Environmental Defenders Office

Submission in response to the Draft Future Gas Strategy for lutruwita/Tasmania

20 January 2023

About EDO

EDO is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 30 years' experience in environmental law, EDO has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

Environmental Defenders Office is a legal centre dedicated to protecting the environment.

www.edo.org.au

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Acknowledgement of Country

The EDO recognises First Nations peoples as the Custodians of the land, seas and rivers of Australia. We pay our respects to Aboriginal and Torres Strait Islander Elders past, present and emerging, and aspire to learn from traditional knowledge and customs so that, together, we can protect our environment and cultural heritage through law.

In providing these submissions, we pay our respects to First Nations across Australia and recognise that their Countries were never ceded and express our remorse for the deep suffering that has been endured by the First Nations of this country since colonisation.

Environmental Defenders Office (**EDO**) welcomes the opportunity to comment on the Draft Future Gas Strategy for lutruwita/Tasmania (**Draft Strategy**).

Urgent and rapid reductions in greenhouse gas (**GHG**) emissions from both direct and indirect sources are now required to meet the Paris Agreement goal of "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C".[1] The longer emissions reductions are delayed, the more pronounced and severe the effects of climate change will become.

Gas is a potent GHG, with methane being 86 times more potent as a GHG than carbon dioxide over a 20-year period.[2] Therefore, in terms of mitigating GHG emissions, phasing out the production, transmission and use of gas is a very important tool in combating global heating. There are also human health benefits to doing so, with recent studies finding that the use of gas in the home for heating and cooking causes the exposure of the inhabitants to harmful carcinogens and lower air quality. [3] These health risks and impacts disproportionately affect the most vulnerable in our community: those living in social and rental housing and who cannot afford to make the switch to cleaner alternatives. [4]

lutruwita/Tasmania is in an enviable position in Australia as achieving net zero GHG emissions since 2014.[5] However, without real action to reduce GHG emissions across all sectors, including the energy and industrial sectors, that achievement is not guaranteed to be maintained.[6]

Consistent with lutruwita/Tasmania's legislated net zero (or lower) GHG emission target,[7] EDO is encouraged by the statement in the Draft Strategy that the Tasmanian Government has a "clear

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[1] In December 2015, over 190 nations affirmed a goal to reduce greenhouse gas emissions in order to limit average global warming to well below 2°C above preindustrial levels and to pursue efforts to limit warming to 1.5°C. United Nations Framework Convention on Climate Change Conference of the Parties 21, Adoption of the Paris Agreement, 'Annex -Paris Agreement', Article 2 (FCCC/CP/2015/L.9/Rev.1). The Paris Agreement builds on past international commitments in Cancun, Lima and elsewhere under the 1992 UN Framework Convention on Climate Change.

[2] G. Myhre, D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestvedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura and H. Zhang, in Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, ed. T. F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2013.

[3] Belova, A., Dagli, R., Economu, N., Hartley, S., Holder, C., Hubbard, H., Justice, M.A., Lettes S., Raymer, P. and Silva, R. 2022. Literature Review on the Impacts of Residential Combustion, Final Report. American Lung Association and ICF, July 2022.

[4] Australian Council of Social Service, Brotherhood of St Laurence, The Climate Institute, 2017, *Empowering disadvantaged households to access affordable, clean energy*, at pp 8, and 36-37, accessed at https://www.acoss.org.au/wp-content/uploads/2017/07/ACOSS_BSL_TCI_Empowering-households.pdf on 18 January 2023.

[5] Australian Government, Department of Climate Change, Energy, the Environment and Water, National Greenhouse Accounts, Emissions by State and territory, accessed at https://www.greenhouseaccounts.climatechange.gov.au/ on 16 January 2023.

[6] See the medium- and high-reference emissions scenarios modelled by Point Advisory in Point Advisory (2021) 2021 Update of Tasmania's Emissions Pathway Review – technical report Final report, accessed at https://www.dpac.tas.gov.au/divisions/archived-climatechange/Climate_Change_Priorities/review_of_the_climate_change_act at Figure 18, p 31.

