

# TasNetworks Submission: Legislative Council Inquiry into Energy Prices



Powering a  
Bright Future

TasNetworks acknowledges the palawa (Tasmanian Aboriginal community) as the original owners and custodians of lutruwita (Tasmania). TasNetworks, acknowledges the palawa have maintained their spiritual and cultural connection to the land and water. We pay respect to Elders past and present and all Aboriginal and Torres Strait Islander peoples here with us today.

# Foreword

TasNetworks is the State-owned company that owns, maintains and operates the electricity transmission and distribution networks in Tasmania. Since TasNetworks began operating in 2014-15 it has delivered reductions in the network charges faced by residential and small business customers, placing significant downward pressure on the delivered cost of electricity in Tasmania.

In 2023-24, the network charges applied to most residential and small business customers are lower than they were in 2014-15 and lower still in real terms. Network charges in Tasmania also represent a smaller component of the retail price of electricity for residential customers and small businesses than they did in 2014-15, and are amongst the lowest in the National Electricity Market (**NEM**).

TasNetworks is a natural monopoly, in that it is more cost effective for one network to serve all customers than have poles and wires owned by multiple entities criss-crossing Tasmania's suburbs and countryside. In the absence of competition, TasNetworks is subject to economic regulation by the Australian Energy Regulator (**AER**). Prior to Tasmania's entry into the NEM in 2005, the Office of the Tasmanian Economic Regulator (**OTTER**) was responsible for regulating Tasmania's network businesses. OTTER continues to be involved with setting and enforcing standards of safety, security, reliability and quality applying to TasNetworks.

Under the current economic regulatory regime, TasNetworks' capital and operating expenditure, its revenue, the prices it charges for network services and a range of ancillary services provided on a fee for service basis, are all approved by the AER. This ensures that TasNetworks has the revenue it needs to operate prudently and efficiently, maintain and invest in its networks, and earn a fair return on its investment, while protecting the interests of customers in terms of safety, reliability and affordability.

Even with the reductions in network charges delivered by TasNetworks since 2014, we are conscious that network prices represent a significant contributor to the cost of living and recognise our customers' concerns about future increases in their electricity bills.

TasNetworks is operating in a period of unprecedented change. The transition to renewable energy occurring in other states and territories, the expansion of Tasmania's renewable generation capacity and customers' increasing use of solar panels, battery storage and electric vehicles all present significant opportunities for Tasmania and TasNetworks, as well as challenges, as we work to support our customers, the Tasmanian power system and the NEM. TasNetworks is committed to doing its part to ensure electricity is affordable for all, while maintaining a safe, reliable and future ready network. TasNetworks welcomes, therefore, the inquiry into Tasmanian energy prices by the Legislative Council Sessional Committee Government Administration 'A' and the opportunity to make this submission.

# 1 TasNetworks' role in the electricity supply chain

TasNetworks began operating in July 2014, when the transmission network owned and operated by Transend Networks and the distribution network business of Aurora Energy were combined to form a new State-owned company. In other parts of the country, the ownership of transmission networks and distribution networks is usually separated, but in Tasmania the two networks have been combined, making for greater efficiencies and allowing us to focus on managing 'one' Tasmanian network.

Tasmania's transmission network forms the backbone of the State's power system, linking electricity generators with major loads and population centres and connecting the Tasmanian power system with Basslink. The transmission network takes high voltage power from 30 hydro-electric power stations, five wind farms, one thermal (gas-fired) power station and Basslink and delivers it to ten large commercial and industrial users of electricity as well as substation transformers around the State.

From there the distribution network takes over, transporting electricity, at lower voltages, down every street to end-use customers, including households and small and medium sized businesses.

TasNetworks also owns, maintains and operates the distribution network on Bruny Island, but does not provide network services on either King Island or Flinders Island.

