

A submission on the Tasmanian Government's draft *Climate Action Plan*

Prepared by the
Tasmanian Policy Exchange,
University of Tasmania

www.utas.edu.au/tpe

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Acknowledgement of Country

We acknowledge the palawa/pakana of lutruwita, the traditional owners of the land upon which we live and work. We pay respects to Elders past and present as the knowledge holders and sharers. We honour their strong culture and knowledges as vital to the self-determination, wellbeing, and resilience of their communities. We stand for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language, and history.

About the Tasmanian Policy Exchange

The Tasmanian Policy Exchange (TPE) was established in 2020 to enhance the University's capacity to make timely and informed contributions to policy issues and debates which will shape Tasmania's future.

The TPE works with government and community partners to identify and address significant issues where the University can make a positive impact on Tasmania's future. It also works with staff from across the University of Tasmania to develop evidence-based policy options and longer-term collaborations.

The Tasmanian Policy Exchange's climate and energy-related work

- [Tasmania's Renewable Energy Future: Submission to the Draft Tasmanian Renewable Energy Action Plan](#), September 2020
- [University of Tasmania Submission to the Draft Renewable Energy Coordination Framework](#), March 2021
- [A Blueprint for a Climate-Positive Tasmania: Submission to the Review of Tasmania's Climate Change Act and Climate Action Plan](#), April 2021
- [Towards a Climate-Positive Tasmania: A Discussion Paper](#), October 2021
- [Submission to the Climate Change \(State Action\) Amendment Bill 2021](#), November 2021
- [Tasmanian Greenhouse Gas Emissions Update: Annual progress report for the 2020 reporting year](#), August 2022

Acknowledgments

This submission draws on the work of 24 of our University of Tasmania colleagues who contributed to the [Blueprint for a Climate-Positive Tasmania](#).

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1. Context

The University of Tasmania is deeply committed to ambitious and urgent climate action. The University was recently rated in the [Times Higher Education Impact Rankings](#) as the number one university in the world on climate action. We have deep expertise across a range of relevant subject areas, including renewable energy systems, low-carbon farming and climate risk and adaptation. As an organisation, the University of Tasmania is committed to sustainability education and practice and has been certified carbon neutral since 2016, has moved away from carbon-intensive investments, and is committed to reducing gross emissions by 50% by 2030. In particular, the University has committed to significantly reducing embodied carbon in construction processes (see the submission of Corey Peterson – Chief Sustainability Officer of the University of Tasmania) and sees this as an areas in which Tasmania could take the lead.

The International Panel on Climate Change's (IPCC) recently released [Synthesis Report](#) concluded that we are facing a climate emergency that demands urgent global and local action. The Report argues that in the absence of 'deep, rapid and sustained reductions in greenhouse gas emissions', global warming of 2.7 degrees above pre-industrial averages by 2080 is expected (SSP2-4.5), which is likely to result in catastrophic environmental, social, and economic impacts. There is now broad-based agreement that there is a pressing need for deep, rapid, and sustained emissions reduction while helping communities and industries prepare for the impacts of unavoidable climate change.

Given the urgency and magnitude of the climate emergency we are confronting, this brief submission endorses the aims and objectives of *Tasmania's Draft Climate Change Action Plan* **but argues that the plan must be more urgent and ambitious**. It has now been over three years since then Premier Peter Gutwein announced a review of Tasmania's *Climate Act* and the associated *Climate Action Plan*. Now we must focus on quickly implementing an ambitious whole-of-government and community strategy to reduce absolute emissions across the entire Tasmanian economy, while preparing for the unavoidable impacts of climate change.

Tasmania still has an opportunity to leverage its abundant renewable energy assets to reduce absolute carbon emissions across all industry sectors. The development and application of low- and zero-carbon technologies and processes is an environmental imperative and will also enhance Tasmania's reputation as a climate leader. Ambitious decarbonisation will also yield economic dividends by driving investment and employment and future proofing the Tasmanian economy in an increasingly carbon-conscious world.

