



TASINVEST

GATEWAY OF OPPORTUNITIES

RENEWABLE ENERGY TASMANIA

THE IDEAL LOCATION TO INVEST
IN A CLEAN ENERGY TRANSITION





CONTENTS

MINISTERIAL FOREWORD	2
OVERVIEW OF TASMANIA	3
ECONOMIC CREDENTIALS	4
RENEWABLE CREDENTIALS	5
WHY TASMANIA	6
RENEWABLE ENERGY GENERATION.....	6
HYDROGEN	7
BIOENERGY	8
STORAGE (BATTERY)	9
MAJOR INFRASTRUCTURE PROJECTS	10
BATTERY OF THE NATION	10
MARINUS LINK AND NORTH WEST TRANSMISSION DEVELOPMENTS	11
OPPORTUNITIES	12
RENEWABLE ENERGY ZONES.....	12
TASMANIAN GREEN HYDROGEN HUB.....	14
PIPELINE OF PROJECTS.....	14
SKILLED WORKFORCE	15
SERVICES AND ACCESS	16
ROAD	16
FUEL.....	16
RAIL.....	16
PORT	17
ELECTRICITY	20
GAS	21
INTERNET	21
WATER SUPPLY AND WASTEWATER TREATMENT	22
SUPPORT	23
CLEAN ENERGY FINANCE CORPORATION.....	23
GOVERNMENT POLICY.....	23
EXPLORE THE OPPORTUNITIES	23



MINISTERIAL FOREWORD

Tasmania knows renewable energy. For more than a century, through endurance and innovation, our state has built a renewable hydro-electric energy scheme that is the envy of the world.

Now with 100 per cent self-sufficiency in renewable electricity generation, Tasmania is by far Australia's leading renewable energy state and offers a compelling location for forward-thinking investors.

Tasmania is open to investors who wish to become part of the renewable energy generation sector or achieve real sustainability targets through renewable energy use and generation, as well as new energy retailers who can effectively add another level of competition for consumers.

And we are also looking further to the future. We have legislated the Tasmanian Renewable Energy Target (TRET) which is a world leading goal to double our installed renewable generation capacity by 2040.

The opportunity to double our already significant renewable energy production, will largely be enabled through our nationally significant Project Marinus and Battery of the Nation projects. In addition to injecting billions into our economy, creating thousands of local jobs, and improving energy security, these significant infrastructure projects will provide market access and grid firming capacity for new renewable energy generation opportunities.

Our world class wind resources provided by our location in the 'roaring forties' offer a natural advantage and potential for further renewable energy production. Four candidate renewable energy zones, three onshore, one offshore, have been identified in Tasmania, which highlight our island's suitability to deliver additional renewable energy opportunities.

Tasmania has outstanding potential to be a leading producer and exporter of green hydrogen and derivatives (e-fuels). Our existing, and potential, renewable energy resources, world-leading expertise in hydro power and wind systems, deep-water ports with significant capacity for growth, skilled labour force and quality industrial precincts, uniquely positions Tasmania to harness the full opportunity of e-fuels across the value chain. This could support the national energy transition and contribute to global emissions reduction efforts. As international demand for e-fuels continues to grow, Tasmania is well placed to capitalise by making the most of the available opportunities that will underpin our economy, attract investment, create jobs and deliver a cleaner world.

Tasmanians can be proud that our renewable energy generation is at the heart of Tasmania's nation-leading climate action plans, helping to reduce our emissions and those of the nation. We have achieved our target of net zero emissions seven years in a row and we still have the lowest per capita emissions of all states and territories. Proudly, we are also one of the lowest net emitters of carbon dioxide on the planet, having reduced emissions by 95 per cent from 1990 levels.

The Tasmanian Renewable Energy Action Plan articulates our vision and a suite of actions to develop renewable energy generation in Tasmania over the coming twenty years. Our action plan sets out the pathway to securing our renewable energy future and transform Tasmania into a world leading provider of affordable, reliable and clean energy. We welcome the opportunity to share our vision, and I encourage you to engage with the exciting opportunities and initiatives that renewable energy in Tasmania presents.