The amalgamation of the two network businesses was one of the recommendations made by an expert panel established by the State Government in 2010 to conduct a review of the Tasmanian electricity supply industry and provide guidance to the Parliament on its future development. While TasNetworks is owned by the State of Tasmania, it operates as a commercial business, and is a major part of the State's economic infrastructure, with assets of over \$4 billion. We also operate our business to deliver sustainable shareholder outcomes. Profits made from delivering services to our customers are returned back to Tasmanians, in the form of dividends paid directly to the Tasmanian Government.

## 2 TasNetworks' operating environment

### 2.1 Major factors influencing network prices

#### 2.1.1 Economic regulation

Under the National Electricity Law and National Electricity Rules, the AER conducts a forensic examination of TasNetworks' expenditure and revenue every five years. This assessment of TasNetworks' plans ensures it has the revenue it needs to operate prudently and efficiently, maintain and invest in its networks, in the long-term interests of customers.

The revenue allowances set by the AER in relation to the provision of transmission and distribution network services represent the maximum amount of revenue that TasNetworks can recover from customers in any given year during each five-year period. Our network charges for both networks are set each year to recover the revenue allowance for each network.

Because the amount of revenue TasNetworks recovers from customers in any given year through general network charges is capped by the AER, TasNetworks cannot earn more than its revenue

allowance for the provision of regulated services. This means, if a colder than average winter results in increased consumption of electricity by residential customers and causes an over-recovery of network revenue by TasNetworks in that year, any over-recovery must be returned to customers, in the form of a reduction in the network charges applying in subsequent years.

Below are two key features of the regulatory framework that significantly influence network prices.

#### 2.1.1.1 Incentive-based regulation

A feature of the regulatory framework applied to electricity networks in Australia by the AER is the use of incentive schemes to incentivise networks to improve efficiency and performance for the benefit of customers. Sustainable, recurrent operational savings achieved by TasNetworks and efficiencies achieved through our capital expenditure program are shared approximately 30:70 between TasNetworks and our customers, thereby putting downward pressure on network prices.

#### 2.1.1.2 Regulated Rate of Return

The largest single component of TasNetworks' revenue is the provision of a financial return on the capital invested in Tasmania's electricity networks, which is determined by the application of a rate of return (set by the AER) to the value of TasNetworks' regulatory asset base (**RAB**). The AER uses prevailing interest rates and government bond yields to inform the rate of return, meaning network revenues and pricing outcomes are closely linked to movements in interest rates.

TasNetworks has, to date, been operating in an environment where lower interest rates have helped put downward pressure on network revenues. While the outlook for interest rates is uncertain, rates are likely to remain higher than they have been over much of the past decade and this will place upward pressure on network charges.

### 2.1.2 Capital expenditure

As mentioned above, the value of TasNetworks' asset base is the largest determinant of TasNetworks' revenue and a significant driver of the network charges paid by the end users of electricity through their power bills. The value of TasNetworks' RABs are largely driven by capital expenditure. The need for capital expenditure is driven by the replacement of ageing or failed assets, network augmentation and extension, as well as the requirement to meet new regulatory obligations and service standards.

Since becoming responsible for Tasmania's electricity grid in 2014, TasNetworks has focussed on ensuring that the investments in its networks are prudent and efficient, balancing the need for sustainable electricity prices over the long term with maintaining safe and reliable network services.

Our capital expenditure plans are shaped by a programme of extensive stakeholder engagement, involving customers and their advocates, electricity retailers, generators, energy advisors and representatives of the Tasmanian business community. Our capital expenditure plans are then scrutinised by the AER every five years, as part of the revenue determination process.

Major investments in network infrastructure above a threshold value are also subject to additional, project-specific, cost benefit analysis, known as a Regulatory Investment Test (**RIT**), a public assessment which is overseen by the AER. The purpose of a RIT is to substantiate the need for the investment and identify the preferred network (or non-network) option that delivers the greatest economic benefit to the electricity market. The RIT process also ensures investment decisions are only made in the long term interests of customers, in line with the National Electricity Objective.