We outlined the case for a comprehensive and ambitious climate strategy in our previous [submissions](#), and are pleased that many of the recommendations made in these submissions, including the development of ERRPs for major industry sectors, have been incorporated into the *Draft Climate Action Plan*.

However, reflecting the severity of the climate crisis we are confronting, and significant national and international developments over the past 18 months, more aggressive action is necessary. These developments include:

International Developments

The rapid intensification of decarbonisation initiatives among our major trading partners and global corporations provide opportunities for low carbon innovation, and pose risks to existing carbon intensive industries:

- The *Inflation Reduction Act (IRA)* in the USA – this has been called by the [World Resources Institute](#) ‘the largest single step’ that the US Congress has ever taken to address climate change, including nearly \$370 billion in investments in disadvantaged communities, prioritising projects that repurpose retired fossil fuel infrastructure and employ displaced workers, and setting the country on course towards ‘a fair, equitable and economic clean energy transition’.
- The EU Green Deal, which aims to reduce GHG emissions by 55% by 2030. Part of this deal is the [Carbon Border Adjustment Mechanism \(CBAM\)](#), which will come into effect in October this year. The CBAM will initially apply to products which are most carbon intensive such as cement and steel and will essentially see the exporter or producer of these products charged with a carbon tax. [It is expected](#) that other jurisdictions (including the USA with its [Clean Competition Act](#)) will also start to implement measures similar to the CBAM.
- The increasing [tightening of ESG standards](#) and scrutiny of the [integrity of offsets](#) illustrates the greater focus on emissions reduction.

National Developments

- Over the past 12 months the Commonwealth has committed to targets in an effort to tackle climate change with: 1) a renewable energy generation estimation of [82% by 2030](#), and 2) [43% reduction in emission by 2030 from the 2005 baseline](#).
- The reformed [Safeguard Mechanism](#):
 - Will likely require the six Tasmanian industrial facilities included in the Safeguard framework (see page 8 below for discussion of industrial processes) to prepare comprehensive and independently assessed emissions reduction plans before the end of the year to be eligible for concessions or CER
 - Will see a legislated cap on annual GHG emissions for covered facilities which will be reduced by 4.5% per annum, through to 2030.
 - Will require covered facilities to justify their use of offsets to the CER if they use 30% or more offsets to cover their baseline emissions
 - Will incentivise on-site abatement over the use of offsets
- Reviews of offsets, LULUCF methods and reporting are also likely to occur in the future.

