



30 August 2024

To: Australian Energy Regulator (AER)

Re: Jemena Gas Networks (NSW) – Access arrangement 2025–30

Thanks for the opportunity for the Institute for Energy Economics and Financial Analysis (IEEFA) to present its submission to the AER's consultation on the proposal for *Jemena Gas Networks (NSW) – Access arrangement 2025-30*.

IEEFA is an energy finance think tank that examines issues related to energy markets, trends, and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

Regarding Jemena's proposal overall, IEEFA offers the following comments:

- The context of domestic gas consumption in Australia, and in New South Wales (NSW), is rapidly changing.
- The AER's decision on Jemena's gas network access arrangement ought to support a managed decline in demand across Jemena's network, while removing incentives for the network to grow.
- Key developments underway in NSW will affect the outlook for Jemena's demand:
 - The inclusion of heat pump hot water systems in NSW's [Energy Savings Scheme](#), which has been followed by rapid large-scale uptake ([2.5% of dwellings in NSW](#) installed a heat pump hot water system in 2023 alone).
 - Revisions to [NSW's BASIX building](#) code that encourage all-electric dwellings as a low-emissions solution.
 - The NSW government's [commitment to develop a 'Gas Roadmap'](#) to provide clarity on gas decarbonisation and support household and business electrification.
- IEEFA has previously recommended the NSW government develop a [plan to manage the phase-down of its gas distribution network](#), and engage with the AER to ensure Jemena's 2025-30 access arrangement is aligned to this plan.
- Similarly, IEEFA strongly recommends the AER engage with the NSW government when making its decision on Jemena's 2025-30 access arrangement.

Our comments on specific aspects of Jemena's proposal are listed in the pages that follow.

Regards

Jay Gordon – Energy Finance Analyst, Australian Electricity



‘Renewable gas’ expenditure

The AER has previously found ‘renewable gas’ expenditure proposals in Victoria were [non-conforming with respect to the National Gas Rules \(NGR\)](#). Since this decision, the National Gas Objective (NGO) has been amended to incorporate an emission reduction objective – specifically, to encourage investments that contribute to state or federal emission reduction policies.

Jemena has argued that expenditure supporting ‘renewable gas’ should be included in its regulated revenue for 2025-30, as it is [consistent with the NGO](#).

However, IEEFA does not consider that the use of ‘renewable gas’ in Jemena’s gas network would be able to support NSW or Australia’s emission reduction objectives, for the following reasons:

- Jemena’s proposal would see only [8.3% of gas in its network](#) displaced by hydrogen or biomethane by 2030. This falls well below NSW and Australia’s whole-of-economy legislated emissions targets (50% and 43% reduction by 2030 respectively on 2005 levels).
- For Jemena’s plan to be consistent with whole-of-economy emissions targets, other sectors such as transport or heavy industry would need to decarbonise at a faster rate, to compensate for delayed reductions among distribution-connected gas users (predominantly residential customers).
- By contrast, residential electrification is one [of the most cost-effective emission reduction solutions available today](#).
- Pursuing a ‘renewable gas’ pathway to decarbonise gas consumption in Jemena’s network could therefore considerably increase the cost of meeting NSW or Australia’s emissions targets. It could also inhibit the potential to achieve those targets by slowing the uptake of residential electrification.

Furthermore, it would be very difficult for Jemena to increase the blends of ‘renewable gas’ across its network to meaningful levels:

- Domestic gas appliances in Australia are [not rated to handle blends of more than about 3% hydrogen by energy](#) (10% by volume). All customers on Jemena’s network would need to upgrade their appliances to hydrogen-ready alternatives to exceed this blend.
- [Research commissioned by Energy Networks Australia](#) found that bioenergy feedstocks in NSW were only adequate to displace 15% of the fossil gas in NSW’s distribution networks, unless feedstocks from agricultural waste streams were used. These feedstocks would be much harder to collect, aggregate and deliver to end users.
- Biomethane could be appropriate for a small number of ‘hard-to-electrify’ dwellings. However, more work is needed to determine the size of this cohort, and the most economical energy solution for these end users.