### 2.1.3 Emerging cost pressures

The Australian economy, along with other world economies, is experiencing significant inflationary pressure, making it harder for networks to operate within their regulated allowances. As the domestic and global economies have emerged from the COVID-19 pandemic, continued supply chain disruptions, rising fuel prices, the war in Ukraine and shortages of skilled labour are amongst the factors driving up networks' costs. Shortages of the raw materials used extensively in the electricity supply industry, such as copper and aluminium, have been exacerbated by the global push to build the network infrastructure needed to connect renewable generation, driving the cost of conductors, transformers and other equipment higher.

Our networks are increasingly subject to severe weather and bushfires, requiring us to rebuild parts of the network and replace damaged assets, which increases our costs. A significant proportion of our assets are located above the snow line, exposed to high winds, or in areas of high rainfall and bushfire risk. These factors all contribute to higher likelihood of asset failure or damage, as well as accessibility challenges, which impact on TasNetworks' costs.

TasNetworks, like other networks, has experienced significant increases in insurance premiums in recent years, due to extreme fire and flooding events globally and increasing cyber security threats. This trend is expected to continue, given the prevailing insurance market conditions. TasNetworks is also required to uplift its cyber security maturity to implement the Australian Energy Sector Cyber Security Framework. Strengthening TasNetworks' cyber security will allow us to comply with the cyber security obligations in the *Security of Critical Infrastructure Act 2018*.

TasNetworks is mitigating the impact of these emerging costs on customers by investing to improve the resilience of our networks to climate change, improved bushfire resilience to mitigate the risk of natural disasters on our assets and, where possible, achieving savings in areas of the business over which TasNetworks has greater control.

## 2.2 Supporting customers with cost-of-living pressures

TasNetworks has been a signatory to the Energy Charter since 2021. As an industry-led initiative, one of the main focus areas in the last 12 months has been the increasing cost-of-living pressures on energy customers, particularly those already facing vulnerable circumstances.

TasNetworks is proud to have supported a number of initiatives included in the Energy Charter's Statement of Support, focussed on providing relief to customers to alleviate cost-of-living pressures and supporting customers to manage cost-of-living pressures by building resilience, capacity and capability.

These initiatives include:

### National Concessions Awareness Campaign

In collaboration with other Energy Charter Signatories, TasNetworks has provided funding and shared insights from our work with vulnerable communities to support the development of The Energy Charter's National Concessions Awareness Campaign. The Energy Concessions Awareness Campaign is aimed at educating and informing people who have a Commonwealth concession card and supporting them to access any concessions they are eligible for in their state or territory.



### **Knock to stay connected program**

TasNetworks and Aurora Energy have been delivering Knock to Stay Connected (**KTSC**), a nationally consistent, customer-led approach since February 2023. The program aims to avoid any potential disconnection of customers who may be in financial stress. Working with the Energy Charter, retailers and networks across Australia, we co-designed the KTSC customer code which requires us to visit people at risk of disconnection and outline the support and services available if the customer is having payment difficulties. While the program has only been going since February 2023, early reports are positive, showing that over 66 per cent of disconnection requests have been successfully cancelled.

### **Free energy support program**

In August 2023, TasNetworks established a new partnership with Uniting Energy Support Program offering free tailored, one-on-one advice and assistance to energy customers to help them navigate their bills, energy efficiency and access to support.

### **Voices for Power**

TasNetworks and Aurora Energy are currently co-designing a community capability building program called “Voices for Power”. The program will train and mentor a cohort of “Community Energy Trainers” who deliver culturally appropriate energy literacy workshops to diverse communities. This will include a module on energy efficiency which will assist customers to better manage their electricity.