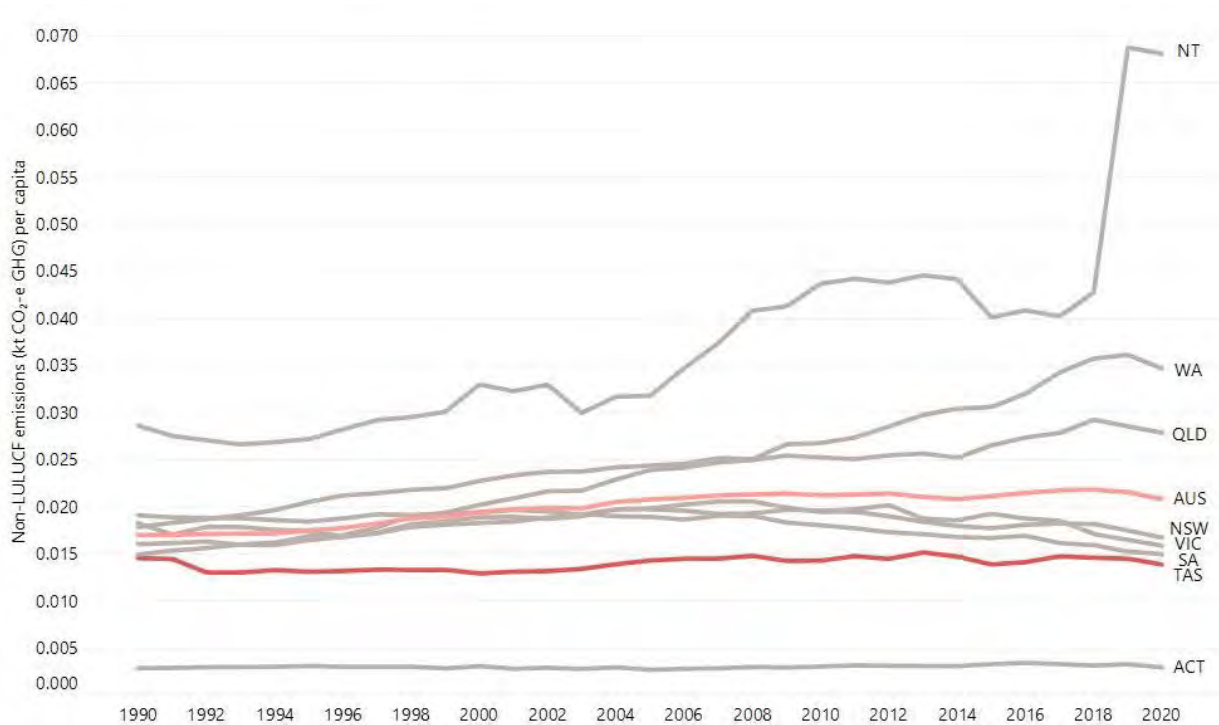
Developments in other states

Other Australian states are making a larger per capita investment in decarbonisation and, as a result, their emissions intensity is declining more quickly than that of Tasmania. While

mainland states have the ‘advantage’ of being able to reduce emissions by phasing out fossil fuels from electricity generation, in many cases they are also reducing emissions from other sectors more rapidly than Tasmania. For example:

- [NSW](#) has a target of reducing GHG emissions by 70% by 2035. The former [Treasurer has stated](#) that NSW can be ‘the engine room of the low carbon global economy’ and has announced almost \$8 billion to be spent on building critical infrastructure to connect NSW renewable energy generators to the national energy grid.
- [South Australia](#) has a target of reducing greenhouse gas emissions by more than 50% below 2005 levels by 2030. 20 years ago, South Australia’s per capita emissions were 41.5% higher than Tasmania’s, but have been steadily coming down and are now only 8% higher than ours (see chart below).

Figure 1: Per capita emissions (excluding LULUCF) by state, 1990-2020)



Key message

While we absolutely welcome the *Climate Action Plan*, we recognise that aggressive emissions reduction is not only an environmental imperative but, with a strategic, whole of community focus, presents a significant economic opportunity for Tasmania. However, this window of opportunity is rapidly closing, necessitating great commitment to and investment in climate action and innovation in Tasmania. Aggressive emissions reduction should be central to our state’s mission, brand and economic development strategy and every investment and infrastructure decision that is made.

Tasmania's next *Climate Action Plan* (and associated Emissions Reduction and Resilience Plans) provides an important opportunity to establish Tasmania as an innovator and leader in decarbonisation and climate action.

The challenge of transitioning to low- and zero-carbon energy sources and processes must be embraced in an equitable and determined way. Addressing climate change will transform how we live as a society and how our economy operates. With an ambitious and pro-active approach drawing on Tasmania's assets, expertise, and growing community-wide commitment to change, Tasmania can become an example to the world on climate action and sustainability.

