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National Greenhouse Accounts
Commonwealth Department of Climate Change, Energy, the Environment and Water

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National Greenhouse and Energy Reporting Scheme

The Justice and Equity Centre (JEC) welcomes the opportunity to respond to the Commonwealth Department of Climate Change, Energy, the Environment and Water's (DCCEEW) consultation paper on proposed changes to the National Greenhouse and Energy Reporting (NGER) Scheme.

We strongly support the collection, analysis and publishing of data on greenhouse gas emissions, energy consumption and energy production by Australian corporations. This reporting contributes to Australia's accounting for and tracking of carbon emission reduction goals and targets, which are crucial to achieving Australia's domestic and international climate commitments within the required timeframes. Robust and accurate emissions reporting is a fundamental part of ensuring efficient and effective emissions reduction which promotes consumers' interest in affordable, sustainable and reliable energy services.

The JEC supports an NGER Scheme which contributes to the efficient creation and use of the lowest emission renewable energy sources. Where consumers inevitably pay for fuel sources and the offsets and measures to mitigate emissions, it is crucial that consumers can trust they are being delivered what they expect and are paying for.

Introducing biomethane and hydrogen into market-based reporting

The JEC supports introducing robust market-based reporting of emissions from the use of biomethane and hydrogen. Including these fuels in the NGER Scheme has the potential to strengthen the reporting framework and the policy and industry decisions enabled by accurate ongoing reporting.

However, we are concerned that the Department proposes to assign biomethane an emissions factor of zero. The lifecycle emissions of the product, attributable to the fuel stock and/or source of biomethane, any land use change, emissions in the production of the biomethane, and how it is transported and stored all have implications for actual emissions involved, and hence the appropriate the emissions factor to be used. The Department's own accounting does not provide an emissions factor of zero elsewhere, with the Direct (Scope 1)

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emission factors for the consumption of biomethane being assigned 0.0393.[1] The Climate Change Authority in their review of the NGER discussed lifecycle emissions of biofuels.[2]

The Department comments in the Consultation Paper, that the NGER scheme is not a lifecycle emissions reporting scheme and proposes to recognise Renewable Gas Guarantee of Origin (RGGO) certificates. An examination of the RGGO schemes rules indicates that the scheme assigns a certificate on a 1:1 basis for fossil gas displaced.[3] The scheme does consider the production method and feedstock source, nonetheless it does not account in detail for the lifecycle emissions of the biomethane injected into a gas network. Instead, it requires only that a renewable gas (including biomethane) 'has lower GHG emissions than the equivalent fossil fuel product'.[4] This is not a robust basis on which to establish the actual emissions resulting from the production, transport, storage and use of biomethane.

We recommend the Department develop more detailed and nuanced measurements and analysis for biomethane to create a more robust and accurate factor.

We are also concerned that the proposed loss factor of 1% for biomethane is not credible or grounded in current experience with the transportation and use of methane. In their recent 2025-30 Access Arrangement Proposal, Jemena Gas Networks (NSW) assumed their Unaccounted-for Gas at 3 percent[5]. Recent research suggests that biomethane is leakier than fossil methane, with one study demonstrating that leakage can be almost 6 percent[6].

We recommend the Department develop a credible, evidence-based loss factor for biomethane which reflects an accurate likely contribution to emissions through losses.

We support bringing hydrogen into market-based reporting. However, we caution the Department against incorporating hydrogen until the methodology and calculations for nitrogen (NOx) are resolved, as this is potentially material for calculating the emissions factor for hydrogen. The production of hydrogen also involves embedded emissions, and leaked hydrogen is a potentially significant enhancer/catalyst for carbon emissions[7]. As a result of this, it is not credible to assign hydrogen an emissions factor of zero.

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1 Commonwealth DCCEEW, 2024, *Australian National Greenhouse Accounts Factors: For individuals and organisations estimating greenhouse gas emissions,* p.18

2 Climate Change Authority, 2023, *2023 Review of National Greenhouse and Energy Reporting Legislation,* pp.49-54.

3 NSW Department of Climate Change, Energy, the Environment and Water, 2024, *Rule 7.2 Creation of RGGO certificates,* in GreenPower Renewable Gas Certification Rules, pp. 15-16

4 See the definition of 'Renewable Gas' (p.7), and Appendix 1 Accreditation Criteria (pp.25-30) in NSW Department of Climate Change, Energy, the Environment and Water, 2024, *GreenPower Renewable Gas Certification Rules*.

5 Jemena Gas Networks (NSW) Ltd, 2024, *2025-30 Access Arrangement Proposal: Attachment 6.7 Unaccounted for gas*

6 Marconi, P & Rosa, L. 2023, *Role of biomethane to offset natural gas*, Renewable and Sustainable Energy Reviews, vol.183, p.4

7 Derwent, R. 2023, *Global warming potential (GWP) for hydrogen: Sensitivities, uncertainties and meta-analysis,* International Journal of Hydrogen Energy, 48:22, pp.8328-8341.

We recommend the Department further consider the full scope of issues impacting the potential emissions involved in hydrogen production, transport and use in order to set a more robust and accurate emissions factor.

Further resources

The JEC has provided feedback on a range of processes concerning biomethane and hydrogen. Please review the following resources for further detail on embedding consumer interests and outcomes in renewable fuels.

- Submission to the National Hydrogen Strategy Review
- Submission to NSW DCCEEW Opportunities for a renewable fuel industry in NSW
- Submission to Commonwealth DCCEEW Electricity and Energy Sector Decarbonisation Plan

Yours sincerely

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