

Climate Tasmania Response to the draft Tasmanian Renewable Energy Action Plan

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About Climate Tasmania

Climate Tasmania is a voluntary group of concerned professionals in Tasmania who have a diverse range of expertise, spanning scientific, legal, economic, health, social and policy aspects of climate change. The group aims to provide timely, independent and authoritative advice to the Tasmanian government, businesses and the community on climate change and appropriate policy responses. (<https://www.climatetasmania.org/>)

The need for comprehensive action on climate change

Climate Tasmania's response to the draft Plan is based on the overwhelming scientific evidence that climate change is unequivocal and that anthropogenic greenhouse gas emissions are the dominant cause of observed warming.

"Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen." IPCC 2014, p.2

"Anthropogenic greenhouse gas emissions have increased since the pre-industrial era, driven largely by economic and population growth, and are now higher than ever. This has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years. Their effects, together with those of other anthropogenic drivers, have been detected throughout the climate system and are extremely likely to have been the dominant cause of the observed warming since the mid-20th century." IPCC 2014, p.4

Urgent action is required to avoid severe, pervasive and irreversible impacts for people and ecosystems.

"Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks." IPCC 2014, p.8

"Without additional mitigation efforts beyond those in place today, and even with adaptation, warming by the end of the 21st century will lead to high to very high risk of severe, widespread and irreversible impacts globally." IPCC 2014, p.17

As the IPCC points out, options for reduction of greenhouse gas emissions exist in all sectors of the economy.

"Mitigation options are available in every major sector. Mitigation can be more cost-effective if using an integrated approach that combines measures to reduce energy use and the greenhouse gas intensity of end-use sectors, decarbonize energy supply, reduce net emissions and enhance carbon sinks in land-based sectors." IPCC 2014, p.28

The draft Plan, despite its name, is predominantly about the use of renewable sources of electricity rather than in other sectors of the economy. We believe that hydro and renewable energy sources such as solar and wind power, and environmentally appropriate biomass sources can play an important part in meeting the challenge of moving away from dependence on fossil fuels, such as coal, oil and gas – a key goal in the decarbonisation of the Tasmanian

economy and infrastructure. In principle, we support the development of longer-term planning, R&D, and investment in appropriate renewables technology. However, we are concerned the current roadmap is inadequate and does not provide a fully informed and developed basis for community consultation.

We note that most of Tasmania's electricity is already from renewable sources, it is other sectors of the economy that pose the greatest challenges and require the most effort and the Plan should acknowledge this.

The International Energy Agency, in its recently released Energy Technology Perspectives states:

"Transforming the power sector alone would only get the world one-third of the way to net-zero emissions." IEA 2020, p.24

There are many examples in the draft Plan where the use of "renewable energy" might or might not be intended to only refer to renewable electricity, and where that distinction makes a great deal of difference in the scope and value of the Plan's proposals. The discussion of the proposed Renewable Tasmania which starts on page 20 of the draft Plan is an example. If the proposed Renewables Tasmania is only to deal with electricity, then it could be valuable, but not a leading-edge, transformative proposal. If instead the intention is for Renewables Tasmania to deal with the transition of all forms of energy use to renewables in all sectors of the economy, then its scope, value, and importance is much increased. Indeed, an effective Renewables Tasmania with an all-energy, all-sectors remit could approach in function that of the Energy Transition Authority that Climate Tasmania proposes for the Climate Change (State Action) Act (Climate Tasmania 2019).

Timeline and objectives for net zero emissions

Climate Tasmania welcomes the commitment in the draft Plan to "conduct a detailed analysis of the pathway Tasmania would need to take to achieve a target of net zero emissions prior to 2050" (p.10)

We recognise that the Tasmanian Renewable Energy Action Plan will be only one part of achieving this objective and that it sits in the context of the proposed amendments to the Climate Change (State Action) Act 2008 and the development of the state's next climate change action plan for 2021 onwards.

Climate Tasmania does not support the assumption in the draft Plan (implicit in the statement "we are also one of the lowest net emitters of carbon dioxide on the planet, having reduced emissions by 95 per cent from 1990 levels") that net zero emissions can be achieved by relying on anticipated emissions draw down from land use, land use change and forestry (LULUCF) to offset increased emissions in other sectors.

We believe that the net zero emissions goal should be implemented in each sectors of the economy (electricity generation, commercial and industrial energy use, agriculture and transport). The reasons for this include:

- LULUCF emissions are subject to large uncertainties and methodological challenges.
- The drawdown from forest regrowth is a short term benefit which cannot be relied upon to continue.
- The increased risk of large areas of wildfire resulting from climate change mean that forestry policy alone is not a reliable source of emissions reduction.
- The emissions reduction challenges in each sector are different. Reaching net zero emissions will require targets and plans specific to each sector.
- The jobs and investment opportunities arising from developing new technologies will arise mainly from new approaches to sectors such as transport, industrial processes and minerals processing (as well as the opportunities in electricity generation and possibly hydrogen based industries identified in the draft Plan).

Sectoral plans and mechanisms

The draft plan does not discuss what mechanisms would be best used to encourage a transition to total reliance on renewable energy sources.

For electricity the general implication is that the building of Marinus and a legislated target will encourage private sector investment in renewable electricity generation.

Other jurisdictions (notably the ACT – see Mazengarb 2020) have used reverse auctions as a way of increasing the supply of renewable electricity in a way which is more transparent and ensures that new supply is obtained in the most cost effective way.

For transport the draft Plan mainly talks about electric vehicles with some focus on hydrogen for heavy vehicles. There is nothing about increasing public transport, active transport or planning and other social changes (eg working from home) to reduce the need for transport.

Tasmania has a significant mining industry. Recent developments in minerals processing, including the use of hydrogen in both aluminium and steel production highlight the opportunities for the development of renewable energy strategies in this sector.

All sectors require dedicated government led plans which focus on integrated offsets and reductions, not just targets with long lead times. The development of these plans should be based on informed community acceptance and independent expert input.

It is a truism of energy policy that the cheapest, cleanest source of energy is the energy not used. A plan for net zero emissions should include a strong focus on energy efficiency.

In summary

In summary, Climate Tasmania believes that the final version of the Tasmanian Renewable Energy Action Plan should:

- contain an explicit acknowledgement that moving to net zero carbon emissions requires actions of all sectors of the economy as well as addressing forestry and land use policies,
- provide background data on Tasmania's greenhouse gas emissions by sector and by comparison with the rest of Australia,
- propose trajectories and targets to reach net zero emissions in each sector of the economy,
- include discussion and recommendations on the challenges in increasing renewable energy in each sector of the economy, and
- provide for greater transparency and community engagement which is properly informed and resourced.

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