Hon Guy Barnett MP

Minister for Energy and Renewables

OVERVIEW OF TASMANIA

Tasmania is the island state of Australia. It lies 240 kilometres south of the Australian mainland and has a distance from north to south of 296 kilometres and 315 kilometres from east to west. At 42° south, Tasmania has a mild and temperate maritime climate and hosts a population of just under 568,000. It is just a short flight from the major international cities of Melbourne (60 minutes) and Sydney (105 minutes).

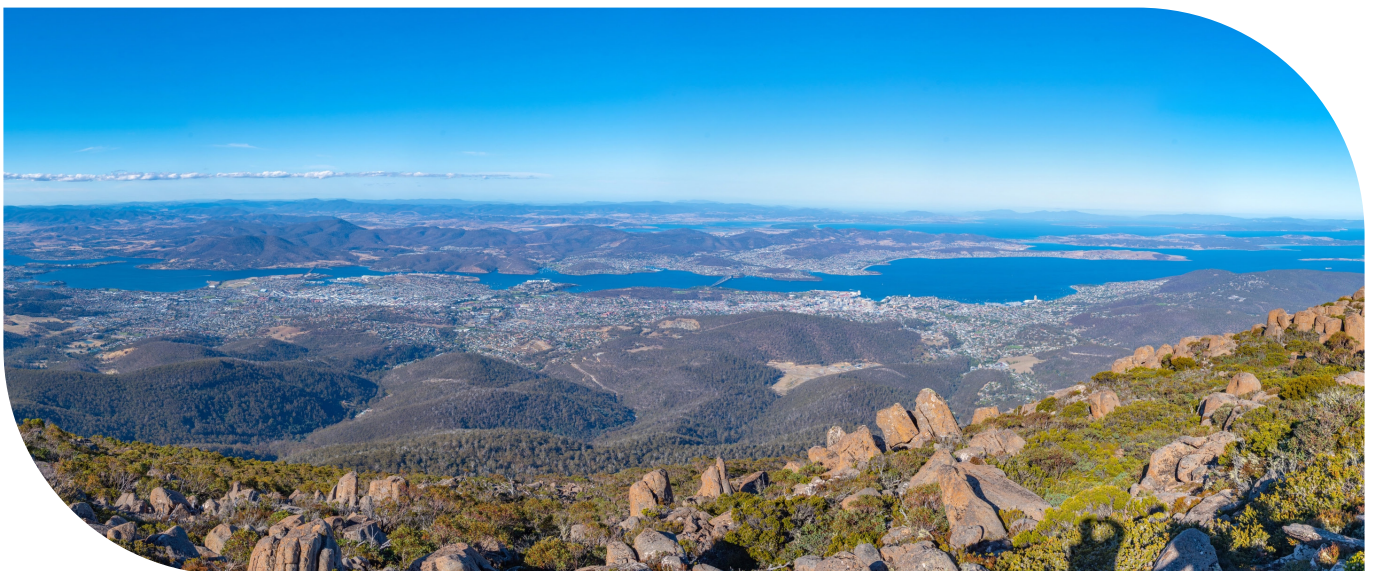
Tasmania has spectacular natural attributes including laying claim to some of the cleanest air in the world – Cape Grim was identified by the Australian Government's Scientific and Research Organisation as having the cleanest air on Earth.

One of Tasmania's most significant natural resource advantages is its water, with the state having nearly 27 per cent of Australia's total freshwater reserve capacity. This advantage is magnified given Tasmania is also one of the few places in the world where bottled rainwater has the required purity to be approved for human consumption by the health departments of the United States of America, European Union, Australia and Japan.

Tasmania is home to a diverse range of industries, demonstrating the state's capacity and capability in assisting businesses thrive. Industries include advanced manufacturing, renewable energy, education, agriculture, aquaculture, food processing, ICT, tourism, mining, resource processing and transport and logistics, to name a few.

