Submission to the Joint Select Committee on Energy Matters

Supplementary Submission

August 2024 | Prepared by:

Professor Richard Eccleston, Kimberly Brockman, and Dr. Lachlan Johnson

UNIVERSITY of TASMANIA

ARBN 055 657 848 ABN 30 764 374 782

Acknowledgment of Country

The University of Tasmania pays its respects to elders past and present and to the many Aboriginal people that did not make elder status and to the Tasmanian Aboriginal community that continues to care for Country. We acknowledge the profound effect of climate change on this Country and seek to work alongside Tasmanian Aboriginal communities, with their deep wisdom and knowledge, to address climate change and its impacts.

The Palawa people belong to one of the world's oldest living cultures, continually resident on this Country for over 65,000 years. They have survived and adapted to significant climate changes over this time, such as sea-level rise and extreme rainfall variability, and as such embody thousands of generations of intimate place-based knowledge.

We acknowledge with deep respect that this knowledge represents a range of cultural practices, wisdom, traditions, and ways of knowing the world that provide accurate and useful climate change information, observations, and solutions.

The University of Tasmania likewise recognises a history of truth that acknowledges the impacts of invasion and colonisation upon Aboriginal people, resulting in forcible removal from their lands.

Our island is deeply unique, with cities and towns surrounded by spectacular landscapes of bushland, waterways, mountain ranges, and beaches.

The University of Tasmania stands for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language, and history, and a continued effort to fight for Aboriginal justice and rights paving the way for a strong future.

Acknowledgments

The authors are grateful to researchers from across the University who contributed their time and expertise both to this submission and to the TPE's previous November 2023 submission to the Legislative Council *Inquiry into Energy Pricing in Tasmania*.

Disclaimer

The views expressed herein are the authors' own and not necessarily the views of the University of Tasmania or the Marinus Link Consumer Advisory Panel of which Professor Richard Eccleston is a member.

Contents

Introduction

Building on the 2023 Legislative Council *Inquiry into Energy Pricing in Tasmania*, the Tasmanian Parliament has established a Joint Select Committee on Energy Matters in Tasmania to continue its investigation of factors influencing the supply, transmission and pricing of Tasmanian electricity. We welcome the opportunity to contribute to the Committee's consideration of this very important topic.

This document updates our October 2023 submission to the previous inquiry, which is appended. Our update focuses on recent developments in the National Energy Market (NEM) and the Tasmanian energy system likely to affect Tasmanian consumers. It has been prepared with regard to the Inquiry's Terms of Reference, which cover:

- The challenges and opportunities relating to energy supply within Tasmania
  - Including energy requirements, energy generation, storage and capacity, and energy security considerations.
- The operation of the NEM
  - Including energy demand, the renewable energy transition, and Tasmania's participation.
- Marinus Link Pty Ltd and associated power developments
  - Including costs and benefits, impacts on Tasmanian energy bills and concessional pricing arrangements, and alternative approaches – including the cost of a 'do nothing' approach.

Overall, recent developments in local and national energy markets have been consistent with the analysis presented in our previous submission:

- Wholesale electricity prices in Tasmania and across the NEM are continuing to trend upward despite a small fall in the most recent Office of the Tasmanian Economic Regulator (OTTER) price determination.
- There is an urgent need to increase renewable electricity generation in Tasmania to reduce price pressures and support decarbonisation and future industries.
- Recent State and Commonwealth energy subsidies and rebates have provided temporary bill relief, but state subsidies in particular will be difficult to sustain given budget pressures facing the Tasmanian Government.
- There is potential for increased retail competition, reform of the OTTER price determination methodology and the changing ownership of Basslink to put downward pressure on consumer electricity prices.
- Preparation and planning for first stage of Marinus Link (750MW) continues to progress, with likely completion by 2030. The project should deliver benefits to both the NEM (supporting decarbonisation and reliability) and Tasmania (energy security and opportunity to leverage hydroelectric assets). However, given the uncertainty of the final project cost and its allocation among consumer groups, there are potential financial risks for Tasmanian and Victorian consumers.

This update is divided into four sections:

- Section 1 addresses recent movements in the wholesale electricity price, the most recent Aurora Notional Maximum Revenue (NMR) determination, and the impacts of rising prices on Tasmanian consumers.