[7] Section 5 *Climate Change (State Action) Act 2008* (Tas)

policy agenda to reduce greenhouse gas emissions, promote renewable energy and transition away from fossil fuels". EDO agrees that it is not a question of if, but rather of how and over what timeframe lutruwita/Tasmania moves to decarbonise its gas sector. While EDO supports the Government's intent not to "prolong the use of natural gas and LPG …", the Draft Strategy should be more ambitious in the identified actions and by provide a clear plan (and associated timeframes) for the State's transition from these harmful fossil fuels.

In the following submission, EDO addresses:

1. The Future of Gas in lutruwita/Tasmania, including proposed decarbonisation pathways;
2. The Government's Proposed Vision for Gas in lutruwita/Tasmania; and
3. The proposed Government Actions under the Draft Strategy.

A summary of EDO's recommendations concerning these issues can be found below.

Recommendations

Recommendation 1: The Future Gas Strategy support the rapid electrification of all energy demands where possible, or otherwise support the decarbonisation of other energy demands with fully renewable energy.

Recommendation 2: The Future Gas Strategy fully map out the stages of the transition from gas to renewable energy with a particular focus on reducing energy demand, increasing energy efficiency and the electrification of all energy use if possible.

Recommendation 3: The Future Gas Strategy provide timeframes for the phases of transition from gas to renewable energy, including the rapid reduction of gas use by 2030 and the full transition away from fossil fuels by 2050.

Recommendation 4: Regulations should be introduced to stop any new connections to lutruwita/Tasmania's gas network.

Recommendation 5: The Future Gas Strategy provide a plan for the phased and orderly disconnection to the gas network of consumers by 2030, to allow business and domestic consumers to plan ahead.

Recommendation 6: The proposal in the Draft Strategy to blend hydrogen into existing natural gas networks be dropped. Instead, the focus of the Future Gas Strategy should be on providing local sources of green hydrogen as a fuel for industries that are not able to otherwise electrify their processes.

Recommendation 7: The terms "bioenergy" and "biogas" need to be clearly defined in the Future Gas Strategy to ensure that they only cover options that deliver a net reduction in GHG emissions, that are economically and energetically efficient, and that they do not otherwise cause environmental or social harms.

Recommendation 8: The Tasmanian Government should be extremely cautious in promoting the low-level blending of hydrogen, biomethane and other renewable gases into existing gas distribution systems in Australia, and should ensure that this option is only pursued where it does not prolong the market for fossil fuels or their production.

Recommendation 9: Any reforms to the regulatory framework applying to the development of the hydrogen industry should ensure that all statutory processes and approvals are subject to clear and strict environmental protections, are open and transparent and allow for public participation and appeal rights.

Recommendation 10: Emissions Reduction and Resilience Plans prepared under the *Climate Change (State Action) Act 2008* (Tas) for the energy and industrial processes and product use sectors provide ambitious and clear GHG emissions reduction targets, and rapid implementation pathways.

Recommendation 11: The "baseline emissions inventory assessment" for the Emissions Reduction and Resilience Plan for Government Operations transparently reports on the GHG emissions associated with proposed fuel substitutes for Government fossil fuel boilers.

Recommendation 12: In addition to working with industry, the Future Gas Strategy commit the Government to engage with energy experts, climate scientists, other gas consumers (including domestic consumers) and the general public to bring about a decarbonised energy system for lutruwita/Tasmania.

Recommendation 13: The Future Gas Strategy be reviewed in conjunction with lutruwita/Tasmania's broader energy strategy because energy policy should be considered holistically and not be distorted by focusing on one fuel type.

1. Future of Gas in lutruwita/Tasmania

Given the Tasmanian Government's newly legislated 2030 net zero (or lower) GHG emissions target and the projected growth in lutruwita/Tasmania's GHG emissions,[8] all Government policies, strategies and decisions must reflect the need to actively reduce GHG emissions across all sectors of lutruwita/Tasmania's economy.

