

DRAFT BIOENERGY VISION FOR TASMANIA



**CONSULTATION PAPER
SUMMARY OF FEEDBACK**

JUNE 2022

Summary

Eighteen submissions were received (three of which were joint submissions), representing a range of interests across the bioenergy sector. Respondents included environmental groups, investors, industry representatives for bioenergy, regulators, infrastructure providers and individual respondents.

There was broad support for the draft Bioenergy Vision with most stakeholders holding consistent views around key themes such as decarbonisation, waste management, sustainability and the importance of education. Some stakeholders however did not support the approach of the Bioenergy Vision, particularly in relation to issues such as the inclusion of forest biomass (particularly native forest) in bioenergy production.

Individual submissions

1. Bob Brown
2. Robert Rands
3. Harrison Vermont
4. Alistair Graham
5. Dr Heather Keith and Prof Brendan Mackey joint submission.
6. David Schaller
7. Mark Love
8. Ron Goldschlager
9. Rob Douglas

Organisation submissions

1. Environmental Paper Network, Australian Forests and Climate Alliance inc., and The Bob Brown Foundation joint submission.
2. Wilderness Society
3. Environmental Protection Authority (EPA)
4. Tree Alliance; Private Forests Tasmania
5. BOC and Optimal Renewable Gas (ORG) joint submission.
6. Climate Tasmania
7. TasWater
8. Bioenergy Australia
9. Confidential submission

Key themes from stakeholder feedback

1. Key drivers for the Bioenergy Vision

Decarbonisation

The majority of stakeholders agreed that the principle driver for the development and adoption of bioenergy is decarbonisation. Stakeholders agreed that bioenergy could play an important role in the transition of Tasmania's energy sector, especially in hard to abate sectors such as industrial heat, transport fuels and replacing natural gas in the gas networks and behind the meter.

Waste management benefits of bioenergy

Stakeholders agreed that the waste management benefits of bioenergy is another key driver. Bioenergy can achieve significant waste management benefits particularly when feedstocks that can be anaerobically digested are used to produce biogas and bio-methane which can displace natural gas and when the structure of the supply chain ensures there is a maximum diversion of waste to anaerobic digestion.

2. Education on bioenergy

The majority of stakeholders recognised that the need to educate the community on bioenergy is critical particularly given the significant concerns held around forest based bioenergy production. Stakeholders suggested there was a range of issues and misconceptions that should be addressed including explaining the similarities/differences between fossil fuel use and bioenergy use (e.g. combustion and greenhouse gas generation). Similarly, there was concern around the perception of stack emissions and odour, when in fact, they are at low levels in modern bioenergy facilities.

Stakeholders also identified that there is a lack of understanding of the options available in bioenergy technologies hampering the adoption of bioenergy. In order to improve bioenergy uptake education of specifiers and the market about bioenergy options is required. Improving knowledge sharing within the market will also be important to the development of the industry.

3. Sustainability

Stakeholders identified the importance of sustainability in the bioenergy industry. Given bioenergy is only a renewable energy source if the feedstocks are produced sustainably, the industry must be able to demonstrate its sustainability both in its generation and, to the extent it is possible, across the whole supply chain. Some stakeholders highlighted the challenges associated with the use of forest biomass in bioenergy generation and sustainability in circumstances where some stakeholders will not accept that any native forest, and perhaps any forest biomass, is sustainably produced or can be used to mitigate climate change.

4. Role of Government

Many stakeholders saw a role for government in supporting the establishment of a bioenergy industry in Tasmania. A range of support measures were suggested including financial support for new bioenergy facilities and the infrastructure needed to develop efficient supply chains. Stakeholders also saw a need for guidance from government in areas such as how by-products are used such as digestate from anaerobic digestion. Many stakeholders identified that a waste levy would be an effective market mechanism, especially where some of the funds generated were used to invest in bioenergy options to divert organic waste from landfill. There was strong support around the \$100 000 in the Tasmanian Budget to identify where government can switch to bioenergy. Finally, some stakeholders recognised that the Tasmanian Government will need to work with the Australian Government to achieve some national level standards, targets and policies.

