PO Box 7182
Cloisters Square WA 6850
Tel: +61 8 6163 5400
atco.com.au

18 July 2024

Alison Toomey
Australian Energy Market Commission
Lodged via submission portal

Dear Ms Toomey,

Re: Better integration of gas into the ISP

Thank you for the opportunity to respond to the AEMC's proposed 'Better integration of gas into the ISP' rule change (GRC0073/ERC0395). It is understood the proponent, the Minister of Energy and Climate, has sought three rule changes.

ATCO is a diversified energy infrastructure owner, operator, and renewable energy asset developer that owns and operates WA's largest gas distribution system, two gas fired power stations in WA and SA, and is a renewable hydrogen and renewable energy asset developer.

We are cognisant that the energy transition will require a technology agnostic whole of system approach in order to meet Australia's net zero targets by 2050.

We have commented on aspects of the proposed rule change to better integrate gas into the ISP where we can offer informed feedback.

The key points in this submission are:

1. **The ISP would be enhanced by a more detailed assessment of gas market conditions including analysis that explores the current utility of gas networks. A technology agnostic whole of system perspective brings about robust analysis of the trade offs that need to be made to achieve a reliable, affordable and sustainable energy transition.**
2. **ATCO is supportive of further analysis into the role renewable gases can play as part of a whole of system approach. Renewable gases can benefit future household energy consumption with a significantly lesser negative climate impact whilst delivering cost benefits to consumers by repurposing existing energy infrastructure.**
3. **Acknowledge the role of consumer choice and community sentiment in all energy decisions when developing the ISP and as identified in the Future Gas Strategy, support the use and expansion of renewable gases.**

The ISP would be enhanced by a more detailed assessment of gas market conditions including analysis that explores the current utility of gas networks. A technology agnostic whole of system perspective brings about robust analysis of the trade offs that need to be made to achieve a reliable, affordable and sustainable energy transition.

A technology agnostic whole of system approach has the benefit of ensuring the ongoing delivery of reliable and secure energy at the lowest cost. To meet Australia's net zero 2050 target, the transition of the energy system must occur in a coordinated manner. Considering interactions between all energy sources will provide a holistic perspective and ensure the affordability and reliability of energy supply throughout the transition.

ATCO endorses the further analysis and consideration of gas, especially gas networks, when developing future ISPs. The ISP in its current form has near to no consideration of the energisation role that gas networks play in the current energy mix. Including consideration of gas market information in the ISP will highlight the utility of current gas infrastructure and bring about further transparency when making energy investment and planning decisions.

The benefits of including further analysis and consideration of gas networks in the development of future ISPs includes:

- **Overall utility of the gas distribution network for households when considering the energy transition trilemma**. The gas distribution network provides approximately 40% of household primary energy needs[1] and only contributes 2% towards Australia's greenhouse gas emissions[2]. Being competitively priced with electricity, it is imperative that analysis is conducted to see the outcomes of whole of system planning as AEMO pursues the optimum balance of energy sources in the future energy mix.
- **Connection to significant proportion of the population** - Currently, almost 70% of Australian households rely on gas for heating, cooking and hot water and the energy source materially serves most energy end users[3].
- **The gas network delivers energy efficiently**. The cumulative investment to build the network infrastructure to deliver energy is captured in the metric known as the Regulated Asset Base (RAB). The gas network RAB for eastern Australia's gas distribution and transmission networks total approximately $12 billion[4] compared to the electricity RAB which is closer to $100 billion[5].
- **Gas networks act as a form of storage**. Gas networks not only transport energy but offer the capacity for energy storage. Australia's existing gas network infrastructure has storage capacity representing 27,000 GWh, or an equivalent of 77 Snowy Hydro 2.0 schemes[6].

ATCO welcomes further analysis which explores the additional investment needed in the electricity network if reliance on gas networks was reduced. With the current electricity grid facing reliability issues as stated in the AEMO 2023 Electricity Statement of Opportunities (ESOO), it is foreseeable that further electrification would exacerbate what is already a tight supply and demand balance. A tighter supply and demand situation in energy markets will lead to more volatile wholesale electricity market pricing, ultimately resulting in higher prices for consumers. Modelling of the value provided by gas networks in energising households and businesses would be beneficial when guiding investment decisions and forecasting whole of system affordability and reliability outcomes.