2. Priorities for sectoral decarbonisation plans

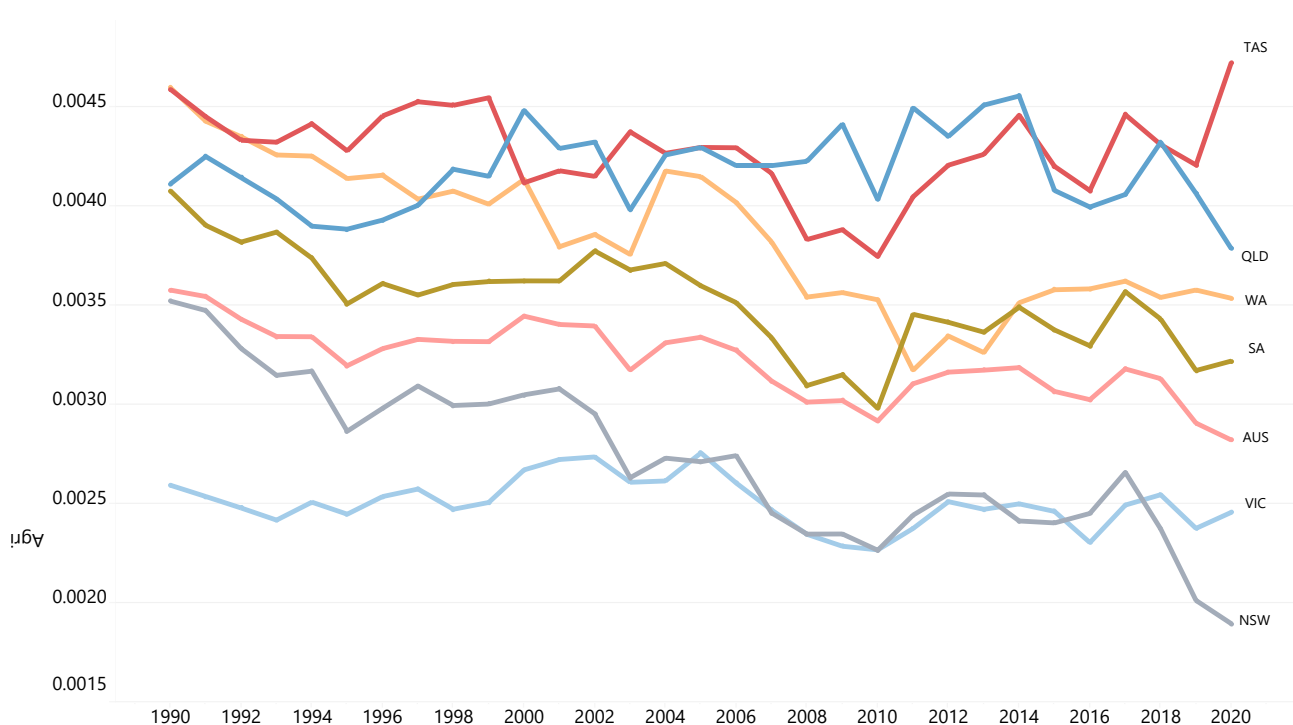
While we welcome sectoral plans (ERRPS) and look forward to working with industry, the community, and the Tasmanian Government on their development and implementation, greater urgency and investment is required. The proposed timeline for the development and implementation of the plans is too slow – **all plans should be finalised and implemented by 2024 to achieve a vital material reduction in sectoral emissions by 2030**. Developing an emissions reduction plan for the industrial sector should now be a particular priority given the opportunities and obligations created by the Safeguard Mechanism.

High level sectoral priorities

Agriculture

Tasmania has experienced a boom in agricultural productivity and production in recent years with the value of agricultural output increasing by 70 percent over the last decade. Growth in the sector is expected to continue and Tasmania has a [target to increase the farm gate value of agriculture to \\$10 billion per year by 2050](#) (it was worth \$2.34 billion in 2020-2021). While the carbon intensity of farming has declined in recent years, this hasn't been sufficient to counter the significant growth in the sector resulting in a 20.7 per cent increase in agricultural emissions over the last decade. Tasmania now has the highest agricultural emissions per capita in Australia.

Figure 2: Per capita emissions from agriculture by state and territory, 1990-2020



The growth and importance of agriculture to the Tasmanian economy and community underscores the need to aggressively reduce emissions from agricultural production. Not

only will this help ensure the sustainability of the sector but will also promote new innovations, programs, and investment.

Our immediate priorities are to ensure that Tasmania continues to lead in the development, production, and use of Asparagopsis in open grazing systems, significantly reducing methane emissions from ruminant stock. Developing this value chain in Tasmania can serve as the basis for a new low-carbon industry.