Tasmania offers a number of advantages to investors including:

- Tasmania's industrial land and office accommodation costs are some of the most affordable in Australia.
- Staff costs are very competitive with Tasmania enjoying some of the lowest total labour costs in the country.
- Tasmania has industry renowned staff retention rates and workforce relations records.
- Tasmania has one of the lowest business taxation ratios in Australia.
- Tasmania has transparent planning procedures, an independent and transparent environmental regulatory regime and low sovereign risk.
- Tasmania is a safe island benefiting from its geographical location.
- Tasmania's climate is stable – there is a lack of extreme weather events and relative freedom from other natural disasters.



ECONOMIC CREDENTIALS

Tasmania is an attractive place to invest and set up a business. Tasmania is also one of Australia's most affordable places to establish or expand a business. The state has a resourceful and resource rich economy with a reputation for quality. Tasmania's compelling brand is strong and has a number of globally competitive advantages that are admired worldwide as being synonymous with excellence, purity and sustainability.

Despite the global impacts of COVID-19, Tasmania has gone from strength to strength over the past eight years. In October 2015, Tasmania was at the bottom of Australia's economic performance tables (8th position), however, throughout the pandemic, Tasmania has held the top spot as Australia's best performing economy, a position Tasmania has held for 10 out of the last 12 quarters.

CommSec's quarterly State of the States report examines key economic indicators to determine how Australia's states and territories are performing. In CommSec's April 2020 report, immediately prior to the impact of COVID-19, Tasmania shared top place with Victoria as the best performing economy in Australia; leading nationally on two of the eight economic indicators; dwelling starts, and relative population growth. Throughout the pandemic, Tasmania held the top spot as Australia's best performing economy for nine quarters in a row. Tasmania is now in second position but there is little to separate the top two economies. The latest results from CommSec (January 2023) indicate that Tasmania consistently ranks at high levels across all eight indicators and is leading the nation in equipment investment.

Tasmania has long been a destination for international investment and has demonstrated strong growth over the past few years. Tasmania's trade interests are currently supported by a number of free trade agreements to which Australia is a signatory. These agreements are with China, Japan, Hong Kong, Singapore, the United States, Malaysia, Korea and the Association of South East Asian Nations (ASEAN). The latest labour force statistics show that Tasmania's unemployment rate has significantly improved from 2019 to 2022. Since June 2019, the state's unemployment rate has decreased from 6.3 per cent to 3.7 per cent in June 2022, which is the lowest Tasmanian unemployment rate on record and has remained low with the latest unemployment rate at 4 per cent released in January 2023.

Tasmania has the lowest total cost of employing workers in Australia, based on average weekly earnings and one of the most stable workforces in the nation, allowing businesses to fully benefit from reinvestment in their staff. The cost of recruiting staff and retaining Tasmanian consultants and contractors is typically less expensive than the cost for similar mainland services. Tasmania also has one of the lowest business taxation rates in Australia.



RENEWABLE CREDENTIALS

Tasmania is Australia's leader in renewable energy and offers a compelling location for forward-thinking investors who either wish to invest in the renewable energy sector or achieve real sustainability targets through renewable energy generation and use. Tasmania is also open to new energy retailers who can effectively add a new level of competition for consumers.

Tasmania is already 100 per cent self-sufficient in renewable electricity generation, making it one of a handful of places around the world to have achieved this, and has a legislated commitment to generate 200 per cent of our current electricity needs by 2040¹.

Tasmania has been a forerunner in the development of renewable energy generation with more than 100 years of continued investment in renewable energy infrastructure and technology experience which has enabled Tasmania to develop an unmatched level of renewable energy skill and expertise among our engineers and technicians.

In most years Tasmania generates more than 80 per cent of its electricity from hydro-electric systems, with wind and solar PV accounting for growing shares (around 17 per cent and 2 per cent respectively in 2020–21). Gas-plays a small role as a back-up source of generation, accounting for less than two per cent of total electricity generation in 2020–21.

