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Climate Change Authority
51 Allara Street
Canberra City ACT 2601
Via email: submissions@climatechangeauthority.gov.au

Energy Networks Australia's submission to the "2020 Review of the Emissions Reduction Fund Consultation Paper"

Energy Networks Australia welcomes the opportunity to provide input to the 2020 review of the Emissions Reduction Fund.

Energy Networks Australia is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

Our gas distribution businesses manage more than five million connections to Australian households and businesses. Connections have grown at about 100,000 new connections a year over the past decade. The gas supplied through these networks provides 44 per cent of the annual energy consumption of homes around the country.

To date, the focus of decarbonisation has been on the electricity sector – facilitated by government programs, especially the Renewable Energy Target, which has seen strong investment and cost reductions in renewable energy generation technologies.

Gas networks are on their own decarbonisation journey. New renewable fuels, such as biogas and hydrogen, have the potential to become mainstream and complementary energy solutions that will use existing energy infrastructure. Gas Vision 2050¹ outlines the gas industry's journey to decarbonise the use of natural gas in homes, businesses and industry. The transformational technologies identified are biogas, hydrogen and carbon capture and storage. Upgrading biogas to bio-methane and hydrogen technologies create the greatest opportunity to decarbonise the network sector.

Decarbonising the gas in natural gas networks will deliver a safe, reliable and zero-emissions fuel for customers. Network businesses are actively involved in the development of projects to produce and blend renewable gasses into networks². The next step is to demonstrate the commercial feasibility of renewable gas options including both hydrogen and biogas, with the aim of fully converting networks to renewable gas in the next 20 to 40 years.

In Australia, green energy certificates are only available for electricity generation³ which is a disincentive to divert renewable gas for blending into networks, even where

¹ Energy Networks Australia (2017), *Gas Vision 2050*, available from www.energynetworks.com.au/gas-vision-2050

² Energy Networks Australia (2019), *Gas Vision 2050: Hydrogen innovation*, available from www.energynetworks.com.au/gas-vision-2050

³ Green credits are also available as ACCU's through the Emission Reductions Fund but that focusses on reductions in greenhouse gas emissions instead of clean energy.

that would be a better outcome from an emissions and commercial perspective. This is the fundamental reason why biogas collected at landfills is used to generate onsite heat with electricity where the electricity is exported and generates a revenue from both the electricity price and the value of the renewable energy certificates. An alternate, potentially superior, use of the gas is to blend it in the gas networks and to reduce the emission intensity of the gas blend.

Upgrading biogas to bio-methane is supported in many countries. The IEA Bioenergy Taskforce⁴, highlights that different financial incentives drive different uses of biogas. The design of incentives to support bio-methane blending in networks should support the development and commercialisation of the technology. The same would apply to hydrogen. Over time, these incentives should be adjusted as the technology becomes widely deployed and becomes commercially competitive.

A new ERF method for blending renewable gas into the gas networks would provide opportunities for project proponents to access government funding through the Emissions Reductions Fund (and the new Climate Solutions Fund) to support activities to reduce greenhouse gas emissions. While some methods, such as the *Alternative Waste Methodology* or the *Facilities Method* (through fuel switching) could be modified, a new method specifically focussed on blending renewable gas in networks should be considered. This method would address the following:

- » The abatement calculated under the method should consider the different fuel intensities for the amount of energy replaced by renewable gas.
- » Hydrogen, biomethane and renewable methane (made from hydrogen and atmospheric CO₂) should be included.
- » A separate emission intensity could be applied for hydrogen produced from natural gas with carbon capture and storage.

Any blending in networks would need to be carried out according to technical and safety regulations, and market design principles.

If you have any questions or would like a to discuss this further, please do not hesitate to contact our Head of Gas - Dr Van Puyvelde on:

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Yours sincerely,



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⁴ IEA Bioenergy Task 37 (2019), *Country Report Summaries 2019*