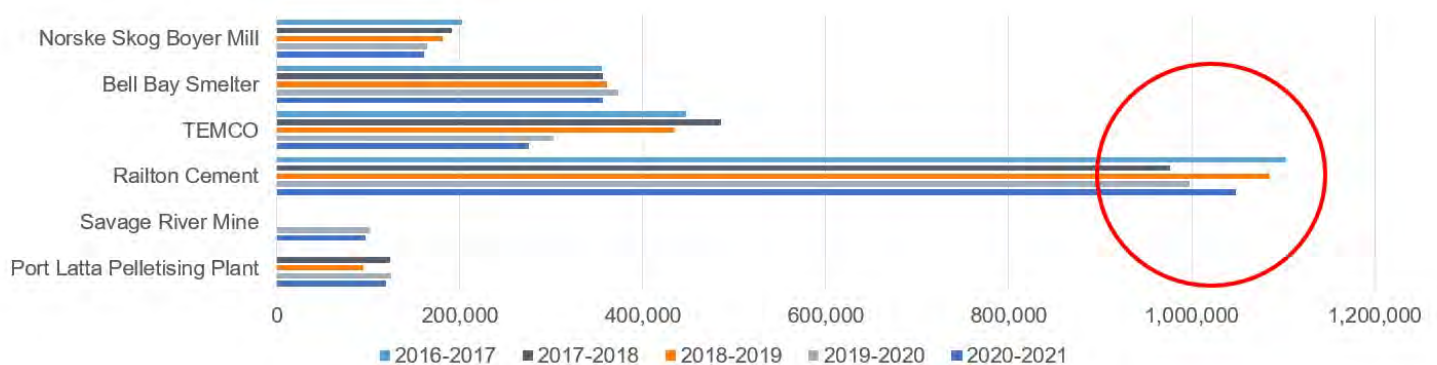
Other priorities include reducing the use of diesel on-farm, the use of low-carbon fertilisers, and promoting forest and land management to maximise carbon storage. The Tasmanian Government should continue to support farmers to monitor and analyse their emissions and gain recognition for initiatives and practices that reduce carbon pollution.

Industrial processes

Our per capita industrial emissions are the highest in the – in fact more than double the national average largely due to the scale of cement production at Cement Australia’s Railton Plant.

Six operations are subject to the Safeguard Mechanism and will have to develop detailed independently assessed emissions reduction plans within the next 12 months in order to be able access offsets or funding under the CEF scheme.

Figure 3: Safeguard Mechanism data – reported covered emissions for Tasmanian companies, 2016-2021



Our most significant near-term emissions reduction opportunities in this sector are modernising cement productions and using green hydrogen in industrial processes such as smelting aluminium and ferromanganese.

Transport

While Tasmanian transport emissions are relatively low compared to other states, the transport sector still represents a major and relatively low-cost emissions reduction opportunity. The transport sector comprises 21 percent of Tasmania’s GHG emissions. The majority of our transport emissions – around 41 percent – are produced by cars. Compared to our mainland counterparts, Tasmanians have older cars (13.3 years old compared to the

Australian average of 10.6 years old) and are more car dependent (Tasmanians own 0.93 cars per capita compared to the Australian average of 0.78).

Transitioning to electric vehicles is one of the best ways to reduce emissions quickly, at a reasonable cost, using readily available technology. Tasmania's rate of zero-emissions vehicle (ZEV) ownership is currently the second lowest in the country. Tasmania should therefore develop an innovative and equitable incentive scheme to improve the affordability of EVs and provide low- or zero-interest loans for the purchasing of ZEVs; expand the rollout of charging infrastructure; and introduce ZEV car-sharing models.

Tasmania can and should aim for 67% of new passenger vehicle sales to be ZEVs by 2030, and 100% by 2035. To provide certainty for businesses and the community, Tasmania should also commit to banning the sales of new ICE vehicles after 2035, in line with more ambitious jurisdictions elsewhere.

However, increasing our uptake of ZEVs will only get us so far. Achieving the required emissions reductions in Tasmanian transport will require a two-pronged strategy of promoting electric vehicle uptake **and** reducing car dependence. Tasmanians are likely to remain heavily dependent on private cars unless there is a commitment to improve services and infrastructure, and to address the underlying social and cultural factors that prevent behavioural change. Some strategies that should be implemented to promote fair and equitable behavioural change include increasing access to public and active transport (such as through economic incentives or infrastructure upgrades), encouraging remote working (where appropriate) to reduce the need for commuting, and rethinking urban planning strategies to emphasise urban consolidation.