There is also a growing number of generators embedded in the distribution network with small scale solar photovoltaic generation providing approximately one per cent of Tasmania's electricity. Tasmania has the most ambitious emissions reduction target in Australia with a legislated target of achieving net zero greenhouse gas emissions, or lower, from 2030. Additionally, Tasmania has the lowest per capita greenhouse gas emissions of any Australian state or territory. Latest figures show that Tasmania has reduced its emissions by 120.9 per cent from 1990 levels and has achieved net zero emissions for the last seven years.

Tasmania is well placed to increase its renewable energy supply. In response to identified and forecasted electricity demand across Australia, work is currently underway on a number of capacity building projects.

These include Project Marinus – a proposed second Bass Strait interconnector, Tasmania as the Battery of the Nation project and the opportunities within the Australian Energy Market Operator (AEMO) Integrated System Plan (ISP) to fill the gap that the retirement of ageing coal-fired power stations on the Australian mainland will create. Critical underwater engineering surveys for Marinus Link are currently underway across Bass Strait as technical processes to sensitively design and build this national priority infrastructure continue at pace.



1. defined as of 200 per cent of Tasmania's 2022 baseline of 10,500 GWh of renewable energy generation

WHY TASMANIA

Tasmania is the first state in Australia, and one of the first jurisdictions in the world, to be 100 per cent self-sufficient in renewable electricity generation. This confirms our status as a world leader in clean energy generation. With companies across numerous industries looking to enhance their ESG reputation, access to firm renewable energy provides Tasmania with a competitive advantage. Tasmania is perfectly situated to capture the prevailing westerly winds from the reliable 'roaring forties' which makes Tasmania an ideal location for investing into new energy generation.

Tasmania's ability to be a reliable and secure supplier to help customers diversify their supply chains and for companies to alleviate sovereign risk. Tasmania is a reliable supplier of key minerals used throughout the value chain, open to trade, accessible to markets and has low sovereign risk.

Furthermore, in most instances Tasmanian advanced manufacturing and other industrial operations will be located less than 100 kilometres from plant to port, providing fast access to distribution channels. Air-freighted produce can arrive at interstate and overseas markets within 48 hours of dispatch. Daily freight shipping services from Tasmania's major ports mean refrigerated shipments can be in major interstate markets such as Melbourne within 24 hours of dispatch.

RENEWABLE ENERGY GENERATION

As an island, Tasmania has enormous potential to harness its onshore, marine and offshore wind energy capacity. Wind farms located in Tasmania produce more energy than almost all proposed Renewable Energy Zones (REZ) on mainland Australia and provide greater resource diversity than mainland wind farms. Tasmanian wind farms have a greater efficiency which means less capacity is required to produce the equivalent volume of energy. Tasmania also has some of the best offshore wind resources in Australia with average wind speeds in the range of 9-10m/s found in Bass Strait and over 12m/s found south of Tasmania. Offshore wind can provide a diversity of energy supply due to its availability when solar power and onshore wind are unavailable. The state's offshore wind resource has already attracted the attention of a number of renewable energy proponents.

Tasmania also benefits from its capacity to import and export electricity via the Basslink interconnector, with Tasmania's renewable energy supply making an important contribution to meeting peak demand levels interstate.





HYDROGEN

As the world increasingly looks to decarbonise, Tasmania offers the perfect environment for industry and investors looking to be at the forefront of the rapidly emerging hydrogen industry.

Tasmania's natural advantages with reliable wind and extensive water resource as well as expertise in renewable energy offers investors a truly unique proposition. The mix of established reliable renewable generation can enable a renewable hydrogen industry much sooner, and likely at lower cost, than can be achieved in other Australian states.

The Tasmanian government is supportive of seeing a hydrogen-based industry flourish within the state both for export and domestic application, and this vision has been articulated in the Tasmanian Renewable Hydrogen Action Plan. This plan sets out the Government's goals and actions to position Tasmania as a leader in the large-scale production of renewable hydrogen with the aim to see the export of renewable hydrogen commence by 2027 and be a significant global producer and exporter of renewable hydrogen by 2030.