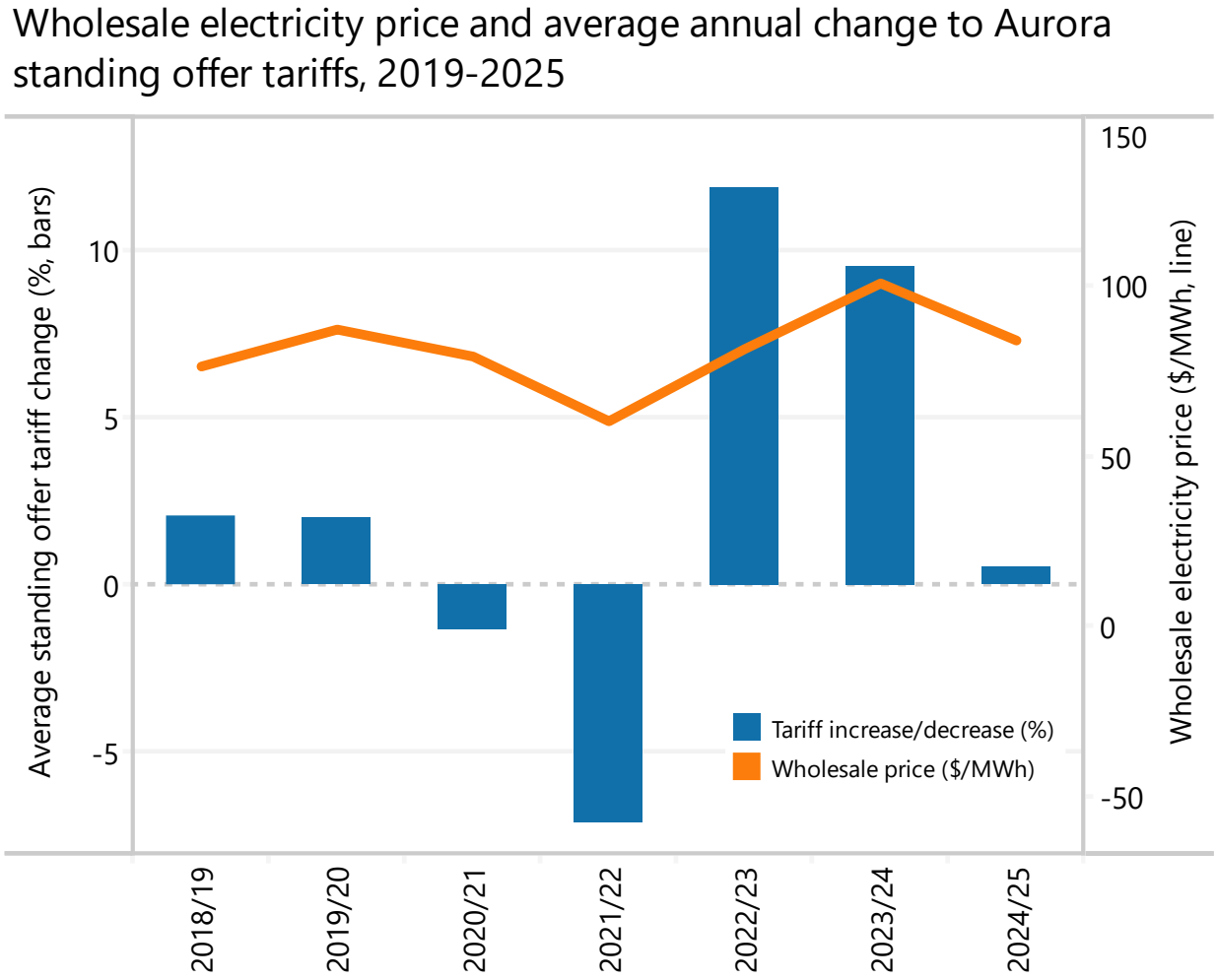
- Section 2 considers Tasmania's future energy system in the context of an ongoing transformation of the NEM, highlighting the need to ramp up the pace of investment in new generation, transmission and storage.
- Section 3 provides a brief overview of developments in the Marinus Link interconnector project since our October 2023 submission.

We once again thank the Committee for the invitation to make a submission to this important Inquiry and would welcome the opportunity to discuss our analysis.

1 Tasmanian electricity prices and the 2024 price determination

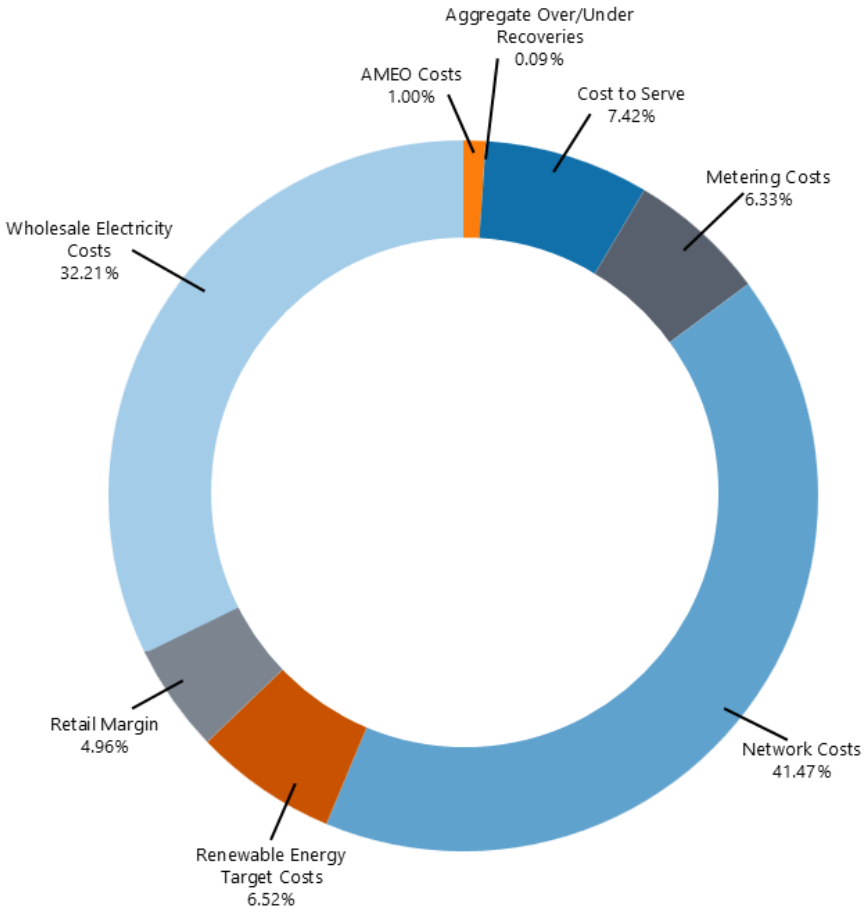
OTTER's most recent Review of the Approach to Regulating Retail Electricity Prices in June resulted in the retail electricity standing offer price increasing by around 0.5% on average for all customers. This increase was largely due to higher network and metering costs associated with the rollout of advanced meters. However, this increase in network and metering costs has been mostly offset by lower wholesale electricity prices compared with 2023/24 (Figure 1). Aurora Energy, the state-owned retailer which dominates the Tasmanian retail market, increased prices across most tariffs in line with the approved pricing proposal.

Figure 1: Aurora Average Standing Offer Tariff Price Movement and Wholesale Electricity Price, 2019-2025. Source: OTTER Price Methodology Determinations



While this year's rise has not been as steep as in some previous years, more can likely be done to maintain downward pressure on prices for electricity consumers. Our October 2023 Parliamentary Submission pointed to a lack of competition in the Tasmanian retail electricity market as one factor contributing to high retail margins (See also COTA Tasmania's submission). Retail competition may have increased somewhat since last year, with new retailers such as Solstice Energy (a parent company of TasGas) entering the market in December 2023.

