

24 February 2023

Safeguard Mechanism Taskforce
Department of Climate Change, Energy, the Environment and Water
GPO Box 2013
Canberra, ACT 2601

Via email: safeguard.mechanism@industry.gov.au

Energy Networks Australia's response to the Safeguard Mechanism reform: consultation on proposed design

Energy Networks Australia welcomes the opportunity to provide input during the consultation period on the proposed designs of the Safeguard Mechanism reform.

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.

This submission is made on behalf of our gas distribution network members.

Key points

- » ENA supports the government's target to reducing emission by 43 per cent in 2030.
- » Supportive policies and reforms could help deliver emission reductions opportunities from gas infrastructure between 16 and 50 per cent by 2030.
- » Introducing emission reduction activities requires a long lead time.
- » ENA supports the continuation of a production adjusted baseline for facilities.
- » ENA support the proposed Safeguard Mechanisms Credits.
- » ENA supports a coordinated approach to energy reform.

ENA supports the government's target to reducing emissions by 43 per cent in 2030.

Energy Networks Australia is supportive of net zero by 2050¹, with energy networks being key to delivering a net zero emissions energy system. Our gas network members are working on renewable gas solutions that can support Australia's decarbonisation efforts. Progress on projects and detailed actions to increase the level of renewable gas in Australia's gas networks are outlined in Gas Vision 2050².

Key priorities identified in the 2022 Gas Vision 2050 Update³ include:

¹ <https://www.energynetworks.com.au/energy-vision-networks-delivering-net-zero/>

² <https://www.energynetworks.com.au/projects/gas-vision-2050/>

³ <https://www.energynetworks.com.au/resources/reports/2022-reports-and-publications/delivering-the-pathway-to-net-zero-for-australia-2022-outlook/>

- » Supporting market development for renewable gases (through supportive supply and demand side policies),
- » Development of 100 per cent capable hydrogen appliances; and
- » Securing the biomass resource.

Supportive policies and reforms could help deliver emission reduction opportunities from gas infrastructure between 16 and 50 per cent by 2030.

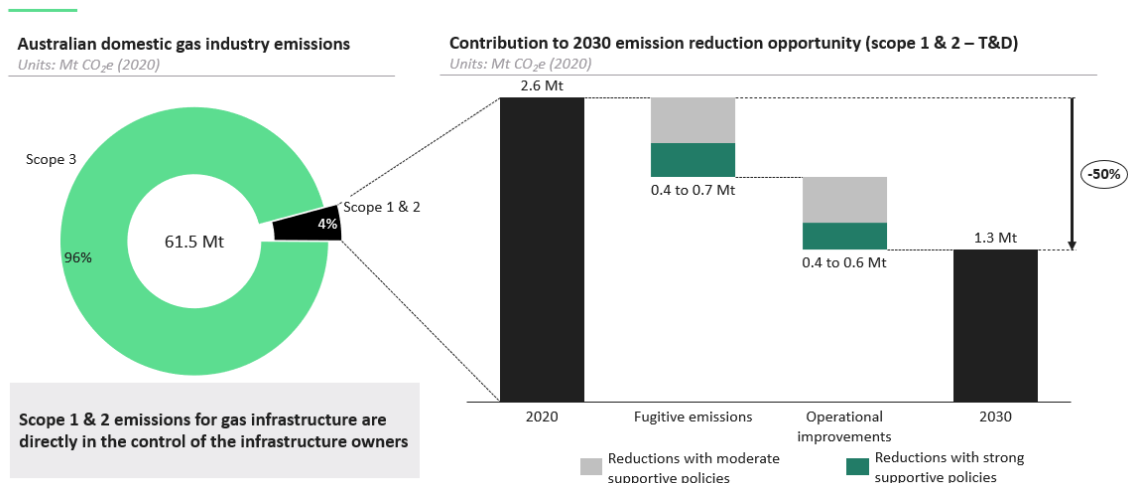
A study by ENEA consulting⁴ identified a range of opportunities to reduce emissions from gas networks. These opportunities relate to both Scope 1 emissions (such as those covered by the Safeguard Mechanism) and Scope 2 and 3 emissions, which are not attributable to gas networks under the Safeguard Mechanism.

The emissions from gas are dominated by the combustion of that gas for providing heat, resulting in 96 per cent of the emissions. The remaining 4 per cent is due to activities by gas infrastructure businesses to deliver that gas to customers. These Scope 1 and 2 emissions are in the direct control of gas infrastructure businesses.

For gas infrastructure, the opportunities to reduce Scope 1 and 2 emissions include:

- » Understanding fugitive emissions across assets;
- » Preventing fugitive emission across assets;
- » Responding to fugitive emissions;
- » Reducing direct emissions from gas pipeline infrastructure; and
- » Reducing other operational emissions.

These opportunities can enable a 50 per cent emission reduction in Scope 1 and 2 emissions by 2030 but require supportive policies and actions.