Energy

Tasmania's low non-transport energy emissions are mostly due to our hydro-electricity and growing wind generation assets. While Tasmania is able to be 100% self-sufficient in renewable energy, the connection to the national energy market via Basslink complicates claims of being 100% renewable. Indeed the [emissions intensity factor](#) for 2021-22 is 0.16kg of CO₂-e per kwh, which means the effective emissions associated with electricity consumption in Tasmania during the financial year 2021-22 was approximately 1.76 mt.

Beyond emissions associated with electricity generation, significant quantities of natural gas are imported via the Tasmanian Gas Pipeline for industrial and residential uses. As the Figure 4 below illustrates, there is a strong relationship between Tasmania's non-transport energy emissions and natural gas imports.

Figure 4: Natural gas imports and greenhouse gas emissions in Tasmania, 2004-2021 (emissions in grey, gas in red)



In the short term, Bass link complicates Tasmania’s emissions profile, but increased interconnection will ultimately support decarbonisation across the NEM and greatly enhance energy security without increasing dependence on gas peaking plants for firming in the 2030s. As renewable generation across the NEM approaches 80% by 2030, the emissions factor associated with imported electricity will decline significantly, increasing energy security in Tasmania and facilitating the permanent decommissioning of the gas-fired Tamar Valley Power station.

Further priorities for the decarbonisation of Tasmania’s stationary energy sector are the gradual electrification of industrial and commercial processes which currently rely on gas or diesel and, where this is not possible, the use of sustainable biofuels and eventually green hydrogen. As we have stated previously, the focus of Tasmania’s nascent hydrogen industry should be on local applications and in niche processes where there is existing expertise rather than bulk export.

The three overarching objectives of Tasmania’s energy strategy over the next decade should be:

1. Maximise the return on Tasmania’s renewable energy assets to Tasmanian taxpayers and the Tasmanian community;
2. To the greatest extent possible, insulate Tasmanian households and businesses from price increases and volatility which are likely to afflict national and international markets; and
3. Support the decarbonisation of electricity generation across the NEM.

3. Responses to draft *Climate Action Plan* questions

Below are our brief responses which broadly cover the questions in the draft *Climate Action Plan* – for more information on these important issues please visit www.utas.edu.au/tpe/climate, www.utas.edu.au/tpe/emissions, and <https://www.utas.edu.au/community-and-partners/tpe/recent-projects>.

Vision

We strongly support the vision outlined in the draft Plan to reduce emissions and build resilience to the impacts of climate change. Ambitious emissions reduction is an absolute priority if we are to contribute to the global effort to prevent catastrophic climate change. As we have argued in our [Blueprint for a climate-positive Tasmania](#) and elsewhere, it is necessary for Tasmania to focus on reducing absolute CO₂-e emissions for a number of reasons including the following:

- The rate at which our forests remove CO₂ will decline over time as they mature, so we need to reduce absolute emissions in other sectors to prevent our net emissions increasing over time and potentially exceeding net zero.
- Every emission avoided counts in the fight against climate change – as was clearly articulated in the recent IPCC 6 *Synthesis Report*, we can and should do everything possible to reduce emissions and remove as much CO₂-e from the atmosphere as possible.
- An aggressive approach to decarbonisation will help build Tasmania's reputation as an international leader on sustainability and climate action and is the foundation for investment and innovation in the zero-carbon industries of the future. In the absence of aggressive decarbonisation, the Tasmanian economy (and export sectors in particular) will be vulnerable in an increasingly carbon-conscious world.

At the same time as reducing emissions, building resilience to climate change impacts will be increasingly vital. Resilience will need to be increased across health and emergency management, ecosystems and habitat, agriculture and aquaculture, infrastructure and the built environment and communities, and climate education and literacy ([A blueprint for a climate-positive Tasmania](#), pp. 52-61).

Goals

We are broadly supportive of all four goals in the draft *Climate Action Plan* and recognise that reaching each goal will be crucial to Tasmania's future.