The Draft Strategy (at p 1) acknowledges that gas is a "not insignificant" GHG emissions source in lutruwita/Tasmania, contributing 5% of lutruwita/Tasmania's total GHG emissions outside of the LULUCF sector.

The net zero GHG emissions target, increasingly volatile gas market and increasing costs of gas all provide powerful incentives for the Government's Future Gas Strategy to introduce an ambitious and clear strategy to transition industrial, commercial and domestic energy users away from gas. The interim use of gas should only be accommodated within the Future Gas Strategy with a clear

[8] Refer to the medium and high GHG emissions case scenarios modelled in Point Advisory (2021) 2021 Update of Tasmania's Emissions Pathway Review – technical report Final report, ("Point Advisory report") accessed at https://www.dpac.tas.gov.au/divisions/archived-climatechange/Climate_Change_Priorities/review_of_the_climate_change_act at p 31

plan to rapidly reduce its use by 2030, and completely phase out its use, along with all fossil fuels, by no later than 2050.[9] The Emissions Reduction and Resilience Plans created under the *Climate Change (State Action) Act 2008* (Tas) provide a clear mechanism for the phasing out of gas in line with the Future Gas Strategy.

1.1 Proposed decarbonisation pathways

In terms of how that transition away from gas should be facilitated, as an island state with abundant potential for electricity generation from renewable resources, lutruwita/Tasmania should aim for electrification of every energy demand that it possibly can. Where this is not possible, lutruwita/Tasmania should look to decarbonise via other fully renewable energy resources that either generate no or very low GHG emissions.

Recommendation 1: The Future Gas Strategy support the rapid electrification of all energy demands where possible, or otherwise supports the decarbonisation of other energy demands with fully renewable energy.

It is important to address some issues arising from the terminology used in the Draft Strategy's discussion on decarbonisation pathways for natural gas. EDO considers the use of the term "renewable gases" in the Draft Strategy to be disingenuous and inappropriate. For instance, on p 1 of the Draft Strategy, this term is used to lump together very different fuels with very different sustainability profiles, including green hydrogen, biogas and renewable methane and biomass. We consider this approach could be misleading.

For example, the combustion of green hydrogen releases no or minimal GHG emissions whereas the combustion of biogas or biomethane can produce substantial GHG emissions. Furthermore, the source of these fuels also plays a critical role in determining whether they are truly renewable. For instance, bioenergy or biogas derived from the digestion or combustion of native forests in any form is not renewable.

The transition of natural gas to net zero GHG emissions (i.e., decarbonisation) should not be confused through the discussion of so-called "renewable gases" that may not achieve that end. For these reasons, consideration in the Draft Strategy of bioenergy and biogas as decarbonisation options for the replacement of natural gas needs to be treated with utmost caution.

Although biofuels are notionally a renewable resource, their net carbon benefit needs to be proven. GHGs arise from the combustion of biofuels and there is a real question as to whether all those emissions are demonstrably offset in the production of biofuels.[10] The use of "wastes" or

[9] Such a timeframe is contemplated in the Point Advisory Report analysis of the GHG Abatement potential opportunities and their associated timeframes at Figure 25, p 49 and in Table 9 from p 54 and Table 11 from p 57. It is also consistent with the Climate Council of Australia recommendations in its 2022 report. *Switch and Save: How Gas is Costing Households,* accessible at https://www.climatecouncil.org.au/wp-content/uploads/2022/10/CC_MVSA0323-CC-Report-Switch-and-Save-Gas-vs-Electricity_V6-FA-Screen-Single.pdf, and with the United Nations Environment Program recommendations in its 2022 report, *Emissions Gap Report 2022* accessible at: https://www.unep.org/resources/emissions-gap-report-2022.

