24 had been forecast at 19.05 GJs per customer, whereas actual weather corrected demand was 17.97 GJs per customer, or 6% lower than forecast. This observation, in turn, forms the starting point for JGN's demand forecast, and results in a lower forecast of demand than JGN included in its initial proposal.

We sought ACIL Allen's advice on the appropriate starting point for the demand forecast.

ACIL Allen considered whether using the latest observation as the starting point would result in a better forecast than adopting a trend based on linear regression of JGN's historical demand. It is important to recognise that the decline in demand per connection in 2024 may be driven by factors other than a structural shift away from gas towards electric appliances. ACIL Allen concluded that there are likely to be structural effects (e.g. appliance switching) driving the lower value in 2023/24, but there are also transitory effects (e.g. cost of living pressures affecting customer usage). ACIL Allen considers using an average of the linear regression trend and the latest available observation would provide a better starting point. It considered this would account for potential structural changes, while giving less weight to the transitory changes in the data. This resulted in ACIL Allen proposing a higher forecast of demand per connection than proposed by JGN.¹⁷ In response to this, JGN submitted that

¹⁷ ACIL Allen, *Review of Jemena Gas Network's revised demand forecasts*, 14 April 2025, pp. 6-7.

using actuals, rather than arbitrarily averaging actuals with the trend line, provides a more accurate representation of current market dynamics. The approach of using actuals is also consistent with prior forecasts approved by the AER.¹⁸

We agree with ACIL Allen's view that adopting an average of the linear regression trend and the available observations of actual demand from 2023/24 is a better starting point than relying solely on actual 2023/24 demand, and is reasonable in the circumstances. In particular, we consider this approach takes better account of the impact of the transitory effects in 2023/24, while also giving significant weight to potential structural changes embedded in the 2023/24 demand data. We consider this approach is based on a more robust identification both of longer-term trends and more recent structural changes. Consequently, we have adopted the higher starting point in our final decision, which has resulted in a higher forecast of demand per customer than proposed by JGN.

12.4.1.4 Gas consumption per customer – residential

JGN has forecast residential demand per customer to fall by 1.1% per year during the 2025-30 period. This compares with an average decline over the last 14 years of 1%. JGN's initial proposal forecast a faster fall in residential demand per customer of 1.6% per year.

In our draft decision, we considered a decline of around 1% a year was a more reasonable forecast in the circumstances. In reaching our draft decision, we considered advice from ACIL Allen. ACIL Allen considered there was some validity in JGN's forecast of an increasing decline in usage per customer, particularly that improvements in energy efficiency and greater appliance switching may drive lower demand. However, JGN had proposed that the decline in usage would greatly accelerate in the last 3 years of the access arrangement period. ACIL Allen did not consider JGN had put forward analysis and information to support the accelerating decline in usage in the final 3 years of the access arrangement.¹⁹ ACIL Allen prepared an alternative forecast based on modelling of regression analysis of historical usage, and modified for the impact of price differentials between electricity and gas.²⁰ We accepted that this represented a better forecast than proposed by JGN, and adopted it in our draft decision.

We consider JGN's updated assumptions around usage per customer are more in line with our draft decision. We have adopted JGN's updated assumption from the revised proposal in our final decision regarding the trajectory of demand. However, due to the higher starting point described in the previous section, our final decision in each year of the access arrangement period is higher than proposed by JGN. Figure 12.2 compares the initial and revised residential demand per connection forecast from JGN's consultant CORE to our final decision, and historical demand per connection.

¹⁸ JGN, response to IR034 demand model calculations and connections capex forecast, April 2024, p. 3.

¹⁹ ACIL Allen, *Review of Jemena Gas Network's demand forecasts*, November 2024, p. 7.

²⁰ ACIL Allen, *Review of Jemena Gas Network's demand forecasts*, November 2024, pp. 18, 26.





Source: AER analysis. ACIL Allen, Review of Jemena Gas Network's revised demand forecasts, April 2025; CORE, JGN - CORE Energy - RP - Att 6.2 - Demand Forecast Report – 20250107, January 2025; CORE, JGN - Core Energy - Att 8.2 - Demand Forecast Report - April 2024, April 2024.

12.4.1.5 Gas consumption per customer – commercial

JGN has forecast commercial demand per customer to fall by 1.8% per year during the 2025-30 period. This compares with an average increase over the last 14 years of 0.3% per year. JGN's initial proposal forecast a faster fall in commercial demand per customer of 3.2% per year.

In its revised proposal, JGN (via its consultant CORE) revisited its initial forecast upwards in response to our draft decision. Between 2025 and 2030, JGN's revised small business demand per connection forecast shows an annualised rate of decline of 1.8% per annum compared to its original forecast which was projected to decline at an annualised rate of 3.2% per annum over the same period.

Separate to CORE's revised forecast, on which JGN based its small commercial demand forecast, JGN engaged Frontier Economics to review the AER's draft decision of JGN's demand forecasts. As part of this review, Frontier reviewed and compared our draft decision alternative forecasts to CORE's and provided a set of alternative forecasts. JGN's revised proposal for commercial demand per customer is based on CORE's revised forecast.²¹

²¹ Frontier Economics, JGN - Frontier Economics - RP - Att 6.7 - Demand technical note - 20250109 – Public, January 2025, p. 20.

Figure 12.3 below shows CORE's original and revised small business demand per connection forecast to 2030, as well as Frontier's preferred forecast.



Figure 12.3 Small business demand per connection, CORE Energy, original versus revised

Source: AER analysis. ACIL Allen, Review of Jemena Gas Network's revised demand forecasts, April 2025; CORE, JGN - CORE Energy - RP - Att 6.2 - Demand Forecast Report – 20250107, January 2025; CORE, JGN - Core Energy - Att 8.2 - Demand Forecast Report - April 2024, April 2024; Frontier Economics, *JGN - Frontier Economics - RP - Att 6.7 - Demand technical note - 20250109 – Public*, January 2025.