Figure 2: Cost components of the Aurora Energy Notional Maximum Revenue (NMR) 2024-25. Source: Aurora Energy Pricing Proposal



A further recent development is Aurora Energy's decision to grandfather flat-rate tariffs (tariffs 31, 41, 22, and 43), which will no longer be offered for new buildings or properties that do not already have a flat-rate tariff installed. Aurora Energy has argued that "on average 78% of customers on [the] residential Flat Rate tariff (93) would have been better off on [the] Residential Peak and Off-Peak tariff (93) without any change to their electricity usage behaviour", while 71% of businesses would have been better off.

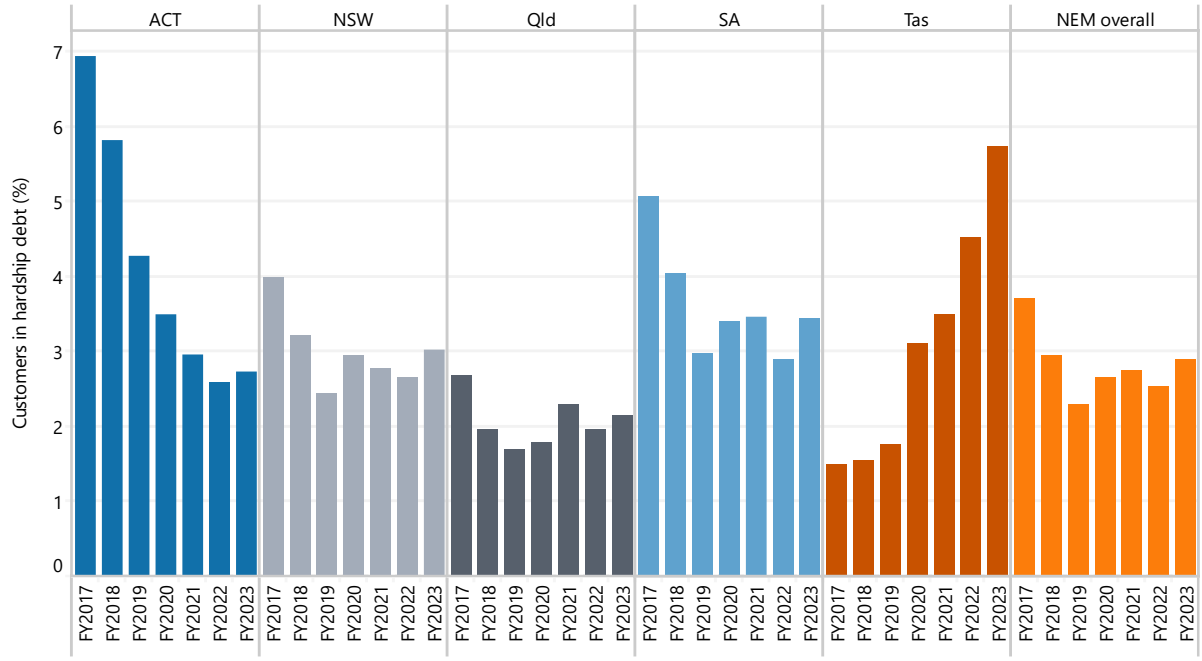
The shift away from flat-rate tariffs is likely a positive development that will help to manage demand at peak usage times, but the experience of other jurisdictions over the past year or so suggests a need to proceed cautiously. Not all customers will necessarily be best served by a time-of-use model and retailers must be careful to ensure that all Tasmanians are consulted and informed well in advance of any changes.

Consumers who are unable to change their electricity consumption habits – either due to need (e.g., the elderly or those with health conditions) or demand (e.g., because of inability to purchase more energy efficient appliances, work schedules, etc.) – require particular consideration. Some consumers who have been forced onto time-of-use tariffs have struggled to adapt and face the prospect of rationing usage during more expensive peak times.

1.1 Energy concessions and energy debt

Given the high cost of electricity and the disproportionate economic burden of energy bills on poorer household (See our October 2023 Submission), concessions are available for many Tasmanian households that meet eligibility requirements (typically holding a pension or health care card). Concessions with specific eligibility requirements are outlined in our previous submission. Many of these involve daily concessions – such as the annual electricity concession and the life-support concession. However, the number of Tasmanians struggling to pay for electricity has risen sharply and more than in other Australian jurisdictions, with around three times as many households in energy debt last year than in 2017 (see Figure 3 below).

Figure 3: Share of customers in energy debt by state/territory, 2017-23. Source: AER Annual Retail Markets Report (2022-23)



Tasmania is the only jurisdiction in the NEM in which a greater share of customers was in energy debt in 2023 than in 2017. The average debt of a Tasmanian electricity customer on entry to a hardship program/plan ($3,305) has also more than doubled during this period and is now more the national average ($1,193).

Aurora Energy is required to engage consumers in a payment plan if they are having difficulty paying their electricity bill. However, over 13,000 Tasmanians were cut off from their payment plans due to non-payment in 2022. These data suggest Tasmania has the highest levels of energy poverty in Australia.

Given rising energy prices and growing cost of living pressures, both the Tasmanian and Commonwealth governments (separately and with one concession in partnership) have introduced and extended additional energy concessions over the past 12 months, which are summarised below in Table 1.