The *Tasmanian Green Hydrogen International Engagement and Export Strategy* sets out the vision for Tasmania to strengthen international partnerships in the field of green hydrogen. The strategy, along with a variety of hydrogen resources, including a fact sheet for proponents, are available online: recfit.tas.gov.au/future_industries/green_hydrogen

To help accelerate a domestic hydrogen industry in Tasmania, the government has funded a demonstration project with the Tasmanian Government-owned bus operator. The project will see three hydrogen fuel cell buses operating alongside traditional buses on routes around Hobart early in 2024. The government has partnered with the Blue Economy Cooperative Research Centre for the supply of Green hydrogen.

BIOENERGY

ACCESS TO RESOURCES

Tasmania's abundance of suitable resources for biomass projects, comprising forest biomass, food processing and agricultural residues, make the state an ideal location to capitalise on opportunities, including:

- biomass to heat projects
- pellet production projects
- biochar production
- liquid biofuels.

A research report commissioned by the Department of Natural Resources and Environment Tasmania in 2022, reported that over 811 kilo-tonnes of waste was generated by Tasmanian industries in 2020, with the bulk coming from manufacturing operations. A summary of the total waste and landfilled waste per sector is included below

SECTOR	TOTAL ORGANIC WASTE GENERATED		TOTAL ORGANIC WASTE TO LANDFILL	
	ktpa	% of total org. waste	ktpa	% to landfill
Manufacturing	438.2	54%	67.6	39.8%
Primary industries	134.5	17%	0.3	0.2%
Municipal solid waste	132.7	16%	58.1	34.2%
Water supply	57.4	7%	NA	NA
Commercial	45.9	6%	40.8	24.0%
Construction and demolition	3.2	0.4%	3.2	1.9%
Total	811.9	100%	169.9	100%

Further, Tasmania produces large quantities of various organic waste and residues which were not captured in the Natural Resources and Environment Report mentioned above that could be used to produce a wide range of energy types.

The Australian Biomass for Bioenergy Assessment (ABBA) Project funded by the Australian and Tasmanian governments recently found that Tasmania annually produces 7.8 million tonnes of liquid organic waste and 1.4 million tonnes of solid organic waste from municipal, agricultural, forestry and industrial sources. There is an opportunity for some of Tasmania's energy market to be supplied by bioenergy.

Tasmania has a long-established legacy in forestry, agriculture and food processing. These industries form an ideal basis on which to build bioenergy capabilities.

STORAGE (BATTERY)