⁴ ENEA Consulting (2023), *2030 Emission reduction opportunities for gas networks*, available from: <https://www.energynetworks.com.au/miscellaneous/2030-emission-reduction-opportunities-for-gas-networks-by-enea-consulting-2022/>

Figure 1: Emission reduction opportunities for Scope 1 & 2 emissions from gas infrastructure (Source: ENEA Consulting).

A range of supportive policies were identified by ENEA including:

- » Allowing regulated gas infrastructure businesses to recover the cost of fugitive emissions reduction activities (currently prevented).
- » Providing regulatory incentives for gas infrastructure operators to minimise gas leakages and reduce fugitive emissions.
- » Expand the Emission Reduction Fund methodologies to include venting or fugitive emissions avoidance (currently only flaring of vented gas is covered).
- » Allowing regulated gas infrastructure businesses to recover costs of operational emission reduction initiatives.
- » Safeguard Mechanism amendment to recognize zero Scope 1 emissions from renewable gas use.
- » Transition to zero carbon fleet vehicles requires government support for broader model availability and refuelling/ recharging infrastructure.

Much greater emission reductions are possible with decarbonising the fuel being transported by gas infrastructure businesses. A key policy would be the introduction of a Renewable Gas Target. This would incentivise the creation of a market for renewable gas. A renewable gas target of at least 20 to 50 per cent covering all renewable gases including hydrogen, biomethane and renewable synthetic methane could support a 50 per cent emission reduction for customers using gas. It would also lead to reduced scope 1 & 2 emissions from gas networks by replacing the natural gas used at facilities by renewable gas.

Moderate supportive policies can achieve a 16 to 30% reduction in emissions while stronger settings may achieve up to 50% reduction

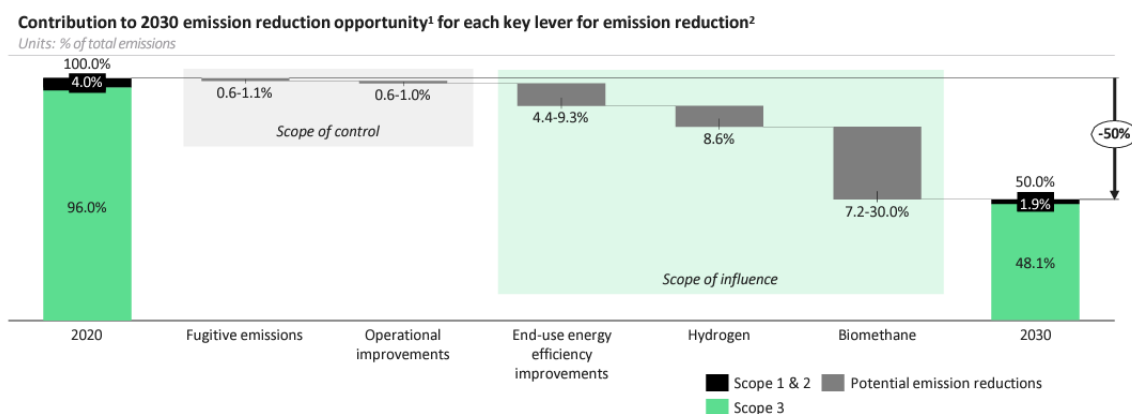


Figure 2: Emission reduction opportunities for gas networks (Source: ENEA Consulting)

Additional supportive policies are required to complement the Safeguard Mechanism Reform. Learning from the Renewable Energy Target, ENA recommends that the government consider introducing a renewable gas target. This could be based on a certificate mechanism with some level of guaranteed government certificate purchases.

Introducing emission reduction activities requires a long lead time.

Implementing the opportunities identified above firstly requires supportive policies to be developed. Developing these policies and reforms can take many years. For example, the National Hydrogen Strategy⁵ in 2019 recommended:

Action 4.16 – Hydrogen Certification - Agree that Australia will seek to play a lead role in the design and development of an international guarantee of origin scheme.

There has been a range of consultations to develop the certification scheme and it is expected to commence in 2024⁶. This is an enabling policy to support renewable hydrogen being produced and purchased by interested consumers. It will take over 4 years to implement this policy and many other supportive policies (e.g. development of additional carbon credit methods) will be needed to achieve the emission reduction opportunities identified above.

Following the development of supportive policies, investments in new infrastructure also takes time and involves prefeasibility and feasibility studies, securing financing, contracting, construction and commissioning. Depending on the complexity of the project, this process can take years. AEMO in its Inputs, Assumptions and Scenarios Report has noted that the lead time for a small battery storage project could take 2 years while a biomass project can take 6 years.

Implementing the above opportunities requires both supportive policies before any investments can be made to build the infrastructure to reduce emissions. Tightening of the baseline from July 2023 does not adequately recognise the lead time for these emission reduction opportunities.

ENA supports the continuation of a production adjusted baseline for facilities.

Australia's gas distribution networks have over 96,000 km of mains piping and continue to grow at a rate of approximately 100,000 new residential connections per year⁷ reaching 5.2 million connections in 2020. Gas distribution networks have different characteristics reflecting when they were built, how they were designed and the types of customers they serve. Figure 3 illustrates different operating pressures of different networks, which reflects the different materials used during construction.

