

Tasmanian Climate Change Office  
Department of Premier and Cabinet  
HOBART TAS 7001

Antarctic Climate & Ecosystems CRC  
University of Tasmania

7<sup>th</sup> November, 2018

### **Submission - Proposed Amendments to the Tasmanian Climate Change Act 2008**

**Key recommendation: An emissions target of zero net emissions by 2030, with an aspiration to become a sink by 2050.**

The Antarctic Climate & Ecosystems CRC (ACE CRC) is Australia's primary research organisation for understanding the role of the Antarctic region in the global climate system.

ACE CRC hosts the Climate Futures team which works in close consultation with industry and government agencies around Australia to develop fine-scale climate projections to support operational decision making. The Climate Futures for Tasmania project produced the Tasmanian government's most important source of climate change data at a local scale. At its release, the study was the highest resolution long-term climate modelling study of future risk ever produced in Australia. New simulations have recently been completed to update the data and assess the Tasmanian data in the context of all other available climate projections.

The Climate Futures team bridges the gap between fundamental climate science and the local adaptation needs of Australian industries, government agencies and communities. We provide information on climate change and its impacts on Tasmania's weather, water catchments, agriculture and climate extremes to assist government and other end users make decisions that take account of the risks posed by climate change. Our work draws on the collective expertise of world-leading climate scientists from across multiple agencies, including advisors to the Intergovernmental Panel on Climate Change (IPCC).

Climate change is the most important challenge our society currently faces, and its impacts are already being felt in Tasmania. Climate change can no longer be thought of as an environmental problem, or a problem of the future.

The Tasmanian Climate Change Act should include a commitment to 1.5°C in its objectives, recognising the serious threat posed by further warming and the urgent need for action.

We support the new emissions reduction target of zero net greenhouse gas emissions by 2050. The proposed target is essential to support national and international attempts to limit global warming to 1.5 °C and would put Tasmania in line with other states (South Australia, Victoria and New South Wales) and the Australian Capital Territory (ACT), which have legislated to achieve zero net emissions by 2050.

However, given Tasmania's recent achievements in reducing emissions on paper, a more ambitious target of zero net emissions by 2030, with an aspiration to become a sink by 2050, would be more impressive. This could be achieved through improved soil and land management and shifting to renewable energies, among other approaches, with many associated benefits. Tasmania is already being impacted by more frequent and severe extreme events such as fire and flooding. The sooner emissions are mitigated, the sooner this acceleration will be slowed, with enormous benefits and cost savings. With our water and forest resources, Tasmania has the potential to lead Australia in this area.

Interim targets should be included to ensure that Tasmania is on track to achieve the target. Given that most of Tasmania's emissions reductions can be attributed to the land use, land-use change and forestry (LULUCF) sector, in particular to changes to forest management, further emissions reductions should be pursued in other key sectors in which emissions have either grown or only contracted slightly in recent years, such as in energy, agriculture and industrial processes. Industry specific targets should be developed for these sectors.

Relying too heavily on LULUCF and forest management to achieve the target is risky, particularly in light of recent research that suggests that fire danger will continue to increase across Tasmania and the window for prescribed burning will decline (Harris et al. 2018).

Tasmania should include in its accounting the emissions associated with the importation and export of electricity.

We commend the intention for the Act to provide a framework for decision makers to consistently consider climate change. We support the recommendation that climate change be considered in all government decision making, particularly in key policy areas such as population growth, land use planning and energy. Effective adaptation will require consideration of such changes across longer time frames than is currently common, and in many cases will require efforts to be co-ordinated across State agencies and Departments. We agree that an adaptive management framework to inform climate change action will be essential to avoid maladaptive responses. The provision of a clear set of expectations for decision making on climate change should emphasise the need for adaptation to be flexible and responsive.

Amendments to the Act are required to strengthen the ability to drive meaningful change, not only in mitigating emissions, but in adapting to the impacts of climate change. The principle of basing decisions on the best available science should be stated first and foremost, as all other principles and action should flow from there. Tasmania is in an excellent position to apply climate change projections to understand regional trends in climate and impacts on communities, assets and infrastructure.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'RM', followed by a period.

Submitted by Drs Rebecca Harris and Tom Remenyi, on behalf of the Climate Futures team

### **References**

Harris, R. M. B., T. Remenyi, P. Fox-Hughes, P. Love, and N. L. Bindoff. 2018. An assessment of the viability of prescribed burning as a management tool under a changing climate. A Report for the National Bushfire Mitigation – Tasmanian Grants Program (NBMP).