ACCESS TO QUALITY RAW MATERIALS

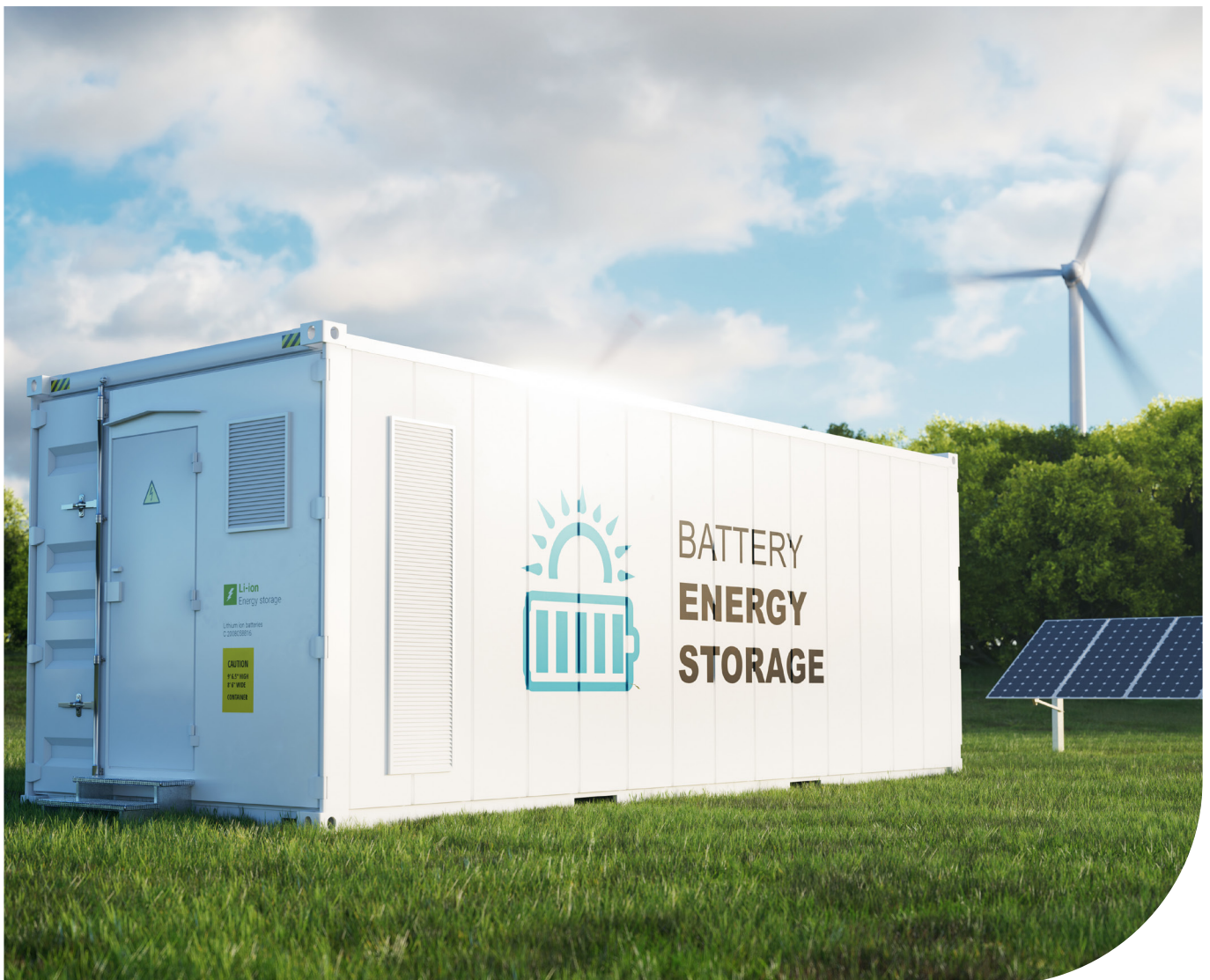
Tasmania has many of the elements the world needs to make advanced technology like smartphones, computers, solar panels, batteries and electric vehicles. Tasmania is already a world-leading resource exporter and supply many countries with high quality, ethically sourced minerals using environmentally sustainable practices.

In terms of sourcing minerals that Tasmania does not have readily available locally, these are easily sourced from other areas of Australia, where the world's largest deposits of lithium and rutile are found as well as the second largest production of zircon and rare earth elements. Furthermore, Tasmania has potential for more undiscovered minerals as mining regions are largely under-explored.

GREEN MANUFACTURING

Tasmania is Australia's leader in renewable energy and is committed to sustainability, offering a compelling location for investors who wish to achieve real sustainability targets through renewable energy and use of recycled materials.

Tasmania is open to investors who are committed to minimising their environmental footprint



MAJOR INFRASTRUCTURE PROJECTS

In response to Australia's forecast energy demand, Tasmania is leading the way with a number of large-scale energy sector projects.

Supported by the Australian and Tasmanian governments, the Battery of the Nation initiative and Project Marinus are two nationally significant projects designed to increase Tasmania's renewable energy contribution to meet the future needs of the National Energy Market (NEM).