### **Vulnerability Plan**

TasNetworks co-funds a position at TasCOSS responsible for managing the Community Voices Program, a lived experience advocacy program for people who live on low incomes to have a voice in the services, systems and decisions which affect them and their communities. TasNetworks recently hosted a workshop where our Executive and Senior Leaders worked directly with TasCOSS and customer advocates to understand the lived experience of those facing vulnerable circumstances. Learnings from our work with TasCOSS will be used to inform our approach to supporting vulnerable customers through the development of a Vulnerability Plan. This Plan aims to build on the positive work already underway by improving the lives of Tasmanians through investment in initiatives that help and support people facing vulnerable circumstances.

### **Improving Accessibility**

The business is also increasing our focus on communicating in Plain English to increase accessibility for customers. This includes rolling out accessibility updates to our website to ensure relevant information is easily available.

TasNetworks continues to work with our peers both in Tasmania and nationally to improve our support for customers facing vulnerable circumstances.

## 2.3 Energy transition

Traditionally, the role of networks has been to convey electricity from a small number of large generators to a large number of small customers, as well as to industrial users of electricity. Increasingly, however, TasNetworks is being required to cater for two-way flows of energy, due to the growing number of households and small businesses with their own generation who are looking to inject energy into the distribution network for use by other customers. Customers are also expected to increase their use of battery storage and electric vehicles, potentially placing new and unforeseen demands on the power system and changing the way customers use the network. So, instead of being a one-way conduit for energy transportation, in the future TasNetworks' role will be to provide a platform that enables multilateral trading in energy, energy products and services.

TasNetworks will also have a key role to play in connecting the new renewable generation envisaged under the Tasmanian Renewable Energy Target, as well as the proposed Marinus Link interconnector. There is also the potential for a green hydrogen industry to emerge in Tasmania, which would significantly increase the amount of electricity delivered by TasNetworks.

As the demands customers place on our networks change, capital expenditure is going to be required to ensure that the transmission and distribution networks are future ready, safe and reliable. Investment will be needed to replace ageing assets, connect new renewable generation to the transmission network, and to support customers' increasing use of solar panels, batteries and electric vehicles.

Construction of the proposed Marinus Link undersea interconnector between Tasmania and Victoria will be a catalyst for the additional renewable generation needed in Tasmania to produce green hydrogen, power the expansion of existing industries and drive the electrification of road transport. Marinus Link will also enable reliable clean energy generated in Tasmania to be delivered to customers in the NEM, while enabling excess energy generated on the mainland to be stored in Tasmania's hydro storages and made available for use when demand outstrips supply.

Development of the transmission network in Tasmania will be needed to support Marinus Link, enable the connection of new renewable generators and load customers, and ensure that power system security and reliability are not compromised under increasingly onerous operating conditions.

It is vital that any transmission network investment is co-ordinated in a manner that preserves the Tasmanian power system's security and resilience, while delivering benefits for Tasmanian customers that outweigh the costs. TasNetworks is working with the Tasmanian Government to help implement its Tasmanian Renewable Energy Action Plan, including planning for the investment in the transmission network that will be needed to support the development of Renewable Energy Zones .