1. Maintaining net-zero emissions or lower

The first goal of maintaining net-zero emissions or lower lacks ambition – Tasmania may be one of the few jurisdictions globally which has set an emissions target under which it is possible to increase net emissions between now and 2030 (from -3.8mt in 2020 to 'below zero' in 2030). As we have argued previously and reflecting international practice, the clear goal of Tasmania's *Climate Action Plan* should be to reduce absolute emissions across key

industry sectors. Such a goal would be bolstered with the introduction of a target or targets to reduce absolute emissions across the Tasmanian economy developed through the ERRP process. As the goal of being net zero becomes commonplace and is achieved by more jurisdictions, Tasmania should lead by example on emissions reduction by aiming for an absolute emissions reduction target.

2. Information and engagement

The second goal, information and engagement – ensuring up-to-date, high quality, accessible information about our future climate, to support decision making – will be an essential driver of effective climate action. Without such information and genuine engagement, the right decisions cannot be made.

Research and polling have consistently shown a strong correlation between the level of concern about climate change and levels of knowledge about climate change. Tasmanians need to know how their own actions impact on climate change, and how reducing their own carbon footprints has a significant impact on climate change. Education can also enable better preparation for risks associated with climate change, such as bushfire and floods. It will be essential that the Tasmanian community understands the future outlook so the government can be held to account.

We strongly endorse the Tasmanian Government's decision to update Tasmania's fine-scale climate projections – the last set of projections was undertaken by Climate Futures in 2010 – many changes in technology have occurred since then. These should be required to be regularly produced and reviewed.

Consultation and partnerships with Tasmania's Aboriginal people should be required to inform development of CAPs, ERRPs, and reviews of the *Climate Change Act* – this would be a crucial acknowledgement of thousands of generations of accumulated relevant climatic and ecological knowledge.

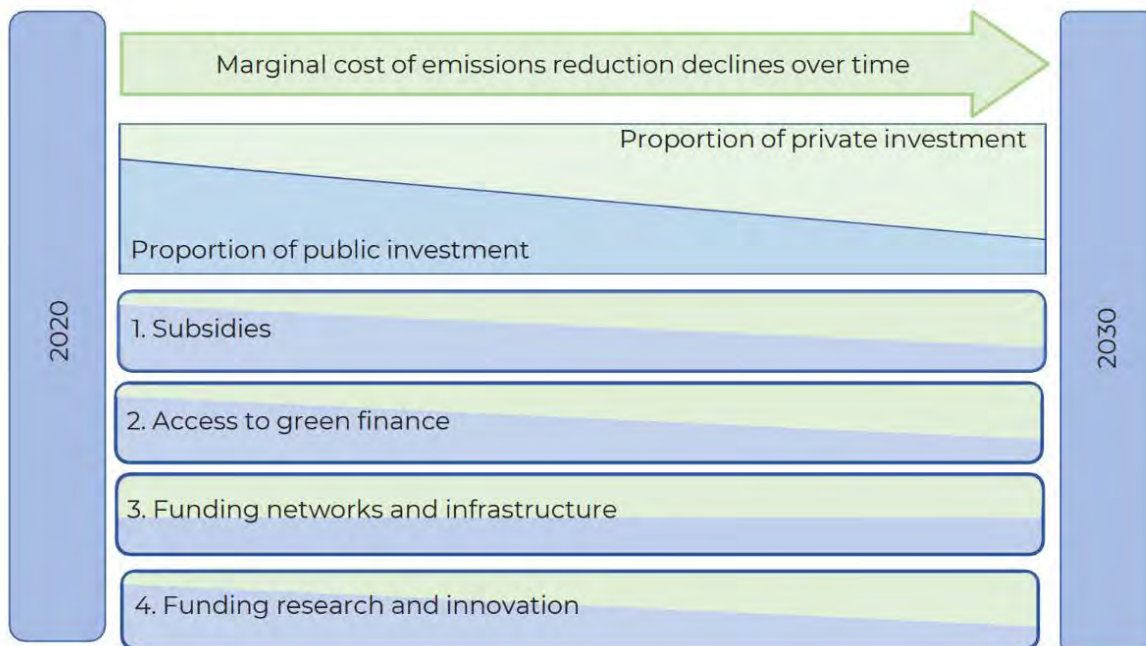
Developing quality climate change resources for schools will be of great importance – young people are the ones who will very soon take over the reins of climate action. They need to be adequately prepared and empowered.