Table 1: Additional Tasmanian and Commonwealth Concessions

Concession	Details	Cost[1]
Commonwealth Government		
Energy Bill Relief	An **annual rebate of $300** (applied automatically in quarterly instalments) for all Australian households who receive an electricity bill and are connected to the grid.	$3.5 billion from the Commonwealth Government across 2024-25 (an extension of the scheme rolled out in 2023-24).
Tasmanian and Commonwealth governments (in partnership)		
Energy Price Relief Fund	Provides (additional) financial support of $250 per year to vulnerable Tasmanians and small businesses. Applied automatically to electricity bills in the September 2024 quarter and the June 2025 quarter.	$11.4 million in the 2023-24 budget, with a forward estimate of $34 million in 2024-25 from the Tasmanian Government.
Tasmanian Government		
Supercharged Renewable Energy Dividend	$250 financial assistance to every Tasmanian household and $300 to all eligible small businesses, automatically applied to electricity bills.	Up-to-date information on the cost of this initiative is expected in the forthcoming Tasmanian State Budget.
Business Energy Efficiency Scheme	Interest free and low interest loans to help commercial and industrial energy customers reduce their electricity costs by implementing efficiency upgrades.	$1.5 million in the 2023-24 budget, with forward estimates of $1.2m and $0.8m in the years following.
Energy saver loan scheme	Provides loans from $500 to $10,000 to finance energy efficiency upgrades and products for individuals, eligible businesses, and community organisations.	$1.2 million in the 2023-24 budget, with estimates of $2.5m and $0.8m in the years following.

These concessions and schemes cost the Tasmanian Government $14.1 million in 2023-24, with an additional $36 million in the years following.[2]

Under the Renewable Energy Dividend Scheme, Tasmanian households will receive a payment in every year that Hydro Tasmania returns dividends over $90 million. In 2024, this meant that all Tasmanian households were entitled to $30 in dividends, but this was 'supercharged' by the Government to $250 for residential households (even those on embedded networks) and $300 for small businesses.[3]

[1] Based on the 2023-24 budget, as the 2024-25 budget will not be released until September 2024.
[2] Based on the 2023-24 State Budget. See here.
[3] See here for more information.

The recent Independent Review of Tasmanian State Finances highlighted the importance of Government Business Enterprises (GBEs), particularly Hydro Tasmania, in contributing to the State Government revenue. As such, the review concluded that if the Government wishes to reduce energy prices for Tasmanians, then energy price subsidies (and concessions) should be done through the Budget to provide greater transparency.

1.2 Market trends and outlook

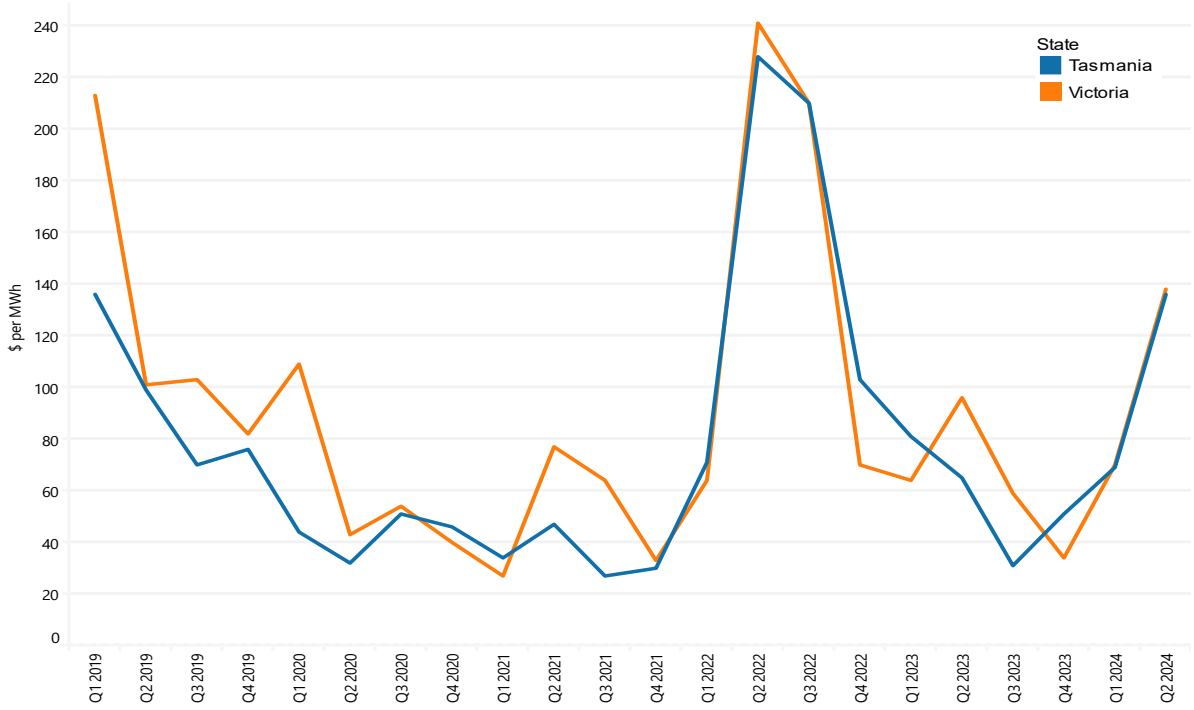
The decline in wholesale electricity prices across the NEM in 2023 provided welcome relief for Australian consumers. However, wholesale prices have risen again over the first half of 2024, driven by growing demand and below-forecast renewable generation across Eastern Australia. These trends were exacerbated in Tasmania by an unusually dry autumn leading to a decline in storage levels across the hydroelectric system, which fell to 34.4% capacity in August 2024, compared to 45.4% at the same time the previous year. To conserve water and remain above the 'Prudent Storage Level', Hydro Tasmania has reduced generation and recommissioned the more expensive gas-fired Tamar Valley Combined Cycle Gas Turbine (CCGT) in May 2024. The CCGT produced over 15% of on-island electricity generation over the 2024 winter.

According to the latest Australian Energy Regulator (AER) *Wholesale Market Quarterly Report, Q2 2024* (page 1):

> *Prices increased in Tasmania by $71 per MWh (110%), mainly driven by hydro offering at higher prices, likely due to lower storage levels at major dams caused by the lower-than-average rainfall in the region.*

This will flow through into higher retail prices in 2025. The reliance on the gas-fired Tamar Valley power station this winter will put further upward pressure on prices.