In October 2022, the Tasmanian Government signed a new partnership agreement with the Australian Government to take the next steps in a Tasmanian energy package comprising of Marinus Link, the North West Transmission Development and Battery of the Nation. The agreement includes commitments to concessional finance, ownership and cost allocation arrangements for the projects with a Final Investment Decision on Marinus Link planned for late 2024. The Battery of the Nation project development timings and investment decisions are aligned with Marinus Link.

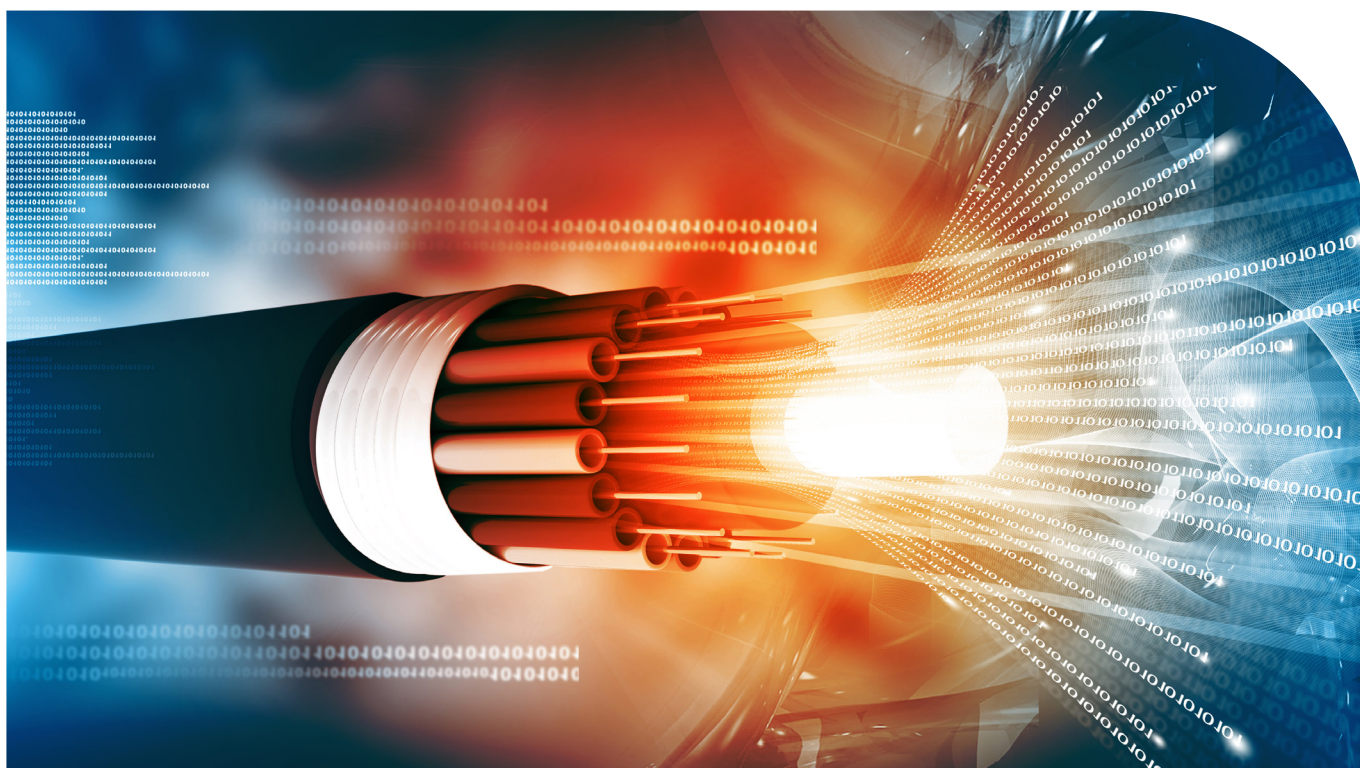
BATTERY OF THE NATION

Tasmania's Battery of the Nation initiative addresses the future opportunities for Tasmania to increase its renewable hydro-electricity contribution to meet the needs of the National Electricity Market (NEM).