3. Strong policy framework

The third goal – having a strong policy framework to consider climate change risks and opportunities – will also be essential. We have advocated in [previous work](#) that the Tasmanian Government should 'mainstream' its climate change strategy by integrating climate adaptation and mitigation considerations across all the Tasmanian Government's policy domains and objectives, including budgeting. This will ensure that any decisions are made with full knowledge of not only the costs in terms of climate, but also the advantages and opportunities that they may bring (noting the Victoria Uni analysis showing that if Tasmania adopts the 16 low-carbon opportunities outlined on p. 23 of the draft *Climate Action Plan*, Tasmania can generate higher economic and employment growth than BAU – see p. 22).

The Plan should be articulating the governance of climate change efforts in Tasmania. To reflect the size and importance of the climate challenge, more investment and whole-of-state effort is needed. Without a whole-of-government approach, there is a significant risk that targets and goals will not be met or will be detrimental to economic competitiveness and community welfare.

Figure 5: Significant public investment in emissions reduction is required, but can phase out over time



Tasmania’s fragmented, small-scale climate change programs implemented in recent years have had limited impact on emissions mitigation to date, and this draft Plan is continuing in the same fashion.

A clear strategy should also be articulated to develop partnerships for climate action with other tiers of government, civil society and community groups, universities, and businesses.

4. Resilience

The last goal - be more resilient to the risks posed by gradual (such as sea level rise) and acute (such as bushfire and flood) climate change impacts – will be essential for Tasmania as a state and we commend the Tasmanian Government for its commitment to develop a Statewide Climate Change Risk Assessment Plan.

Because the impacts of climate change vary considerably between communities and regions, state governments, working in collaboration with communities, must play a central role in preparing for, and adapting to, climate impacts. Government is best placed to manage (in partnership with others) the future risks facing communities, especially when the timing, scale and distribution of costs associated with climate change is highly uncertain. In this

sense, effective climate adaptation is a collective action problem that cannot be addressed effectively through individual action or market-based approaches alone.

As we have previously argued in [Blueprint for a Climate-Positive Tasmania](#) (p. 52), adaptation plans which identify and respond to growing climate risks can reduce the impact of global warming on communities, the environment, and the economy. But it will also be important to recognise the limits of pursuing adaptation strategies. For example, in some circumstances we will need to implement a managed retreat from climate impact zones such as heavily forested and low-lying coastal residential areas. Further, some of Tasmania's natural systems, such as our ancient forests and kelp forests, will not be able to adapt to rapidly warming conditions and once lost may never return.

In developing adaptation solutions, governments should consider nature-based solutions (NBS) whenever appropriate. NBS address climate change impacts (and greenhouse gas emissions) through the protection, restoration, and sustainable management of natural ecosystems; compared to the deployment of artificial infrastructure and strategies. For example, restoration of endemic coastal vegetation such as dune grasses and trees can strengthen coastal defences against storm surge (as well as sequester carbon dioxide) and protect coastal communities; compared to building a concrete seawall (with a high-level of embedded carbon dioxide emissions). Nature-based adaptation projects can assist with flood and pest control, urban heat, access to water, coastal, river, and inland/hillslope erosion, and wind and fire breaks. [Research](#) has demonstrated that such interventions can be two to five times cheaper than the erection of artificial barriers.

Lastly, the main roles for the State Government in climate adaptation include the following:

- Protecting vulnerable human communities;
- Taking positive action to provide natural assets;
- Providing information and resources for communities;
- Ensuring that other unrelated policies promote adaptive behaviour while not promoting maladaptation – i.e., in land-use planning; and
- Valuing ecosystems services differently - cost-benefit analyses should include social and environmental costs over the immediate and longer term.