Figure 4: Average quarterly electricity prices in the NEM - Tasmania and Victoria. Source: AER



In terms of the levelised cost of generation, onshore wind and commercial-scale solar remain the cheapest options. This highlights the need to increase the share of wind and solar in the Tasmanian electricity system and preserve hydro capacity for firming when system demand and spot prices are high. While Tasmania's hydro system will be an increasingly valuable asset as the energy transition progresses, it is important to recognise that it is an old system and will be expensive to maintain – it is estimated that $2.6 billion will be required for maintenance and upgrades over the coming decade.

1.3 Transmission costs

In June 2024, the Australian Energy Market Operator (AEMO) published its biennial *Integrated Systems Plan* (ISP), which sets out a roadmap for the transition of the NEM to net zero by 2050. As in previous years, the 2024 ISP highlights the need to significantly and urgently increase investment in and delivery of new transmission, generation and storage projects to meet the Commonwealth Government's target of generating 82% of electricity from renewable sources by 2030 while reliably meeting future electricity needs.

Nationally and in Tasmania there will have to be a significant increase in investment in new renewable generation, storage and transmission infrastructure over the next decade. An estimated 5,000km of additional high voltage transmission and interconnection will be required, including the North-West Transmission project and Marinus Link between Tasmania and Victoria. Under the existing regulatory regime, the cost of transmission projects is ultimately borne by consumers and while official modelling still suggests that these costs will be offset by lower generation costs (see Section 4 in appended October 2023 submission), analysts are increasingly concerned that project delays and escalating transmission costs may put further upward pressure on consumer prices.

One recent development in the regulation of transmission infrastructure in the NEM which should benefit Tasmanian energy consumers and taxpayers was the establishment of the Basslink interconnector as a regulated asset with the AER. Hydro Tasmania previously paid an annual facility fee of $70 million to access Basslink, but under the proposed cost allocation model Victorian consumers will pay 90% of the regulated cost of the asset with Tasmanian consumers paying the remaining 10%. While the final pricing decision will not be made by the AER until February 2025, it is possible that Hydro Tasmania will make an annual saving of $70 million as they will no longer be required to pay the annual facility fee. Tasmanian consumers will contribute approximately $10 million per annum to the cost of operating Basslink. A commitment to distribute windfall savings from the conversion of Basslink to a regulated asset among Tasmanian energy consumers would deliver average saving of $200 per retail customer per annum.

2 Tasmania's Future Energy System

Since the TPE made its October 2023 submission to the Legislative Council *Inquiry into Energy Pricing in Tasmania*, many of the issues and concerns therein have only become more urgent. The most recent AEMO ISP forecasts that around 90% of Australia's coal fleet will retire before 2035, with the remainder to retire before 2040. It predicts that replacing this retiring coal generation and keeping up with new electricity demand will require a tripling of renewable energy supply capacity by 2050, as well as major investments in household energy efficiency upgrades and 'behind-the-metre' generation capacity. The race to transition from a fossil-fuel dependent energy system to renewable generation with sufficient storage for firming and gas-fired backup generation is well and truly on.

Over the past 12 months, renewable sources contributed 37.7% to generation across the NEM. Coal-fired power was the largest source (56.7%), followed by solar (18.8%), wind (12.5%), hydro (6.3%), and gas (5.3%). Despite the continuing steady increase in renewable generation, supply constraints and increasing demand have highlighted the urgency of investing in more generation supported by greater firming capacity. Tasmania can and should be at the forefront of new investment in renewable generation capacity, particularly given the opportunities presented by far greater interconnection towards the end of the decade.

2.1 Supply constraints and rising demand in 2024

The risks posed by the current phase of the energy transition have been clearly illustrated in recent months. In particular, the NEM has experienced a challenging period of supply constraints and lower-than-expected renewables penetration since April 2024, driven largely by three factors:

- Many parts of eastern Australia have experienced a prolonged 'wind drought' in the past few months. The severity and duration of this low-wind period has been such that Q2 of 2024 recorded the lowest volume of total wind generation (5,803 GWh) since Q2 2021 and the lowest wind capacity factor since June 2017.
- Periods of colder-than-average weather coincided with the wind droughts in some parts of Eastern Australia, leading to high energy demand driven by heating in particular at times of constrained renewable supply. As a result, coal-fired generation reached unexpectedly high levels at several points throughout the first half of 2024.
- An extended period of low rainfall in Tasmania meant that the state's hydroelectric generation in Q1 2024 (1,417 GWh) was at its lowest level since Q1 2017. As noted above, this forced Hydro Tasmania to fire up the CCGT for the first time in 5 years.

In combination, these factors have driven high wholesale prices, high carbon emissions (due to increased reliance on coal and gas), and system-level difficulties managing low or intermittent renewable supply.

Far from demonstrating that a high penetration of renewables is risky, this challenging period illustrates the paramount importance of both greater investment in new and diversified renewable generation and adequate storage for firming. As the mass retirement of fossil-fuel electricity generation nears, the urgency of this investment in the energy transition could hardly be greater. Unfortunately, we are not moving fast enough to prevent potentially