Finally, introducing [‘renewable gas’ blends into gas networks is not generally in the financial interests of energy consumers](#). Electricity is a far more cost-competitive option (when efficient appliances are used). Consumers who choose to remain on the gas network expecting a transition to ‘renewable gas’ may be exposed to greater stranded asset risk.



Accelerated depreciation

Jemena's proposed \$300 million accelerated depreciation allowance represents a transfer of stranded asset risks from Jemena to its consumers, at a time when there is increasing uncertainty on the pace of gas demand reduction. In IEEFA's view, this transfer of risk, and the approval of accelerated depreciation as a whole, would not be justified.

[IEEFA's analysis](#) has found that exposure to demand risk has been one-sided since at least 2014, disadvantaging customers while benefiting regulated gas networks. In Jemena's case, this led to 'revenue over-recovery' of more than \$490 million since 2014 after adjusting for remittal decisions – far more than any other network.

Tariff variation mechanism

Jemena's proposal to switch to a hybrid price/revenue cap, rather than a pure price cap, also represents a transfer of stranded asset risks from the network to its consumers. IEEFA has previously recommended that a [price cap approach be maintained](#) for gas distribution networks, as it would be inequitable to change this allocation of risk at a point in time when the existing allocation has resulted in [largely one-sided benefits for networks](#)

Approach to new connection costs

IEEFA supports Jemena's proposal to require new customers to fully cover the cost of connection to the gas network. It is unlikely that any new gas network assets will remain operational over an economic lifetime of decades, as is normally assumed. Therefore, this approach would create a more accurate price signal for new consumers, and would prevent the socialisation of further stranded asset risks among existing consumers.

However, IEEFA notes that, given the [cost-competitiveness of efficient electric appliances](#), it is increasingly against the interests of residential customers to connect to the gas network. Current regulations obligate Jemena to connect new customers to its network when requested. However, other jurisdictions [such as Victoria](#) have already acted to remove similar obligations.

[Several local governments in NSW](#) have initiated plans to prevent new developments from connecting to the gas network – and IEEFA has recommended the NSW government [legislate all-electric new developments](#) at a state level.

This, combined with the pending development of a NSW Gas Roadmap, implies considerable policy uncertainty as to how new connections should be treated. The AER should engage with the NSW government as a matter of priority to seek clarity on its position on growth of the gas network.



Approach to abolishment costs

Total cost of abolishment

The AER should seek clarity on a complete breakdown of [Jemena's proposed abolishment reference service price](#), specifically answering the following questions:

- Why this price (more than \$1,400) is considerably higher than the abolishment fees ([at most \\$950 before socialisation](#)) proposed by any Victorian gas distributor.
- Whether this fee reflects only the physical cost for Jemena to decommission relevant assets, and is not being used as a form of asset cost recovery.

Abolishment costs should be minimised to remove disincentives for consumers wishing to safely leave the network. [Jemena's historic profits](#) (resulting from exposure to demand risks) also ought to be considered when determining how much consumers should pay for abolishment.

Who pays for abolishments?

IEEFA does not support Jemena's proposal to require that customers pay the full cost of abolishment. This creates a disincentive for customers wishing to safely leave the network, and could result in:

- Customers choosing to stop using gas without formally requesting a connection abolishment, resulting in a larger number of unsafe 'dormant' gas connections.
- Customers choosing to continue using gas, when they otherwise could have reduced energy costs by switching to efficient electric appliances.

The [AER's 2023 decision in Victoria](#) saw the majority of abolishment costs socialised across all gas network users' tariffs; however it was communicated that this was not a long-term solution.

The AER should provide a view – informed by engagement with the NSW government – on what this long-term solution would look like for Jemena. Decommissioning Jemena's gas network one connection at a time is likely to result in much higher costs to consumers than if a managed plan were developed to decommission larger sections of the network at a time.