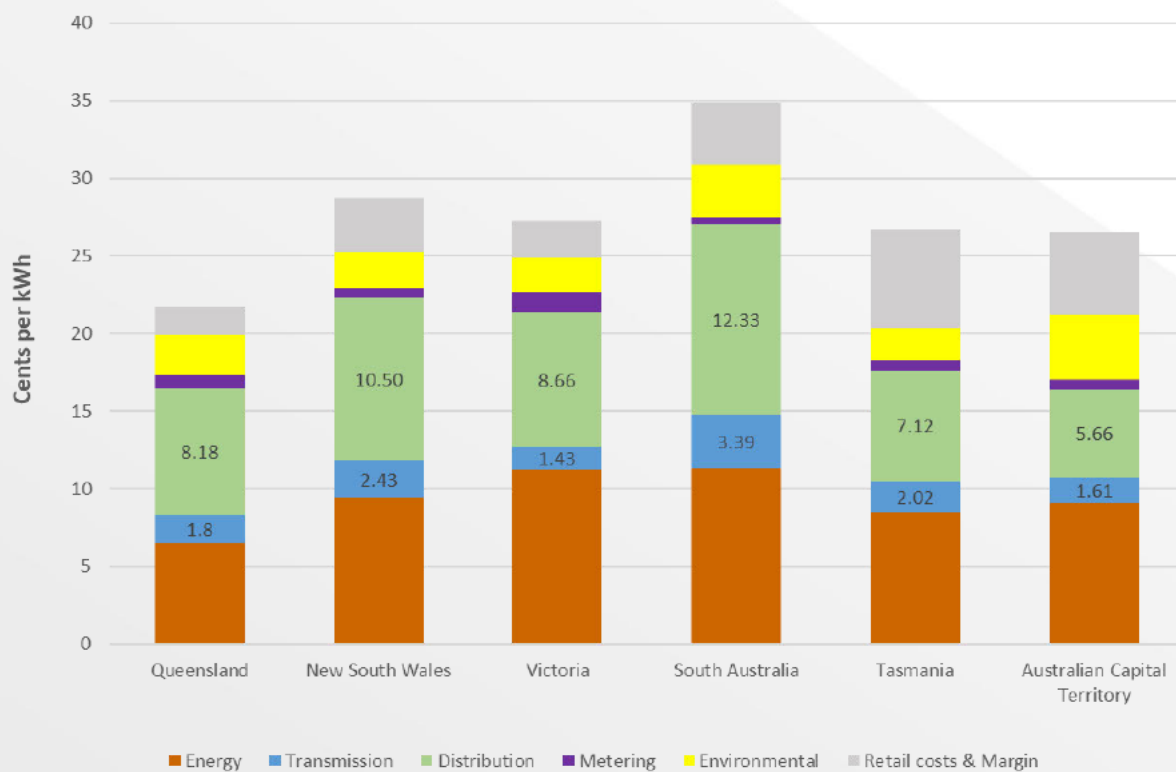
Some of this capital expenditure is likely to put upward pressure on network charges in the medium term, but will ultimately help deliver more reliable services and lower electricity prices, as customers benefit from the renewable generation and energy storage enabled by our investment in the network.

### 3 Network charges

Rather than charge residential and small business customers directly, TasNetworks charges retailers for their customers' access to and use of the network. Retailers then pass on the network charges to their customers via retail tariffs. It is up to retailers how TasNetworks' network charges are reflected in the bills received by their customers.

Analysis done by the Australian Energy Market Commission (AEMC) in 2016<sup>1</sup> and 2021<sup>2</sup> shows network costs in Tasmania have fallen from around 13 cents per kilowatt hour in 2016 to a little over 9 cents in 2021. Figure 1 shows that in 2021, the most recent year for which the analysis is available, Tasmania had the second lowest network costs, in terms of the cost per kilowatt hour.

**Figure 1 Network costs as a proportion of retail electricity bills, 2021**



#### 3.1.1 Residential customers

The default network tariff for new residential customers is now a consumption-based time of use network tariff (the TAS93 network tariff) that features a daily charge and per unit rates applied to each kilowatt hour (kWh) of energy used by the household. The tariff offers lower network charges at off-peak times – including weekends in their entirety.

<sup>1</sup> AEMC, *2016 Residential electricity price trends*, Final report

<sup>2</sup> AEMC, *Residential Electricity Price Trends 2021*, 25 November 2021



Figure 2 shows the annual network charges in real terms (\$2023-24) that would have applied to a typical residential customer assigned to the TAS93 network tariff from 2014-15 to the present day, as well as forecast of the annual network charges for the same customer until 2028-29.

Taking into account the changes to both the daily charge and the consumption based network charges applying to residential customers on the TAS93 network tariff, in real terms (\$2023-24) the annual network charges for a typical residential customer are 23.5 per cent lower in 2023-24 than they were in 2014-15.