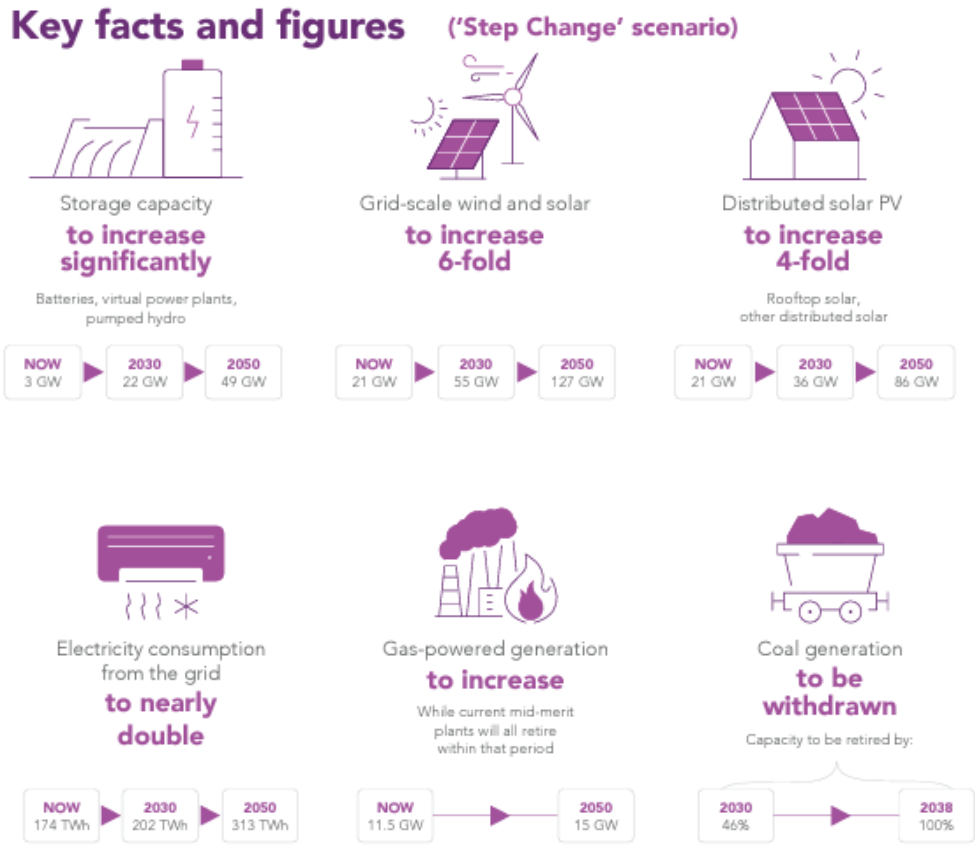
serious supply shortfalls and unmet demand across the NEM, especially in Victoria, South Australia, and New South Wales.

2.2 Progress of the energy transition

The optimal development path under the 'Step Change' scenario outlined in the latest AEMO ISP shows that investment in new renewable generation remains well behind what is required. More specifically, the ISP argues that to adequately prepare for the coming retirement of coal-fired power stations in Australia we will need to:

1. Increase grid-scale variable renewable energy threefold by 2030 and sixfold by 2050. This would mean adding 6GW of new renewable generation every year where currently we are adding only 3-4GW.
2. Focus on new generation projects in renewable energy zones (REZs) to help ensure the availability of a skilled workforce, reduce transmission costs, support optimal grid-level reliability and security.
3. Quadruple existing firming capacity from non-coal sources including batteries, pumped and conventional hydro and gas.
4. Ensure that transmission, distribution, storage and demand management across the NEM can support and enable a forecast quadrupling of rooftop solar generation to 72GW by 2050.

Figure 5: Key facts and figures from the ISP 'Step Change' Scenario. Source: AEMO



Without this investment, large parts of the country will experience supply shortfalls and brown- or blackouts in the coming years. As our previous submissions (see appended October 2023 submission) noted, even if all committed and anticipated generation projects were to proceed (a very big 'if'), Victoria and South Australia would still fall below the level

required to maintain the relevant reliability standard this coming summer. New South Wales will follow, falling short in 2025-26, and Queensland will fall short by 2029-30. Assuming increased interconnection via Marinus Link, Tasmania can play an important role in providing stability and firming capacity during this transition period.

2.3 Financing major projects: Challenges with a consumer-pays model

Delivering the major new transmission infrastructure required for a successful and rapid energy transition also presents challenges for the existing models used to fund such investment. Currently, major transmission projects (such as Marinus Link) are funded using a 'consumer-pays' model with the AER determining the revenue that consumers can be charged for a regulated transmission asset.

In our previous submission, we argued that this model is highly regressive and potentially unsustainable given the disproportionate impact of energy costs on the poorest households. Wealthier households can partially or fully exempt themselves from paying for nationally significant energy infrastructure projects by making their homes more energy efficient and purchasing rooftop solar or home battery systems, thereby drastically lowering their power bills (or even generating a financial return through feed-in tariffs). Low-income households, and particularly those who rent, cannot make these kinds of investments and therefore will be forced to contribute an ever-increasing share to the overall cost of major transmission projects. This is reflected in data from the Household Income and Labour Dynamics Australia (HILDA), which shows that the proportion of household income spent on energy by households in the bottom income quintile was three times higher than that in the top quintile (see our October 2023 submission). This disparity is especially concerning in Tasmania given that we typically have higher electricity bills than consumers in other parts of the NEM, largely due to our cooler climate and poorly insulated housing stock.

Rather than continue with a purely user-pays model, we believe that Tasmania should advocate at the Commonwealth level for a cost-sharing model under which some of the cost of these projects is funded from Commonwealth taxation (which is progressive) rather than electricity bills (which are highly regressive). At the very least, the Commonwealth should fund cost overruns compared to initial project costings (currently $3.3 billion in the case of Marinus). This would protect consumers from the significant financial risk associated with cost overruns.

Since our we made our previous submission, high inflation, cost-of-living pressures and cost increases in major transmission projects have only made this issue even more pressing. We believe that the current model for funding vital infrastructure will only become more unsustainable and unequal over time.

2.4 Equitable decarbonisation in regional areas

Like any major socioeconomic change, the energy transition will have a range diverse, non-linear, and unpredictable impacts. These will not be uniform impacts across Tasmania: some areas will benefit more than others, and some will face greater challenges. Given the geographic location of fossil-fuel and renewable energy generation infrastructure – and the major transmission projects that connect them to consumers – it is likely that disruptions associated with the energy transition will be felt most keenly in regional areas of the state. Therefore, it is essential that regional Tasmanian communities are active participants in the

co-design of responsive, place-based transition plans to manage the diverse impacts of decarbonisation on services, infrastructure, local economies and employment, and the natural environment.