⁵ COAG (2019), *Australia's National Hydrogen Strategy*

⁶ <https://www.dcceew.gov.au/about/news/hys-guarantee-of-origin-scheme>

⁷ ENA (2022), *Reliable and clean gas for Australian homes*, pg 3

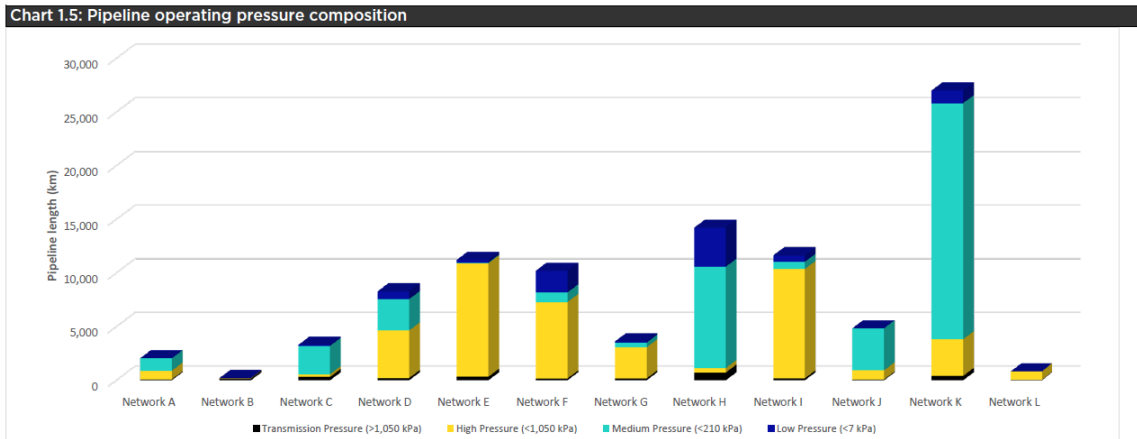


Figure 3: Operating pressures of Australia’s gas distribution networks (Source: ENA analysis)

Scope 1 emissions from networks are a combination of fugitive emissions from network components and metering but also fugitive emissions from third party strikes on assets. Moving towards an industry average cannot recognise the bespoke nature of individual networks.

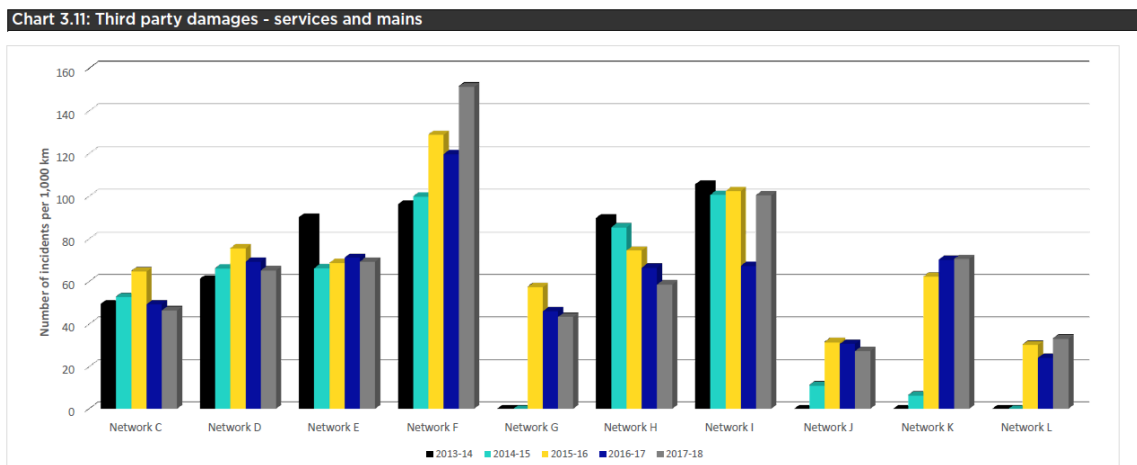


Figure 4: Third party damages per 100 km to gas distribution networks (Source: ENA analysis)

ENA supports the continuation of production adjusted baseline for individual networks that are covered by the Safeguard Mechanism.

ENA supports the proposed Safeguard Mechanisms Credits.

The proposed mechanism credits enable lowest cost abatement opportunities to be achieved across all Safeguard facilities. This approach ensures resources are directed to the lowest cost abatement opportunities across all facilities. This approach is more efficient and produces lower cost abatement for producers and ultimately consumers.

ENA supports a coordinated approach to energy reform.

There are many processes underway to reform the energy sector and reduce of emissions. This includes the Hydrogen Guarantee of Origin Scheme, the National Energy Performance Strategy, the

expansion of the National Energy Objectives and the current reforms for the Safeguard Mechanism, and more.

ENA supports a coordinated approach to energy reforms.

If you have any questions or would like to discuss this further, please do not hesitate to contact ENA's Head of Renewable Gas: Dr Dennis Van Puyvelde at: dvanpuyvelde@energynetworks.com.au.

Yours sincerely,



Dominic Adams

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