[10] https://www.climatetasmania.org/biofuels-conversation/, accessed 11 January 2023; Creutzig, F., Ravindranath, N.H., Berndes, G., Bolwig, S., Bright, R., Cherubini, F., Chum, H., Corbera, E., Delucchi, M., Faaij, A. and Fargione, J., 2015. Bioenergy and climate change mitigation: an assessment. *GCB Bioenergy*, *7*(5), pp.916-944.

growing crops to produce biofuels can also be energy inefficient, cause market distortions or can lead to environmental harm (e.g., unwarranted land clearing or forestry practices).

The statement in the Draft Future Gas Strategy (at p 12) that "existing natural gas boilers could be converted to direct combustion of woody biomass" is very concerning, as one potential source for such "woody biomass" likely to be promoted by the Tasmanian Government is lutruwita/Tasmania's native forests. These native forests are the reason that lutruwita/Tasmania is currently achieving net zero GHG emissions.[11] Any expansion of native forest logging through the incentivisation of transitions from natural gas to bioenergy or biogas is prone to threaten the achievement of net zero GHG emissions in lutruwita/Tasmania. Furthermore, the Australian Government recently removed the burning of native forest biomass from the definition of renewable energy sources under the *Renewable Energy (Electricity) Regulations 2001*.[12] This legislative change acknowledges the adverse biodiversity, environmental and GHG impacts of incentivising native forest biomass burning. The Tasmanian Government should ensure that its Future Gas Strategy does not pursue gas transition options that disadvantage the state's industries and clean energy reputation by opting to replace gas with fuels that are not recognised as "renewable".

Although "renewable methane" might also appear superficially to offer advantages over hydrogen in that existing infrastructure and equipment can be used, if green hydrogen is the feedstock this potentially wastes hydrogen as a fuel source and causes additional costs because energy is required first to create the hydrogen, and then again to produce methane. In any event, this is currently a hypothetical transition option because the technology to produce renewable methane at an industrial scale is not established. Even if the technology to produce renewable methane from hydrogen does become available, as with any use of methane, fugitive methane emissions pose a real risk in terms of lutruwita/Tasmania's contribution to global heating. Methane has 87 times the global heating potential of carbon dioxide in a 20-year timeframe.[13] For these reasons, the costs, efficiency and GHG emissions of "renewable methane" need to be carefully articulated and weighed before this option is seriously pursued in the Future Gas Strategy.

While EDO is supportive of the proposal to transition gas-reliant industries to "green hydrogen" where possible, we note that this fuel (i.e., H_2 generated by electrolysis of water) is most efficiently generated and used on-site with minimal distribution by pipeline. [14] lutruwita/Tasmania could do this with regional green hydrogen facilities at industrial hubs in the North, North-West and South.[15]

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[11] See Jacobs (2021) Independent Review of the Climate Change (State Action) Act 2008 at p3. Point Advisory (2021) 2021 Update of Tasmania's Emissions Pathway Review – technical report Final report at p 4. accessed at https://www.dpac.tas.gov.au/divisions/archived-climatechange/Climate_Change_Priorities/review_of_the_climate_change_act

[12] See *Renewable Energy (Electricity) Amendment (Native Forest Wood Waste) Regulations 2022*.

[13] See above at n 2.

[14] Commonwealth of Australia 2019. *Australia's National Hydrogen* Strategy. COAG Energy Council Hydrogen Working Group.

[15] Such a regional hydrogen hub is supported for Bell Bay in the recent Commonwealth Government budget papers, see: https://www.dcceew.gov.au/sites/default/files/documents/oct-budget-2022-23-jobs-fs.pdf and https://research.csiro.au/hyresource/regional-hydrogen-hubs-program/, accessed 10 January 2023.

As a very small gas molecule, hydrogen is very prone to leaking in gas pipelines, valving and distribution manifolds; it also poses fire and explosion risks in facilities not designed and engineered specifically for its use. [16] For these reasons, EDO considers it would be risky and inefficient to inject green hydrogen into existing natural gas pipelines at up to 10% blending, [17] as suggested in the Draft Strategy (at p13).