In this context, the TPE is currently collaborating with CSIRO to develop a framework intended to guide place-based, regional decarbonisation planning. This framework will provide a principles-based consideration of the diverse impacts of decarbonisation across a wide array of different domains, including energy, health and wellbeing, housing and infrastructure, employment, the Tasmanian Aboriginal community, education, and the natural environment. The framework builds the case for why each of these domains must be considered as part of decarbonisation planning. For each domain, it provides a brief overview of key questions that regional-level decarbonisation planning will likely need to engage with, and a summary of potential individual, community, and systemic outcomes. The TPE's *Equitable decarbonisation in Tasmania: Framework for a place-based decarbonisation planning* policy paper will be published later in 2024.

3 Marinus Link

Since October last year, progress has been made towards the delivery of one of the most important transmission infrastructure projects in the NEM: the 750MW Marinus Link undersea cable. Marinus Link is a proposed high-voltage direct-current (HVDC) cable that would increase interconnection between the Tasmanian and Victorian electricity transmission systems. If Basslink serves its full original design life of 40 years, this would increase Tasmania's interconnection capacity with the NEM to 1,250 MW until at least 2046.

Marinus Link will drastically increase Tasmania's ability to provide firming and deep storage for the NEM while eliminating our need to 'waste' precious hydro power during times of the day when mainland wind and solar are cheap and plentiful and spot prices are low or negative.

Despite the considerable potential benefits of Marinus Link both for Tasmania and the NEM, delays and cost increases have raised questions about its impact on future energy prices. Cost increases and a deterioration in the Tasmanian and Victorian state budgets have also led to a renegotiation of the ownership of the project. Under the terms of the newly amended deal, Tasmania's equity has been reduced to 17.7% from its original share of 33%. Tasmania has also gained the ability to sell its stake to the Commonwealth once the interconnector has been commissioned. Progress has also been made on the procurement front, with contracts signed for cable supply and installation from Italian firm Prysmian and HVDC converter technology from Hitachi Energy. With these key supply agreements signed and the final investment decision expected in April 2025, Marinus Link is scheduled to be in operation by 2030.

While the amended deal and ownership structure reduces the Tasmanian Government's financial risk and return and control over the Marinus Link project, it has no effect on consumer prices. According to the latest modelling of economic impacts, if Marinus Link is delivered on time and on budget it will still deliver a net economic benefit of $40 million per annum (Step Change Scenario) but, as noted above, risks associated with cost overruns remain with consumers.[4]

A further risk for Tasmanian consumers is the Australian Energy Market Commission (AEMC) is yet to finalise a rule change for the allocation of the costs Marinus Link between Tasmanian and mainland customers. Historically, the costs of interstate transmission projects have been split evenly between jurisdictions, but this is not appropriate for Marinus Link given the small size of the Tasmanian customer base combined with the fact that 94% of the benefits of the interconnector will accrue to mainland consumers. For this reason, it is important that the AMEC allocates the cost of Marinus Link on the basis of benefits or population size (as per the Basslink determination).

[4] See here, page 8.

4 Reference List

Aurora Energy (2022) *Pricing Proposal for Period 3 of the 2022 Standing Offer Price Determination 1 July 2024 – 30 June 2025* <https://www.economicregulator.tas.gov.au/Documents/Aurora%20Energy%202022%20Determination%20Revised%20Pricing%20Proposal%20Period%203.pdf>.

Aurora Energy (2024) *2024 changes to flat rate tariffs*, viewed 25 August 2024 <https://www.auroraenergy.com.au/help/connections/electricity/2024-changes-flat-rate-tariffs>.

Australian Energy Market Operator (AEMO) (2024) *2024 Integrated System Plan (ISP)*, 26 June <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp>.

Australian Energy Market Operator (AEMO) (2024) *Roadmap for the Energy Transition – AEMO's 2024 Integrated System Plan* <https://aemo.com.au/-/media/files/major-publications/isp/2024/2024-integrated-system-plan-overview.pdf?la=en>.

Australian Energy Regulator (2023) *Annual retail markets report 2022-23*, 30 November <https://www.aer.gov.au/publications/reports/performance/annual-retail-markets-report-2022-23>.

Australian Energy Regulator (2024) *Basslink Consultation Paper – Commencement and Process Paper Amendment*, May <https://www.aer.gov.au/system/files/2024-06/AER%20-%20Basslink%20consultation%20paper%20-%20commencement%20and%20process%20paper%20amendment%20-%20May%202024.pdf>.

Australian Energy Regulator (2024) *Wholesale markets quarterly – Q2 2024,* 24 July, <https://www.aer.gov.au/publications/reports/performance/wholesale-markets-quarterly-q2-2024>.

Australian Government (2024) *Loans for commercial and industrial energy customers for energy efficiency initiatives*, last updated 5 July 2024, viewed 24 August 2024 <https://business.gov.au/grants-and-programs/business-energy-efficiency-scheme-bees-tas>.

Department of Climate Change, Energy, Environment and Water (2024) *Energy Bill Relief Fund 2024-25*, Australian Government, viewed 24 August 2024 <https://www.energy.gov.au/energy-bill-relief-fund#:~:text=Australian%20households%20who%20receive%20an,bills%20from%201%20July%202024>.

Eccleston, R., Johnson, L., Brockman, K., Hortle, R., and Hyslop, S., (2023) *Energy in Tasmania Submission to the Legislative Council Inquiry into Energy Prices in Tasmania*, Tasmanian Policy Exchange, October <https://www.utas.edu.au/__data/assets/pdf_file/0010/1690714/TPE_UTAS-submission-to-LegCo-Energy-Pricing-Inquiry-final-261023.pdf>.

Energy Ombudsman Tasmania (n.d.) *Fact Sheet – Are you having difficulty paying electricity bills?* <https://www.energyombudsman.tas.gov.au/__data/assets/pdf_file/0003/447321/Fact-Sheet-Are-you-having-difficulty-paying-your-bills.pdf>.

