

14 November 2018

Nicola Cusworth
Chair, Economic Regulation Authority
Level 4, Albert Facey House
469 Wellington Street
PERTH WA 6000

Dear Ms Cusworth

Kawasaki Heavy Industries, Ltd. welcomes the opportunity to respond to the ERA's Issues Paper in relation to ATCO Gas Australia's Proposed Revisions to the Mid-West and South-West Gas Distribution System Access Arrangement for 2020 to 2024.

About Kawasaki Heavy Industries, Ltd. (KHI)

KHI has over a century of experience in research, development and innovation across energy, transport, shipping, submarines, aerospace, precision machinery and industrial robots. Hydrogen has been a key focus of KHI's corporate strategy, R&D and business investments over the last decade. Our main interest in hydrogen is to develop leading technologies and supply equipment and facilities for production, transportation, liquefaction and hydrogen applications, including power generation. KHI has already designed and built storage tanks used to hold hydrogen rocket fuel, as well as a ground breaking liquefaction plant and hydrogen gas turbines.

KHI has been leading the Hydrogen Energy Supply Chain (HESC) project, which aims to convert Victorian brown coal into liquid hydrogen for export to Japan. The HESC project is working to establish an integrated commercial-scale hydrogen supply chain that encompasses production, transportation and storage of hydrogen. KHI is committing significant time, resources and capital to the development of innovative new technology and processes that will meet the needs of the future global energy market in a sustainable fashion.

KHI is also a Steering Member of the Hydrogen Council, a global initiative of leading energy, transport and industry companies with a united vision and long-term ambition for hydrogen to foster the energy transition.

Decarbonisation

According to the United Nations Framework Convention on Climate Change, 194 countries have agreed to reduce their greenhouse emissions since 2015¹. Australia is expected to have a long-term emissions strategy by 2020, and most states have committed to a target for net zero emissions by 2050².

Just as this provides potential for new energy sources such as hydrogen, these policies alter the long term outlook for natural gas and its role in the energy system. The recent reports on the opportunities from hydrogen from Australia's Chief Scientist and ARENA attest to this.

Where natural gas is currently a 'clean' alternative to energy from emissions intensive sources, the distinction will recede as availability of energy from renewable sources energy increases. The policy push is moving inevitably from a comparative reduction in total emissions toward an absolute position of zero emissions.

Hydrogen is a flexible energy carrier and is getting momentum globally as a potential solution to decarbonise gas networks whilst also enhancing the reliability and stability of the electricity grid. CSIRO's National Hydrogen Roadmap released in August suggests that the cost to produce low or zero emissions hydrogen is reducing considerably over time – a function of the lower cost of renewables, lower manufacturing and deployment costs of electrolyzers. We expect these and other issues to be part of a proposal to the COAG Energy Ministers to develop a National Hydrogen Strategy next year.

Investment in innovation

In light of the particular conditions influencing the global energy market, KHI directs its comments to Issue 4 in ERAWA's paper – ATCO's proposed Network Innovation Scheme.

We understand the necessity to protect users from rent-seeking by the owners of

¹ "COP21", United Nations Framework Convention on Climate Change, accessed July 4, 2018,

<https://unfccc.int/process-and-meetings/conferences/pastconferences/paris-climate-change-conference-november-2015/cop-21>

² Climate Council of Australia Ltd, Renewables Ready: States leading the charge, 2017

monopoly infrastructure, and the function of approved access arrangements to simulate the forces of a competitive market. The regulatory framework for gas distribution is effective in this regard, but it operates on the assumption that the market is in a steady-state over time.

The incentives in the framework are geared toward year-by-year improvements to operational efficiency, which works against a business wishing to address the known challenges facing the gas industry. It makes commercial sense for ATCO to propose an additional incentive to balance its immediate obligation to deliver efficient service over the next five years, and its responsibility to look further ahead to the advances needed over the next twenty to thirty years.

ATCO's proposed Network Innovation Scheme (NIS) is modest in relation to the risk it faces if policy and economic development render natural gas uneconomical. Under equivalent pressure, a firm operating in a competitive market would invariably be investing toward longer term horizons to ensure it could continue as conditions evolved.

The risk of asset stranding is significant for ATCO and not insubstantial for end users of gas. On this basis, it is not incompatible with the framework to share some of the costs of future-proofing the network with users. ATCO's proposal contains a number of checks and balances, including project criteria, ex-post approval and annual review to ensure that the expenditure is responsible and fully accountable.

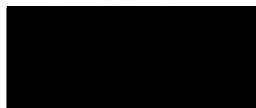
Conclusion

Our reading of the National Gas Objective notes the emphasis on efficiency and long term interests. We encourage the ERA to consider the prudence and efficiency of the proposed NIS in the context of the benefits to consumers that arise from a long-term outlook and investment in preparing for an uncertain future.

We believe hydrogen offers 'sector coupling' flexibility and is likely to be part of the solution for a sustainable and competitive energy market in Australia and globally. Our team is working tirelessly to develop the technologies and solutions to make a hydrogen society viable and we share ATCO's commitment to innovation as an important step towards this future.

Please contact me if you would like to discuss this submission further.

Yours sincerely



Motohiko Nishimura

Deputy General Manager, Hydrogen Project Development Centre