RACT Submission

Joint Select Committee on Energy Matters

August 2024

The Royal Automobile Club of Tasmania

RACT enjoys a trusted position in the Tasmanian community.

More than 215,000 Tasmanians are RACT members. We are the largest and strongest member organisation in Tasmania and an award-winning, fully Tasmanian owned, insurance company.

Established in 1923, RACT is an apolitical and independent transport infrastructure, road safety and mobility advocate. We increasingly advocate on the impacts of climate change and supporting improved community resilience. We are committed to supporting and furthering the interests of Tasmanians and we do this through a comprehensive program of consultation, education, awareness and public advocacy.

RACT is represented by senior staff in a number of stakeholder reference organisations in Tasmania and undertakes structured liaison with government and other stakeholder groups.

Nationally, RACT is a constituent member of the Australian Automobile Association (AAA), which represents some eight million Australians, and an active member of the Insurance Council of Australia (ICA).

RACT is a regular contributor to the committees and forums of the AAA and the ICA.

Internationally, RACT has joined with other Australian motoring organisations as a member of the Fédération Internationale de l'Automobile (FIA) to work on road safety and related issues at a global level.

RACT's advocacy and public policy activity is defined by a its advocacy strategy, which is endorsed by the RACT Board, and informed by history, experience, research, statistical analysis, consultation, industry knowledge and our members.

Introduction

RACT welcomes the opportunity to make a submission to the Joint Select Committee on Energy Matters.

Mobility emissions are Tasmania's second highest source of greenhouse emissions across all sectors (excluding the land use, land use change, and forestry sectors). It is also an emissions source with a global focus on decarbonisation solutions, including zero emission vehicles (ZEV), that is increasing at speed as consumers adopt new mobility options. Core to enabling the transition to low and zero carbon transport is the capacity, capability and design of the Tasmanian energy system on which it relies. RACT has made previous submissions to the Tasmanian Government on the need to develop a comprehensive Electric Vehicle (EV) transition strategy that takes the whole of Tasmania's energy system into account.

Support in the community for mobility transition to low and zero carbon emissions is strong. In August 2023, the Tasmanian Policy Exchange, in partnership with the RACT and The Mercury newspaper, conducted a survey to better understand Tasmanian attitudes towards options for low carbon transport. This survey showed that 62% of respondents wanted an ambitious transport emissions reduction target, with 60% of respondents wanting a 2030 target for ZEV (Zero Emission Vehicles). The majority of respondents (50.8%) stated they are likely to purchase an ZEV as their next vehicle.

Tasmania's historic investment in public energy infrastructure based on hydroelectricity places the state in an enviable position to be able to respond to the challenges of transitioning its mobility sector from fossil fuels to renewable generation. These Tasmanian-owned assets, if strategically managed, also provide the opportunity for the Tasmanian Government to deliver government services, including energy transition support and investment, through their returns.

Over the coming years, more and more Tasmanians and businesses will be transitioning to 100% of their energy consumption being electric. This transition will increase Tasmania's dependency on an efficient and optimised energy system that is designed at both a macro and household level to meet new demand, while ensuring affordability for all.

Energy Prices

RACT notes the number and quality of submissions made on pricing for Tasmanians in the recent Legislative Council Inquiry into Energy Prices in Tasmania in late 2023.

Tasmanians use, and are more dependent on, electricity than other Australian states, primarily due to colder winters and inefficient housing stock. This results in Tasmanians having some of the highest household energy costs relative to income in Australia, with energy costs having a key impact on cost of living.

Tasmania's household demand for electricity is likely increase as energy consumption transitions from fossil fuels over the coming decade and beyond. EV's are a significant driver of this demand increase for example, a mid-sized ZEV, like a Tesla 3, has a battery capacity of 50kWh, which can easily double a household's peak consumption through charging. Individually household EV charging profiles have a limited impact on the energy system. International trends show that peak EV charging coincides with current high usage times (in the evening when people are at home). This trend when considering greater penetration levels of EV's can increase pressure on the network.

Uplifting Tasmania's renewable energy generation capacity, and ensuring network capability and capacity, will be critical in managing the impacts of mobility transition while ensuring energy security. This uplift needs to be carefully managed against potential impacts to consumer prices resulting from generation and network investments.

It is important that:

- Tasmanian regulatory levers are appropriate to support consumers in a changing environment;
- Infrastructure investment is prioritised and undertaken in a holistic way that is transparent to the community, supports affordability and the mobility transition;
- Regulatory frameworks support appropriate investment into consumer energy resources (CER).