ACIL Allen observed that the historical trend in demand shows a strong uptrend between 2010 and 2016, before stabilising between 2017 and 2019. From 2020 to 2022, the data is affected by the Covid pandemic. ACIL Allen is of the view that the historical decline in small business usage per connection after 2018 supports Frontier's trajectory over that of CORE's revised forecast. Between 2019 and 2024, the annualised rate of decline in demand per connection was 0.88% per annum. If 2018 is taken as the starting point, the rate of decline falls to 0.31%. ACIL considers these rates of historical decline are more in line with Frontier's proposed forecast trajectory rather than CORE's. ACIL Allen considers the Frontier Economics forecasts are more plausible than CORE's when considering the recent historical behaviour of small business demand per connection.²² In response, JGN noted that the Frontier model was based on simplistic assumptions, and did not include post model adjustments to account for downward factors such as electrification.²³

²² ACIL Allen, *Review of Jemena Gas Network's revised demand forecasts*, 14 April 2025, p. 12

²³ JGN, response to IR034 demand model calculations and connections capex forecast, April 2024, p. 2.

We agree with ACIL Allen's view that Frontier's trajectory represents a better forecast than JGN's and is reasonable in the circumstances. While we note JGN's concern that the Frontier analysis did not take into account possible downward trends in usage, we also note that demand per connection in the commercial/small business sector has been more stable over time than residential demand, which supports the proposition that any decline in demand is likely to be more gradual, and appears less sensitive to unmodelled factors, than residential demand. We also note that there has not been a dramatic fall in the latest data of the kind that has been seen in residential demand. We accept that there is likely to be a fall in demand over the access arrangement period, but consider that this will be more gradual than JGN's forecast, in line with recent observations. The trajectory of Frontier's model best reflects recent changes in demand for this sector. Consequently, we accept ACIL Allen's recommendation that Frontier's demand trajectory be adopted for commercial demand per user. This has resulted in a higher forecast of demand per customer than proposed by JGN.

12.4.2 Tariff D demand forecast

We are satisfied that JGN's forecasts for Tariff D (commercial and industrial) demand represents the best forecast under the circumstances.

Demand for industrial customers is forecast on:

- the maximum amount of capacity that industrial customers are expected to require on a day (MDQ)
- the total amount of gas industrial customers are expected to consume in a year (ACQ).

To support the forecasting methodology, JGN and CORE conducted a survey of its industrial customers to better understand their future requirements.²⁴

Overall, the surveys pointed to an increase in ACQ (and related MDQ) across the period. These results were then adjusted downwards to account for new initiatives and energy efficiency.²⁵ On this basis, JGN is forecasting a decline in MDQ over the 2025–30 access arrangement period, and a decrease in customer numbers.

In the draft decision, we noted that this analysis was conducted outside of JGN's demand forecasting model, and the basis for the extent of the departure was unclear. On this basis, we did not accept JGN's industrial demand forecast, and invited it to provide further information in the revised proposal.

JGN, through its consultant CORE, provided detailed information on the initiatives being undertaken in various industries that it based its demand adjustments on.²⁶ It also revised its analysis and reduced the annual fall in volumes from 2.15% in the initial proposal to 1.76% in the revised proposal. Initiatives include changes in technology and approach to space heating in the steel, food processing, brick and glass manufacture, paper and packaging and large users such as hospitals and schools. CORE also accounted for the exit of a large

²⁴ CORE, JGN - CORE Energy - RP - Att 6.2 - Demand Forecast Report – 20250107, January 2025, p. 32.

²⁵ CORE, *JGN* - CORE Energy - *RP* - Att 6.2 - Demand Forecast Report – 20250107, January 2025, p. 33.

²⁶ CORE, JGN - CORE Energy - RP - Att 6.2 - Demand Forecast Report – 20250107, January 2025, pp. 34-35.

customer during the period that was not known in the initial proposal and removed this customer from its survey data.

We consider JGN has addressed the concerns raised in the draft decision, and its forecast of industrial demand has been arrived at on a reasonable basis.

12.4.3 Minimum, maximum and average demand

The NGR requires that access arrangement information includes minimum, maximum and average demand for each receipt or delivery point for the earlier access arrangement period.²⁷ JGN's access arrangement information and its response to our regulatory information notice (RIN) satisfy these requirements.

12.4.4 Forecast pipeline capacity and utilisation

The NGR requires that, to the extent it is practicable to forecast pipeline capacity over the access arrangement period, the access arrangement information should include forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period.²⁸

JGN did not provide this information in its access arrangement information. However, JGN's distribution network is a meshed network made up of interconnected pipes, meaning that calculating forecast capacity and utilisation is not practical.

12.5 Revisions

We require the following revisions to make the access arrangement proposal acceptable as set out in Table 12.5.

Table 12.5 JGN's demand revisions

Revision	Amendment
Revision 12.1	Make all necessary amendments to its tariffs for Tariff V customers to reflect the AER's substitute demand forecasts set out in this Attachment 12.

²⁷ NGR, r. 72(1)(a)(iii)(A).

²⁸ NGR, r. 72(1)(d).

Glossary

Term	Definition
ACQ	Annual Contract Quantity
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Capex	capital expenditure
CCP31	Consumer Challenge Panel, sub-panel 31
CORE	CORE Energy & Resources
JGN	Jemena Gas Networks
MDQ	Maximum Daily Quantity
NGR	National Gas Rules
NSP	Network Service Provider
NSW	New South Wales
opex	operating expenditure
RIN	regulatory information notice