5. Lack of clarity around bioenergy's role in the broader energy strategy for Tasmania

Most stakeholders agreed that it was not clear how bioenergy fits within the Government's broader energy strategy. Stakeholders suggested that there is no clear pathway for the deployment of bioenergy and uncertainty around the role government sees bioenergy playing in meeting our future energy needs. Given the many renewable energy generation, there is limited direction on how it will fit within Tasmania's renewable energy mix. Stakeholders argued that to decarbonise Tasmania's economy, bioenergy is well positioned to achieve this, however there is no identification of its strengths and weaknesses compared to other renewable energy sources and its potential role in the transition.

6. Biogas injection into the gas network

Many stakeholders saw the injection of biomethane into our natural gas networks as a key opportunity to address both organic waste issues and to decarbonise the gas networks and a key opportunity to drive the establishment of a bioenergy industry (strong support from TasWater and the EPA). Stakeholders identified the need for Government support to bridge the price gap between biogas and natural gas in the interim. The potential for Government to assist the supply chain to collect more suitable waste and reduce transport costs was also highlighted along with setting targets and requirements to consume renewable gas for energy generation.

Response to Tasmanian Bioenergy Vision suggested questions

Question	Feedback
<p>1. What changes, if any, would you suggest to the draft Bioenergy Vision?</p>	<p>Stakeholders held a range of views on what the key areas of focus should be for the Bioenergy Vision. Many stakeholders agreed that the Bioenergy Vision should have a greater focus on the need for incentives to divert waste from landfill, including to bioenergy. Some stakeholders suggested there should be a greater focus in the Vision on pellet production to displace domestic wood heaters and fossil fuels used in industrial processes, identifying both renewable energy and environmental benefits.</p> <p>Many stakeholders supported including the production of biomethane from liquid organic waste. A stakeholder suggested that landfill gas, which contains biomethane, be included in the vision. Some stakeholders sought greater inclusion of non-organic waste or the production of non-energy products in the Vision such as biochar and high value chemicals from waste organics. The draft Vision notes the potential for organic waste to produce higher value products and states ‘Bioenergy should foster and not prevent waste reduction, recovery, repurposing, and recycling enabling the “highest value” should be sought for organic material’.</p>
<p>2. What are the key roles for the Tasmanian Government to support bioenergy?</p>	<p>Many stakeholders identified the need for creating incentives as a key role for the Tasmanian Government to support bioenergy. Incentives identified included increasing the waste levy and diverting levy funds to support bioenergy, placing a levy on land-spreading of organic wastes, grants, co-funding approaches, legislative targets and clear policies and mechanisms for bioenergy adoption and use.</p> <p>Stakeholders also recommended alignment with the Australian Bioenergy Roadmap that has a focus on biogas production for grid injection or behind the meter use, production and use of industrial heat and transport fuel from biomass. Many stakeholders saw the need for the Government to fund education about bioenergy and support supply-chain development to allow greater use of waste/residue organics for bioenergy production, including bio solids and specific sector wastes as critical.</p>
<p>3. What are the key roles for households, industry, and other levels of government to support bioenergy?</p>	<p>Stakeholders identified that bioenergy can be installed at the household level (anaerobic digesters to pellet heaters) and that households have a role to undertake waste separation such as placing food waste into a separate food waste bin for collection.</p> <p>Stakeholders suggested industry should focus on reducing greenhouse gas emissions and implementing circular economy principals.</p>

	<p>Stakeholders identified the need to educate households on bioenergy options available to households (e.g. pellet fires and small scale anaerobic digesters) and how households assisting with waste separation can allow household organic waste to be more easily used to generate bioenergy.</p>
<p>4. What do you think could be done to appropriately accelerate the uptake of bioenergy in Tasmania?</p>	<p>Stakeholders identified the opportunity for bioenergy to generate a range of energy types, including but not limited to electricity, as a possible pathway that could accelerate the uptake of bioenergy. The need to educate businesses and the public about the many options in bioenergy technology is also key to accelerating the industry.</p> <p>Stakeholders identified the need to regulate energy consumption to include mandatory renewable energy and bioenergy requirements where appropriate and to require environmental, greenhouse gas mitigation and economic impact studies to identify the best waste management and energy production options.</p> <p>Stakeholders observed an unfamiliarity with bioenergy and higher initial CAPEX costs of transitioning to bioenergy creating uncertainties and risks that could be overcome by Government support for bioenergy developments. Stakeholders identified introducing bioenergy during equipment replacements and upgrades as a key opportunity. Stakeholders suggested Government could use funds earned from waste levies and land-spreading levies to support bioenergy and divert waste organics to bioenergy.</p>
<p>5. What are the key opportunities for bioenergy in Tasmania? What can be done to realise these opportunities?</p>	<p>Many stakeholders identified the opportunity to generate energy from waste streams as a key opportunity for bioenergy. Stakeholders suggested non-organic waste such as plastics and car tyres be included in energy production to allow greater resource efficiency and energy self-sufficient outcomes.</p> <p>Stakeholders identified that Tasmania could displace a large proportion of natural gas used in Tasmania with bio-methane and that incentives for bioenergy production (to divert waste to anaerobic digestion and to using biogas and bio-methane) will be needed to achieve this.</p>
<p>6. What are the key challenges for bioenergy in Tasmania? What solutions do you see for these challenges?</p>	<p>Stakeholders identified that a lot of work and funding will be required to implement the Bioenergy Vision. Stakeholders suggested that the delivery of the work program would likely require significant work within Government and Government support for new equipment, supply chain development and education is needed. Multiple stakeholders identified the requirement for incentives to produce and consume bioenergy, including to divert organic waste to bioenergy production. Stakeholders identified the need to assist individual industries, and the waste-water management industry to generate bioenergy by helping to develop an efficient supply</p>