Likewise, the proposal to blend biomethane and "renewable menthane" with gas and distribute it through the existing infrastructure network poses continued risks and challenges, as already mentioned above, concerning the efficiency, costs and associated fugitive emissions of these options.

2. Proposed Vision for Gas in lutruwita/Tasmania

Some businesses in lutruwita/Tasmania are currently reliant on gas for their processes. However, the Draft Strategy (at p 15) has not established by reference to any data that there is a real risk some of these businesses would revert to using higher GHG emitting alternatives such as diesel or coal instead of opting for renewable options (such as green hydrogen) if gas were to be phased out/unavailable in the near term.

The risk that some businesses would opt to close if gas were to become unavailable in the absence of an alternative renewable fuel source (as discussed in the Draft Strategy at p 15) is best addressed through strong Government action to support the rapid development of viable renewable alternatives or, in the worst-case scenario, provide for the just transition of the workers in those industries to employment in more sustainable alternatives.

As already discussed above, the Draft Strategy has failed to appropriately weigh the energy efficiency, costs and GHG emissions (including fugitive emissions) associated with the use of or blending of so-called "renewable" gases and their distribution through current gas networks. In this context, arguments to continue or increase the use of natural gas, even as biomethane and "renewable methane", to replace other fossil fuels (coal or oil) or because of existing infrastructure are spurious. The use and distribution of such fuels is costly and inefficient in lutruwita/Tasmania and only provide a very short-term option in any decarbonisation pathway.

Where pipelines are required to distribute 100% green hydrogen, existing natural gas pipelines will not be suitable. [18] The existing gas pipeline network should be seen for what it is soon to become: a stranded asset. It should not be propped up as key infrastructure in the transition to a decarbonised energy network by the Tasmanian Government in the Future of Gas Strategy and/or by current gas consumers.

The Draft Strategy "Stages of transition" (p 17) seems primarily focussed on the adoption and update of "renewable gases" by all consumers of gas. This "one-size-fits-all" approach to the

[16] Rigas, F. and Amyotte, P., 2013. *Myths and facts about hydrogen hazards*. In *13th International Symposium on Loss Prevention and Safety Promotion in the Process Industries, Florence, Italy (May 12-15, 2013)*.
[17] https://www.linkedin.com/pulse/hydrogen-replace-natural-gas-numbers-paul-martin, accessed 11 January 2023.
[18] Ronevich, J.A. and San Marchi, C.W., 2019. *Hydrogen Effects on Pipeline Steels and Blending into Natural Gas* (No. SAND2019-12737PE). Sandia National Lab.(SNL-CA), Livermore, CA (United States).

transition stages fails to recognise the relative ease and rapid pace at which many current domestic and commercial consumers of gas could adopt renewable alternatives (such as electricity) and the active role the Tasmanian Government can and should play in that transition (through, for example, the provision of subsidies to replace gas heating and cooking).

Setting to one side the problems with the focus in the Draft Strategy "Stages of transition" on so-called "renewable gases", the Draft Strategy also provides no timeframes for the various proposed stages of the transition away from gas. The absence of even indicative timeframes is liable to create and/or contribute to uncertainty both for gas consumers and for suppliers of gas.

The United Nations Environment Program report, *The Closing Window: Climate crisis calls for rapid transformation of societies. Emissions Gap Report 2022.* (**Emissions Gap Report**) provides guidance on the rapid and systemic transformation required to achieve Paris Agreement targets and lead to longer-term zero emissions. **Figure 1** aligns the different phases of transition provided in the Future Gas Strategy with the Emissions Gap Report showing the rapid transition away from fossil fuels by 2030, with the full phase-out of gas generation in energy supply by 2050.[19]

