



Addendum | Gas Demand Forecast for JGN Access Arrangement 1 July 2025-30 June 2030

1. Introduction

Core Energy and Resources Pty. Ltd. (**CORE**) has been engaged by Jemena Gas Network (NSW) Ltd (**JGN**) to provide an independent forecast of gas customers and gas demand for the company's natural gas distribution networks in New South Wales ("NSW"), for the five-year Access Arrangement (**AA**) Review Period from 1 July 2025 to 30 June 2030 (**Review Period**). CORE completed its forecast modelling on 19 March 2024.

On 21 March 2024 the Australian Energy Market Operator (AEMO) released the 2024 Gas Statement of Opportunities (GSOO) report and supporting materials, including an online electricity and gas forecasting portal which includes detailed data and information relating to NSW gas demand to 2042¹.

The purpose of this Addendum is to provide a concise comparison between the AEMO 2024 GSOO forecast, and the JGN AA demand forecast prepared by CORE.

2. AEMO 2024 GSOO forecast.

The AEMO electricity and gas forecasting portal enables users to access GSOO 2024 data for each eastern Australia State. The data is presented for each State, as a whole and for NSW the data is aggregated with ACT. (and the other regional gas networks in NSW including Wagga and Albury). Therefore, there are differences between the total AEMO NSW (and ACT) forecast and the CORE forecast for JGN. However, because JGN accounts for approximately 80% of CORE considers it reasonable to rely upon the comparison. Further analysis could be undertaken to achieve a like for like comparison but this has not been undertaken due to time constraints associated with lodgement date for JGNs submission with the AER.

The AEMO 2024 gas demand forecast for NSW is presented on a Calendar Year (**CY**) basis, whereas the JGN forecast is presented on a Financial Year (**FY**) basis. For this Addendum CORE has developed an estimated GSOO FY forecast by averaging CY data – for example FY 2024 is half of CY 2023 and half of CY 2024.

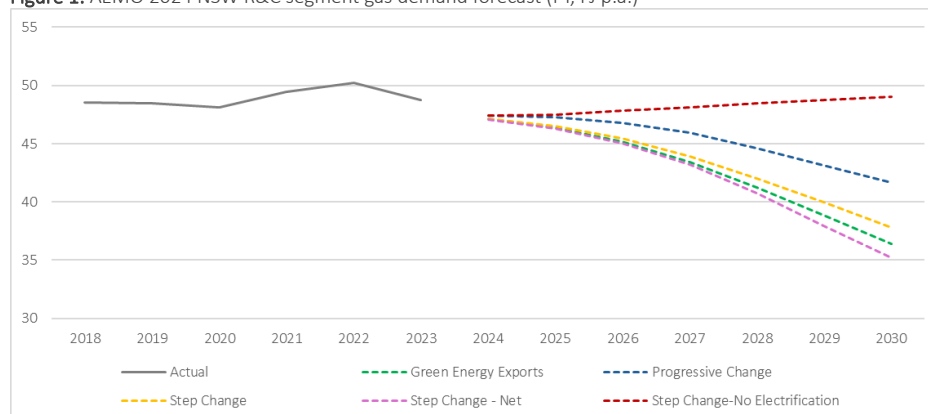
The AEMO 2024 NSW gas forecast incorporates a series of segments, including the Residential and Commercial (R&C) customers. The R&C data is presented in total and is not separated into separate residential and commercial elements. Further, the AEMO forecast is presented as actual data and a series of defined scenarios.

The AEMO 2024 forecast for R&C, presented in CY and FY terms, is set out in Figure 1.

¹ <https://forecasting.aemo.com.au/Gas/AnnualConsumption/Total>



Figure 1: AEMO 2024 NSW R&C segment gas demand forecast (FY, PJ p.a.)



Source: CORE based on AEMO GSOO 2024 data

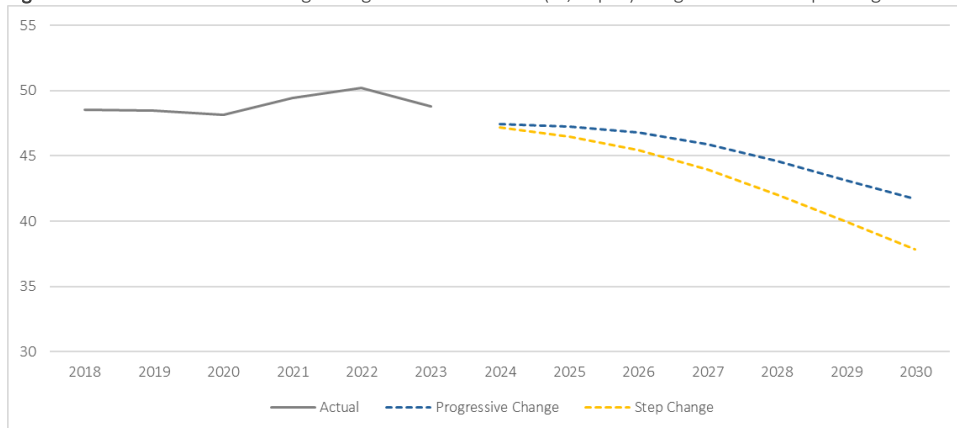
The AEMO GSOO 2024 scenarios are define as follows:

- Step Change** – achieves a scale of energy transformation that supports Australia’s contribution to limiting global temperature rise to below 2°C compared to pre-industrial levels. Electrification is a key enabler to transition the economy at a pace aligned with beating the 2°C abatement target of the Paris Agreement. Consumer actions lead to rapid and significant continued investment in orchestrated consumer energy resources (CER) and include electrification of the transportation sector. The 2024 GSOO Step Change scenario is comparable to the 2023 GSOO Orchestrated Step Change (1.8°C) scenario. The 2024 Step change has two sensitivities applied – “No electrification” and “Net”.
- Green Energy Exports** – reflects very strong decarbonisation activities domestically and globally aimed at limiting temperature increase to 1. °C, resulting in rapid transformation of Australia’s energy sectors, including a strong use of electrification, green hydrogen and biomethane.
- Progressive Change** – meets Australia’s current Paris Agreement commitment of 43% emissions reduction by 2030 and net zero emissions by 2050. This scenario has more challenging economic conditions, higher relative technology costs and more supply chain challenges relative to other scenarios.

For this report CORE has focused the comparison on the Step Change and Progressive change scenarios excluding the sensitivities.



Figure 2: AEMO 2024 NSW R&C segment gas demand forecast (FY, PJ p.a.) Progressive and Step Change scenarios only

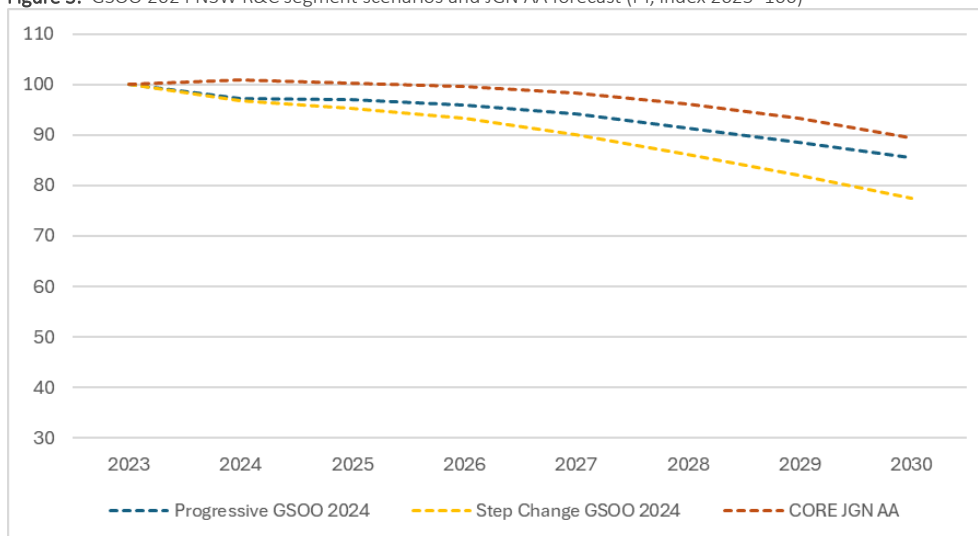


Source: CORE based on AEMO GSOO 2024 data

3. Comparison of AEMO 2024 GSOO Scenarios and CORE JGN AA forecast

CORE has used an index approach to compare the AEMO and CORE forecasts versus a PJ demand based approach, because the AEMO forecast is for NSW as a whole and the CORE forecast is for JGN alone. The index commences with 2023 data as a base year = 100 and each future year’s index measure is based on the annual movement relative to the base year via the equation: $(\text{Future year}/\text{Base year}) * 100$.

Figure 3: GSOO 2024 NSW R&C segment scenarios and JGN AA forecast (FY, index 2023=100)



Source: CORE based on AEMO GSOO 2024 data and CORE JGN AA demand forecast

Figure 3 shows that the CORE JGN Forecast is highly consistent with the index slope of the AEMO Progressive scenario throughout the 2026-2030 AA period, and materially above the AEMO Step Change scenario.

4. Conclusion

On the basis of this analysis, CORE considers the latest AEMO GSOO 2024 forecast provide strong validation of the CORE JGN AA forecast for the R&C/Tariff V customer demand.