	<p>chain for organic waste to bioenergy facilities. Many stakeholder identified the need for a supporting regulatory framework for anaerobic digestion that allows by-products such as digestate to be used and sold as a soil amendment.</p> <p>Many stakeholders identified issues and challenges with bioenergy generally and making energy from forest biomass, and in particular native forest biomass. Many stakeholders indicated they did not support the forest industry where trees are cut down. Stakeholders were concerned that timeframes to regrow trees to re-absorb carbon emitted by bioenergy use were too long to respond to climate change, that forestry is not sustainable so bioenergy from forest biomass is also not sustainable. Stakeholders argued that bioenergy is not renewable as it burns biomass and produces greenhouse gasses and argue that bioenergy generates higher emissions compared to other fuel sources when used for energy generation, especially electricity. There is concern that large bioenergy plants will drive demand for large amounts of biomass not best suited for bioenergy production.</p> <p>Many stakeholders identified that the lack of understanding of bioenergy technology across business and the community is a challenge and this will need to be addressed through greater education. Stakeholders identified the costs of implementing bioenergy to be high, and potentially prohibitive, and Government will therefore need to consider financial support to overcome this. A further challenge is the lack of knowledge of bioenergy in the marketplace which is limiting the uptake of potential bioenergy solutions by industry and this will need to be addressed.</p>
Other feedback	<p>A stakeholder identified that the Bioenergy Vision emphasises larger projects requiring significant investment and recommended that greater emphasis be given to opportunities associated with smaller bioenergy installations with lower budget and simpler supply chains that are less risky.</p> <p>A stakeholder observed that bioenergy has been identified by the forestry sector as a potential new market for forest products, most recently in the Strategic Growth Plan for Tasmania’s forests, fine timber and wood fibre industry. Bioenergy remains a substantial unrealised potential in the forestry sector, particularly for forest thinning’s and harvesting residues but it is also critical for forest growers to have diverse and robust markets for harvest residues to make forestry a competitive land use. Further, it is important that the forest industry shares greenhouse gas mitigation and job creation goals of bioenergy. It was suggested that examples be added of where bioenergy has earned Australian Carbon Credit Units to the Bioenergy Vision.</p>

	<p>The EPA's contemporary environmental assessment, approval and ongoing regulatory framework under <i>the Environment Management and Pollution Control Act 1994 (EMPCA)</i> support bioenergy. The EPA indicates how bioenergy is likely to be assessed, indicating that future bioenergy projects do not present a significant challenge to the EPA in terms of assessment, approval or regulation. The EPA encourage open and early communication with proponents.</p> <p>Stakeholders suggested that the Bioenergy Vision was not neutral in its development. It was initially developed with bioenergy supportive stakeholders and did not include views from those who may oppose bioenergy thus overlooking the outcome where no bioenergy vision be developed.</p> <p>Stakeholders identified that the Government has no framework for bioenergy to contribute to, or justification for why it was done. Stakeholders indicated there is no similar visions for other renewables, or analysis of where bioenergy would have a role among other renewables for renewable energy production or for waste management, among other methods or approaches to manage waste.</p> <p>Stakeholders identified the lack of an indication of the potential energy production from bioenergy by energy type and source of organic feedstocks.</p>
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