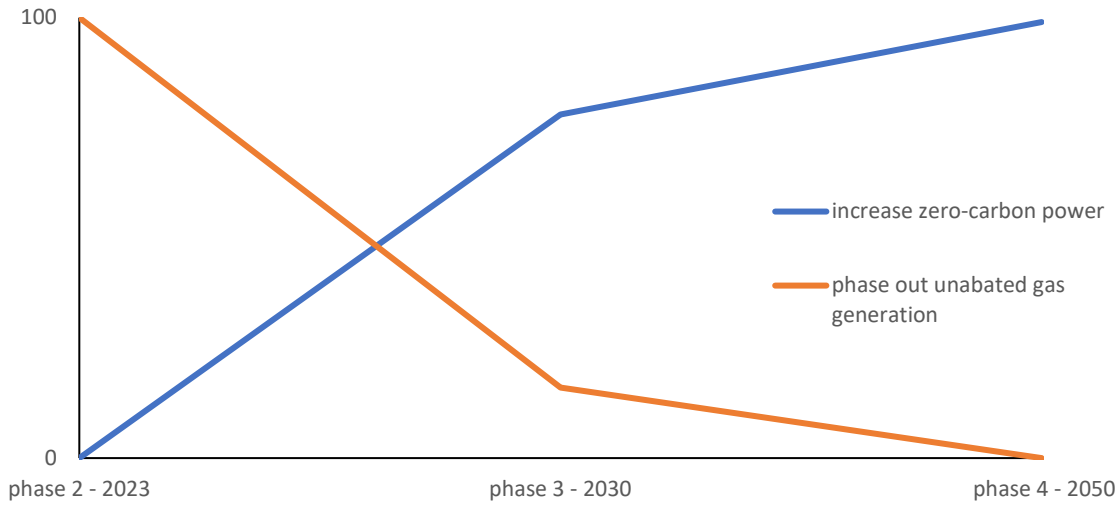

Figure 1 - This is a reconception of Figure 4 "Stages of Transition" provided at p 17 of the Draft Strategy, with dates provided and depicting the rapid decarbonisation of lutruwita/Tasmania's gas use. Figure 1 assumes lutruwita/Tasmania is at phase 2 of the four phases of transition outlined in the Draft Strategy. The Y-axis depicts gas use as a percentage, with current use represented as 100%. The X-axis provides timeframes for the phases of transition aligned with the Emissions Gap Report 2022 (UNEP).

Recommendation 2: The Future Gas Strategy fully map out the stages of the transition from gas to renewable energy with a particular focus on reducing energy demand, increasing energy efficiency and the electrification of all energy use if possible.

[19] See Emissions Gap Report above at n 9, at Chapter 5. In particular, refer to the transformations in GHG emissions in electricity supply, industry buildings and transportation needed to achieve the Paris Agreement targets.

Recommendation 3: The Future Gas Strategy provide timeframes for the phases of transition from gas to renewable energy, including the rapid reduction of gas use by 2030 and the full transition away from fossil fuels by 2050.

3. Proposed Government Actions

With a few exceptions, EDO is generally supportive of the proposed Government Actions in the Draft Strategy. Where we are supportive of a proposed action, EDO considers some actions can be strengthened to ensure that the transition from gas to truly renewable alternatives reflects the urgent need to decarbonise lutruwita/Tasmania's economy and provide for a just transition both for workers in gas-reliant industries, and consumers.

EDO's detailed comments responding to each of the proposed actions in the Draft Strategy are set out below.

1. Supporting consumer choice: No mandates or moratoriums against new natural gas connections

Supporting consumer choice in planning for an energy future by not applying mandates or moratoriums against new natural gas connections might appear reasonable at face value, but the Tasmanian Government also has a responsibility to help energy consumers prepare for a low-carbon future.