**Figure 2 Annual network charges for a typical residential customer<sup>3</sup>**



### 3.1.2 Small business customers

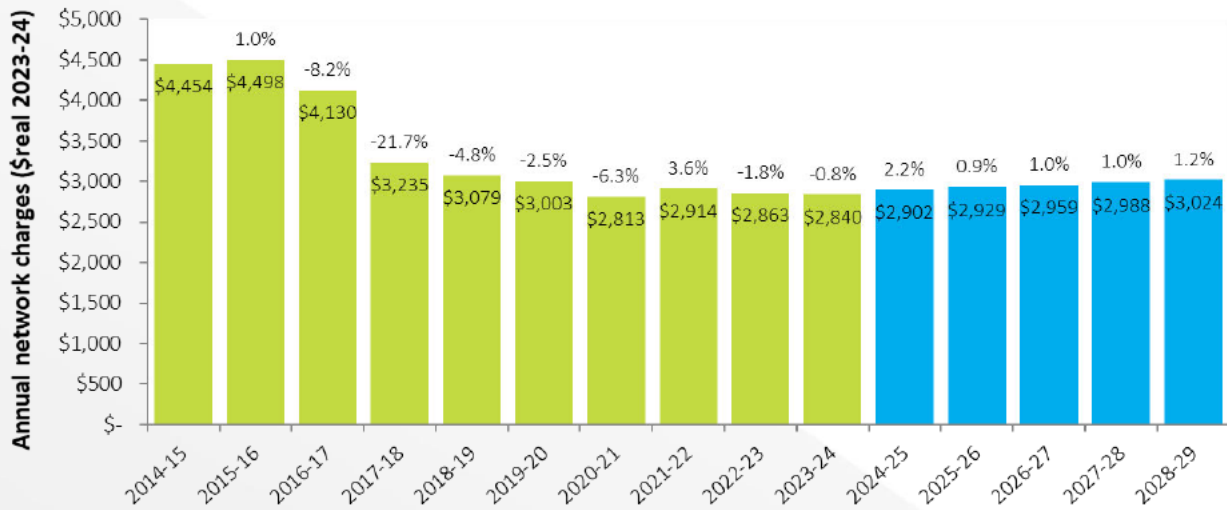
The default network tariff for small businesses in Tasmania is now a consumption-based time of use network tariff (TAS94), that features a daily charge and a per unit rate applied to each kilowatt hour of energy used by the business. The tariff offers lower network charges in shoulder periods and at off-peak times.

Figure 3 shows in real terms (\$2023-24) the network charges applying to a typical small businesses from 2014-15 to the present day, as well as projections of the annual network costs for the same customer until 2028-29.

Taking into account the changes to both the daily charge and the consumption based network charges, in real terms (\$2023-24) the annual network charges for a typical small business assigned to the TAS94 network tariff are 36.2 per cent lower in 2023-24 than they were in 2014-15.

<sup>3</sup> Using 7,834 kWh per annum and assigned to TasNetworks' Low voltage residential time of use consumption network tariff (TAS93).

**Figure 3 Annual network charges for a typical small business<sup>4</sup>**



## 4 Conclusion

During the development of our revenue proposal for the 2024-2029 regulatory period, a number of themes emerged as priorities for our customers. They included investment by TasNetworks that increases Tasmania's renewable energy capability and investments to ensure the reliability and resilience of our networks. The top concern for our customers, however, was affordability.

TasNetworks, as a State-owned company, has delivered material reductions in the network charges applying to the majority of Tasmanian electricity users. We are continuing to listen and respond to our customers and stakeholders by making trade-offs that seek to exert further downward pressure on network charges for customers, without sacrificing reliability and safety or undermining the delivery of the other priorities identified by our stakeholders.

<sup>4</sup> Using 33,578kWh per annum and assigned to TasNetworks' Business low voltage general light and power network tariff (TAS22).