Eslake, S., (2024) *Independent Review of Tasmania's State Finances*, Corinna Economic Advisory, 19 August <https://www.sauleslake.info/independent-review-of-tasmanias-state-finances/>.

Hitachi Energy (2024) *Hitachi Energy's HVDC technology to power Marinus Link, a key step towards Australia's Net Zero ambitions*, Press Release, 23 May <https://www.hitachienergy.com/news-and-events/press-releases/2024/05/hitachi-energy-hvdc-technology-to-power-marinus-link-a-key-step-toward-australia-s-net-zero-ambitions>.

Hydro Tasmania (2024) *$1.6b to modernise infrastructure for 'new era of Tasmanian hydropower'*, 8 August <https://www.hydro.com.au/news/media-releases/2024/08/12/1.6b-to-modernise-infrastructure-for--new-era-of-tasmanian-hydropower>.

Marinus Link (2024) *Project Marinus RIT-T update*, 16 April <https://www.marinuslink.com.au/wp-content/uploads/2024/04/AER-letter_RIT-T-update_16-April-2024.pdf>.

McCardle, P., (2024) *Highest-ever wind yield… *and* worst wind yield since June 2017!*, WattClarity by GLOBAL-ROAM, 1 June <https://wattclarity.com.au/articles/2024/06/01june-longrange-windproduction-statistics/>.

Mercer, D., and Mockler, R., (2024) *Power bill shocks and 'convoluted' prices spark calls for an end to Australia's energy tariff 'nightmare',* ABC News, 16 August <https://www.abc.net.au/news/2024-08-15/calls-to-end-power-bill-shocks-and-convoluted-prices/104113386>.

Office of the Tasmanian Economic Regulator (2024) *Regulated Electricity Prices and Feed-In Tariff Rate to Apply from 1 July 2024*, Media Release, 17 June, <https://www.economicregulator.tas.gov.au/Documents/Media%20release%20-%20Regulated%20electricity%20prices%20and%20feed-in%20tariff%20rate%20to%20apply%20from%201%20July%202024.pdf>.

Office of the Tasmanian Economic Regulator (2024) *Review of the Approach to Regulating Retail Electricity Prices Draft Methodology Paper* <https://www.economicregulator.tas.gov.au/Documents/24%20262%20%20Review%20of%20the%20approach%20to%20regulating%20retail%20electricity%20prices%20-%20Draft%20methodology%20paper%20%28July%202024%29.PDF>.

Office of the Tasmanian Economic Regulator (2024) *Tasmanian Energy Security Monitor and Assessor Monthly Dashboard – August 2024 edition* <https://www.economicregulator.tas.gov.au/Documents/24%201628%20%20Tasmanian%20Energy%20Security%20Monthly%20Dashboard%20-%20August%202024.PDF>.

Office of the Tasmanian Economic Regulator (n.d.) <https://www.economicregulator.tas.gov.au/>.

OpenElectricity (n.d.) viewed 20 August 2024 <https://explore.openelectricity.org.au/energy/nem/?range=all&interval=quarter&view=discrete-time>.

Packham, C., (2024) *Marinus Link confirms 2030 start date after signing $1bn supply deal with Italiam firm Prysmian*, The Australian Business Network, 2 August <https://www.theaustralian.com.au/business/renewable-energy-economy/marinus-link-confirms-2030-start-date-after-signing-1bn-supply-deal-with-italian-firm-prysmian/news-story/9816a2432f14d5964d0d4295dee4bb8a>.

Parkinson, G., (2024) *Drought forces Tasmania to fire up its biggest gas plant for first time in five years*, Renew Economy, 20 June <https://reneweconomy.com.au/drought-forces-tasmania-to-fire-up-its-biggest-gas-plant-for-first-time-in-five-years/>.

Parliament of Tasmania, Parliamentary Standing Committee of Public Accounts (2024) *Inquiry into Hydro Tasmania and the Termination of the Basslink Services Agreement* <https://www.parliament.tas.gov.au/__data/assets/pdf_file/0023/82922/FINAL-REPORT-Inquiry-into-Hydro-Tasmania-and-the-Termination-of-the-Basslink-Services-Agreement-17-June-2024.pdf>.

Renewables, Climate and Future Industries Tasmania (n.d.) *Tasmania's Energy Saver Loan Scheme*, Tasmanian Government, viewed 24 August 2024 <https://www.recfit.tas.gov.au/grants_programs/energy_saver_loan_scheme>.

Seeder, B., (2023) *Aurora bosses questioned over response to customers struggling with costs*, The Examiner, 23 November <https://www.examiner.com.au/story/8432791/aurora-energy-cuts-off-struggling-tasmanians-from-payment-plans/>.

TasCoss (2024) *Unjustifiably high electricity prices locked in*, 17 June <https://tascoss.org.au/mr-energy-price-determination/>.

Tasmanian Government (n.d.) *Budget and Finance Management – 2023-24 Tasmanian Budget* <https://www.treasury.tas.gov.au/budget-and-financial-management/2023-24-tasmanian-budget>.

Tasmanian Government (n.d.) *Tasmanian Government and the Australian Government have partnered to deliver cost-of-living relief through lower energy bills through the Energy Bill Relief Fund,* viewed 24 August 2024 <https://www.concessions.tas.gov.au/concessions/electricity_and_heating/energy-bill-relief-fund?SQ_DESIGN_NAME=print&?SQ_PAINT_LAYOUT_NAME=print#:~:text=The%20recently%20announced%20Energy%20Bill,not%20have%20to%20do%20anything>.

Tasmanian Liberals (n.d.) *Tasmania First Energy Guarantee Supercharged Hydro Renewable Energy Dividend*, viewed 24 August 2024 <https://tas.liberal.org.au/tasmania-first-energy-guarantee-supercharged-hydro-renewable-energy-dividend>.