In some cases, this will mean encouraging and helping industrial and commercial enterprises and the population generally move away from fossil fuels through processes such as Emissions Reduction and Resilience Plans. However, allowing new consumers to connect to gas will likely have the effect of unnecessarily prolonging the transition to other renewable energy options and will ultimately increase transition costs (for example, by allowing additional investment in gas infrastructure or appliances which will have to be replaced or made redundant).[20]

In light of their associated costs and risks, EDO considers that new fossil fuel gas connections should not be allowed. Furthermore, to allow both business and domestic consumers to better plan for the costs involved in the transition to renewable alternatives, EDO recommends that the Future Gas Strategy map out or plan for the expected rate of disconnections to the gas network into the future.

Recommendation 4: Regulations should be introduced to stop any new connections to Tasmania's gas network.

Recommendation 5: The Future Gas Strategy provide a plan for the phased and orderly disconnection to the gas network of consumers by 2030, to allow business and domestic consumers to plan ahead.

2. Continuing to support the development of green hydrogen

The Tasmanian Government is to be encouraged in its support of green hydrogen where it is required as a fuel to satisfy energy demands that cannot be met by electrification. However, the

[20] Climate Council of Australia (2017) *Pollution and Price: the Cost of Investing in Gas,* accessed at https://www.climatecouncil.org.au/resources/price-of-gas/ at p 24.

suggestion of blending hydrogen with natural gas, especially in existing pipeline networks is a backward step that needs to be dropped.

Instead, EDO considers that the focus should be on enabling industries that require gaseous fuels for flash heating, high temperatures, and precision control to move to 100% hydrogen. We have commented above on the importance of locating green hydrogen facilities within industrial hubs to minimise the need for pipelines and related infrastructure that exacerbate gas losses (fugitive emissions) and safety risks.

Recommendation 6: The proposal in the Draft Strategy to blend hydrogen into existing natural gas networks be dropped. Instead, the focus of the Future Gas Strategy should be on providing local sources of green hydrogen as a fuel for industries that are not able to otherwise electrify their processes.

3. Supporting the development of lutruwita/Tasmania's domestic bioenergy and biogas industries

As we have already discussed earlier in this submission, there are considerable issues relating to "bioenergy" and "biogas" as concepts. These terms need to be strictly defined and regulated to ensure it is truly GHG emissions neutral or negative. Therefore, before promoting "bioenergy" and "biogas" as part of the Future Gas Strategy, even if only as short- to medium-term solutions, the Tasmanian Government should establish that any "bioenergy" and "biogas" prospects will deliver a net reduction in GHG emissions, that they are economically and energetically efficient and that they do not otherwise cause environmental harm.

Recommendation 7: The terms "bioenergy" and "biogas" need to be clearly defined in the Future Gas Strategy to ensure that they only cover options that deliver a net reduction in GHG emissions, that are economically and energetically efficient, and that they do not otherwise cause environmental or social harms.

4. National gas reform agenda

In EDO's view, any reforms aiming to allow for low-level blending of hydrogen, biomethane and other renewable gases into existing gas distribution systems and use in gas appliances in Australian businesses and homes are liable to be used by industry for greenwashing and/or extending the life of LPG/LNG when those fuels should instead be phased out.

In any event, the returns for lutruwita/Tasmania from its Government attempting to influence the national gas reform agenda are likely to be small. As an island state with abundant renewable energy, both existing and planned, the Tasmanian Government should instead be focussing its efforts directly on alternatives to fossil fuels where they are required by domestic energy users and cannot be satisfied by electrification.

Recommendation 8: The Tasmanian Government should be extremely cautious in promoting the low-level blending of hydrogen, biomethane and other renewable gases into existing gas distribution systems in Australia, and should ensure that this option is only pursued where it does not prolong the market for fossil fuels or their production.

5. lutruwita/Tasmania's hydrogen regulatory review

EDO supports the Tasmanian Government in its activities to reform the regulatory frameworks applying to the development of a hydrogen industry. Any reform to this sector should ensure that all statutory processes and approvals are subject to clear and strict environmental protections, are open and transparent and allow for public participation and appeal rights.