As a business that only serves Tasmanians, RACT values and understands the importance of maintaining ongoing Tasmanian based employment for our community. Tasmanian businesses understand the unique elements of Tasmania's social, natural and economic environment and design solutions to best meet customer needs. Ongoing local, community-focused ownership in the retail component of Tasmania's energy system is an important consideration.

Challenges

Tasmania's energy system transition, though part of a broader global and national change, is different to other states and territories. This is due to the key decarbonisation activity within Tasmania's energy system being largely the impact of mobility change. At the same time, the broader transition from fossil fuels in Australia presents opportunity for Tasmania's state entities to return revenues to the state than could, in-turn, support the state's transition in the mobility sector and emissions reduction targets.

In 2023, AEMO predicted a 48% increase in energy demand over the coming decade that will be driven by population growth, electrification of transport, and new industry. Though this forecast has reduced slightly in the 2024 Tasmanian outlook, it is still clear there will be a need for additional renewable energy supply.

Moving mobility energy demand from a long-established fossil fuel network to an existing electricity network and generation capacity not designed for this purpose, is a challenge and one that demands a holistic approach. The development of a mobility transition plan that sets ZEV mobility targets, identifies and prioritises the impacts and energy system barriers to meet Tasmanian's emission targets, and support Tasmanians' ambitions, remains a priority for the state.

EV uptake in Tasmania in the 12 months to Dec 2023 comprised 8% of new car sales, a slight decrease from 2023 where one in ten new cars being sold was an EV. In research undertaken by RACT in 2024, 78% of respondents cite the cost of the vehicle as the main barrier to ownership, up from 39% in 2022. As the prices of low and zero carbon vehicles continue fall, a result of new manufacturer entrants in the Australian market, it can be expected that EV sales will again increase.

Research undertaken by Nacmanson, Zhu and Ochoa from the University of Melbourne in 2021 looked at the potential effects of the growing penetration of EV's in the community on the existing Australian networks. The study found that TasNetworks have a hosting capacity of between 0-40%, meaning that the network was able to host anywhere between 0 and 40% of EV penetration, depending on specific location, prior to encountering problems. Though the study focused on a single metro and regional areas, the research indicates the need for increasingly granular data required to inform network planning to support a changing energy demand of consumers.

Expectations of 'faster charge' options from consumers at home, and particularly when travelling, is a current and future challenge. RACT's 2024 research shows that charging points while travelling are a core concern for 42% of respondents. Network upgrade costs are often cited as the key barrier to private sector development of new and additional 'fast charge' sites.

Impacts of a system outage, be it due to extreme weather events, or inappropriate planning or investment to meet increasing demand, is likely to result in a broader impact than experienced today. For example, long term power disruptions will risk disruption of the ability for individuals, business and goods to be moved, in addition to current impacts experienced. Fiscal and social implications of this broader impact should be considered and incorporated as part whole-of-government risk assessment and mitigation and response planning.

Opportunities

Consumer Energy Resources (CER) are consumers' resources that generate or store electricity, including rooftop solar, batteries and EV chargers. CERs provide the opportunity for consumers to benefit from new developments like vehicle to grid technologies to manage their energy usage, get paid for their participation in the grid, and reduce energy costs. For Tasmania, CERs have the potential to enable an increased availability of renewable energy for export.

The Australian Energy and Climate Change Ministerial Council has developed a National Consumer Energy Resources Roadmap. Within this Roadmap are key priorities that will support CER integration. Specific vehicle-related technologies include:

- Nationally consistent standards (including electric vehicle to grid)
- A national regulatory framework for CER to enforce standards.
- Establishing secure communication systems for CER devices.

An important consumer or market outcome identified in the roadmap is the opportunity to enable new market offers and tariff structures that support CER uptake. This may include the development of specific EV tariffs, including metering reforms, enabling customers to have more than one connection point at their homes and/or the option of distinct and separate tariff arrangements.

Working with the energy sector and Tasmanian community and business to set specific, measurable, achievable, relevant, and timebound (SMART) targets and goals to develop a plan that supports the transition to zero and low emission mobility as part of the broader energy strategy is needed. A strong plan would identify EV transition targets, home generation and new technology opportunities such as vehicle to home batteries, and the role of solar in Tasmania's environment. The plan should also identify network infrastructure barriers to uptake and whole-of-system risks to enable targeted investment that supports Tasmanians to take advantage of their energy system and benefit from technological advancements.

Appropriate resourcing that supports Government to consider and develop a plan for Tasmania's mobility-based energy transition in a manner that supports, and spreads benefits to all Tasmanians, is a priority.

The NEM

RACT has no further specific comments on the NEM.

Marinus (Battery of the Nation and Northwest Transmission Development)

RACT recognises the importance and complex ways these projects may impact both positively and negatively on Tasmanian and its energy customers but has no specific comment.