1 Energy Networks Australia https://www.energynetworks.com.au/resources/fact-sheets/reliable-and-clean-gas-for-australian-homes/pg 2
2 Boston Consulting Group, The Role of Gas Infrastructure in Australia's Energy Transition, 2023, pg 6
3 Energy Networks Australia, Reliable and clean gas for Australian homes, pg1
4 Australian Energy Regulator State of the energy market report 2023, Chapter 6 Regulated Gas Pipelines
5 Australian Energy Regulator State of the energy market report 2023, Chapter 4 Electricity Networks
6 Energy Networks Australia, Gas Vision 2050 – Delivering a Clean Energy Future, September 2020

ATCO is supportive of further analysis into the role renewable gases can play as part of a whole of system approach. Renewable gases can benefit future household energy consumption with a significantly lesser negative climate impact whilst delivering cost benefits to consumers by repurposing existing energy infrastructure.

Gas has the potential to lower its emission profile through the use of renewable gases (such as biomethane and hydrogen), thus bringing the financial benefit of repurposing existing infrastructure. Gas represents approximately 30% of Australia's primary energy supply[7]. This is a sizable proportion of the energy mix and a costly one to replace if electrification is actively pursued. There will also continue to be a need for gas in applications unable to be electrified, such as for industrial feedstock and high heat applications.

Renewable gases and other forms of bioenergy offer all the utility of fossil fuels whilst having a significantly lower emissions profile.[8] The circular nature of their emissions lifecycle means there is no additional carbon being introduced to the atmosphere. With this greenhouse gas mitigation potential, further modelling of their future use would be welcomed in the ISP. There is great potential to develop renewable gases and other bioenergy products as noted by the Australian Renewable Energy Agency (ARENA). Australia has ample feedstock across agriculture, forestry and organic waste to produce in excess of 1000PJ per annum of bioenergy[9]. For comparison, the current gas distribution systems transport around 200PJ a year to consumers, so there is potential to have the gas system well supplied with renewable gases.

The potential to repurpose existing gas infrastructure with lower emission fuels is worth taking into consideration when developing the ISP. The Australian Hydrogen Centre[10] acknowledges existing gas distribution networks can help to deliver up to 10% renewable hydrogen by 2030. ATCO are already demonstrating that renewable forms of hydrogen can be blended into parts of the WA distribution network. The existing gas networks can also easily transport biomethane and synthetic methane, which has the same molecular composition as natural gas and a significantly lower emission profile.

Acknowledge the role of consumer choice and community sentiment in all energy decisions when developing the ISP and as identified in the Future Gas Strategy, support the use and expansion of renewable gases.

In keeping with the principles of the 'Future Gas Strategy' recently released by the Department of Industry, Science and Resources, which endorses the use of renewable gases/biomethane to substitute natural gas, further analysis of how these energy sources can influence the ISP will bring more transparency when considering various decarbonisation pathways.

The Future Gas Strategy endorses consumer choice in its fourth principle. As part of our recent Access Arrangement submission to the Economic Regulation Authority (ERA), the ERA undertook a survey in early 2024. The survey found that a gas mains connection was considered at least 'quite important' by 76% of respondents when considering a new home.[11] As such, by integrating gas into the analysis of the ISP, customer choices and consumer sentiment from using gas should also be considered.

[7] https://www.energy.gov.au/energy-data/australian-energy-statistics/energy-consumption#:~:text=Fossil%20fuels%20(coal%2C%20oil%20and,%25)%20and%20gas%20(27%25).
[8] Intergovernmental Panel on Climate Change (IPCC) Bioenergy Report, pg 214
[9] ARENA, Australia's Bioenergy Roadmap, https://arena.gov.au/knowledge-bank/australias-bioenergy-roadmap-report/ , pg23-24
[10] Available from: https://www.agig.com.au/australian-hydrogen-centre
[11] ERA, Draft Decision Overview, April 2024, pg 6

If you have any questions or would like to discuss any of the comments made in this submission, please contact Hugh Smith, General Manager – Regulatory Strategy & Policy at hugh.smith@atco.com or 0459 894 397.

Yours sincerely,

John Ivulich
Chief Executive Officer and Country Chair