Recommendation 9: Any reforms to the regulatory framework applying to the development of the hydrogen industry should ensure that all statutory processes and approvals are subject to clear and strict environmental protections, are open and transparent and allow for public participation and appeal rights.

6. Supporting energy efficiency

The Tasmanian Government is commended for its efforts to improve energy efficiency across the board. Assisting in replacing gas appliances with electrical ones —either in residential or commercial settings —is beneficial not only to the decarbonisation pathway but also to community health by removing contaminants in natural gas or its combustion products that damage the respiratory system.[21]

7. Helping vulnerable and low-income users to adjust

Government action to help low-income and vulnerable consumers to decarbonise energy use at the household level is also strongly supported. It assists, too, in making energy more affordable and retains more revenue within the state.

8. Emissions reduction and resilience plans

The Emissions Reduction and Resilience Plans developed for the energy and industrial processes and product use sectors under the *Climate Change (State Action) Act 2008* (Tas) are a pragmatic mechanism to propel GHG emissions reduction in all sections of the economy. Consistent with our previous submissions on the review and reform of the *Climate Change (State Action) Act 2008* (Tas), EDO maintains that to be most effective, these plans need to provide clear sector-based emissions reduction targets. In terms of timeframes, while Emissions Reduction and Resilience Plans must be developed by no later than November 2024,[22] it is critical they are actively and urgently implemented to ensure significant advances along the decarbonisation pathway are not delayed.

Recommendation 10: Emissions Reduction and Resilience Plans prepared under the *Climate Change (State Action) Act 2008* (Tas) for the energy and industrial processes and product use sectors provide ambitious and clear GHG emissions reduction targets, and rapid implementation pathways.

[21] See above a n 3.

[22] See section 5C(3) of the *Climate Change (State Action) Act 2008*. We note this subsection provides a two year timeframe for the development of listed Emissions Reduction and Resilience Plans by reference to the date "this Act" receives Royal Assent. We assume what was intended by the "this Act" for the purposes of that subsection was the *Climate Change (State Action) Amendment Act 2022*, which received Royal Assent on 30 November 2022.

9. The adoption of renewable gases by the Government

Although the replacement of Tasmanian Government fossil fuel boilers (Draft Strategy, p 22) is supported, bioenergy as a substitute fuel needs to be demonstrated as providing viable and real GHG emissions reductions. Such proof should be transparently included in the "baseline emissions inventory assessment" that the Tasmanian Government has committed to providing as part of the Emissions Reduction and Resilience Plan for Government Operations.

Recommendation 11: The "baseline emissions inventory assessment" for the Emissions Reduction and Resilience Plan for Government Operations transparently reports on the GHG emissions associated with proposed fuel substitutes for Government fossil fuel boilers.

10. Working with industry

While EDO supports the Government working with industry to bring about a decarbonised energy system (not just focussing on gas), best practice requires that the Government also openly and transparently engage with energy experts, climate scientists, and other gas consumers (for example community consumer advocates) and the general public concerning these issues. Such broader consultation will ensure that certain consumers are not used to prop up the market for fossil fuels for the benefit of a small minority or for limited public benefit.

Recommendation 12: In addition to working with industry, the Future Gas Strategy commits the Government to engage with energy experts, climate scientists, other gas consumers (including domestic consumers) and the general public to bring about a decarbonised energy system for Tasmania.

11. Reviewing the Future Gas Strategy within five years

EDO supports the review of the Future Gas Strategy every five years at a minimum because the transition to net zero GHG emissions is likely to involve rapid changes in technologies, economics and broader policy frameworks, and Government actions must be routinely reviewed to ensure they are optimised.

We further recommend that the Future Gas Strategy be reviewed in conjunction with the broader consideration of lutruwita/Tasmania's energy strategy because energy policy should be considered holistically and not be distorted by focusing on one fuel type.

Recommendation 13: The Future Gas Strategy be reviewed in conjunction with lutruwita/Tasmania's broader energy strategy because energy policy should be considered holistically and not be distorted by focusing on one fuel type.