As a pioneer of hydro power, Tasmania is well placed to increase existing hydro-electric capacity and flexibility. This includes dispatchable capacity from a combination of hydropower system expansions, the potential for a new pumped hydro station, additional wind and more transmission and interconnection through Project Marinus.

Hydro Tasmania's Battery of the Nation pre-feasibility study, jointly funded by the Australian Renewable Energy Agency (ARENA), identified a strong portfolio of cost-competitive future pumped hydro opportunities with a combined capacity of 3,400 MW. Importantly, the study also highlights Tasmania's renewable energy opportunities, including deep storage, are cost competitive with all other realistic options for Australia's energy future.





MARINUS LINK AND NORTH WEST TRANSMISSION DEVELOPMENTS

Marinus Link is a key part of Tasmania's Battery of the Nation initiative and is the proposed second subsea interconnector for electricity and telecommunications transmission between Tasmania and Victoria.

The Australian Energy Market Operator (AEMO) has confirmed that Marinus Link is a critical and urgently required part of Australia's low-cost, reliable and clean energy future.

The Marinus Link project comprises of 255 kilometres of undersea high voltage direct current (HVDC) cables across the Bass Strait and 90 kilometres of HVDC underground cables in Victoria, connected to AC/DC converter stations in Tasmania and Victoria. Marinus Link is supported by the North West Transmission Developments (or NWTD) transmission augmentations in Tasmania. The NWTD includes 240 kilometres of new and upgraded transmission infrastructure and will support the connection of Marinus Link and new generation investment in the state. The Marinus Link project and the NWTD projects are collectively referred to as Project Marinus.

Investigations into Marinus Link identified that up to 1,500 MW of additional interconnection from Tasmania to Victoria across Bass Strait by the late-2020s is technically feasible and commercially viable, unlocking low-cost, reliable and clean Tasmanian renewable energy for the benefit of the nation.

The two 750MW Marinus Link stages combined with on-island transmission upgrades and new generation (including Battery of the Nation and new wind farm developments) will allow Tasmania to generate and export more of our renewable, reliable and dispatchable energy resources into the NEM. Importantly, the links will also unlock additional renewable energy investment in the state for both generation and load proponents.

Marinus Link, together with the North West Transmission Developments and broader renewable energy investments, are expected to create up to 2,800 direct and indirect jobs during construction in Victoria and Tasmania, deliver up to \$7.1 billion of economic stimulus to Tasmania and contribute estimated savings of at least 150 million tonnes of CO₂ equivalent by 2050.

OPPORTUNITIES

RENEWABLE ENERGY ZONES

Australia's Integrated System Plan (ISP) identifies that Tasmania not only is an ideal site for additional pumped hydro resources and wind resources, it also identifies several candidate areas of high resource quality that could be unlocked in coordination with transmission network investment. In Tasmania three areas are identified in the north west, north east and central areas of the state and one offshore wind zone in Bass Strait off the north west coast of Tasmania.

Renewable Energy Zones (REZs) are expected to play a key role in minimising the cost of build out for Tasmanian customers and connecting generators through optimising the design of the power system. REZs cannot only coordinate development in areas with excellent renewable resources but also help minimise and manage the impact on other important values such as land use, environment, heritage and tourism.

In 2022 the north west of Tasmania was identified as the first region to be explored in detail for its potential to host the state's first REZ because:

- It provides for the largest capacity of up to 1,200MW and lowest cost per MW of shared upgrade of three REZ regions.
- It contains the highest level of commercial interest of all three regions (around 4.8GW).
- There is 1,450MW of new wind generation capacity seeking to be operational by 2030 in the NW REZ region and a further 460MW seeking to come online in 2031.
- It has strong alignment with Marinus Link and NWTG and ability to help to support new load.

Concessional finance arrangements will minimise the customer impacts for the NWTG compared to shared network augmentations required to support other candidate REZs.

All REZs are likely to be required to meet the Tasmanian Government's fulsome vision and will be developed as new load and generation are committed in these regions.

Map key







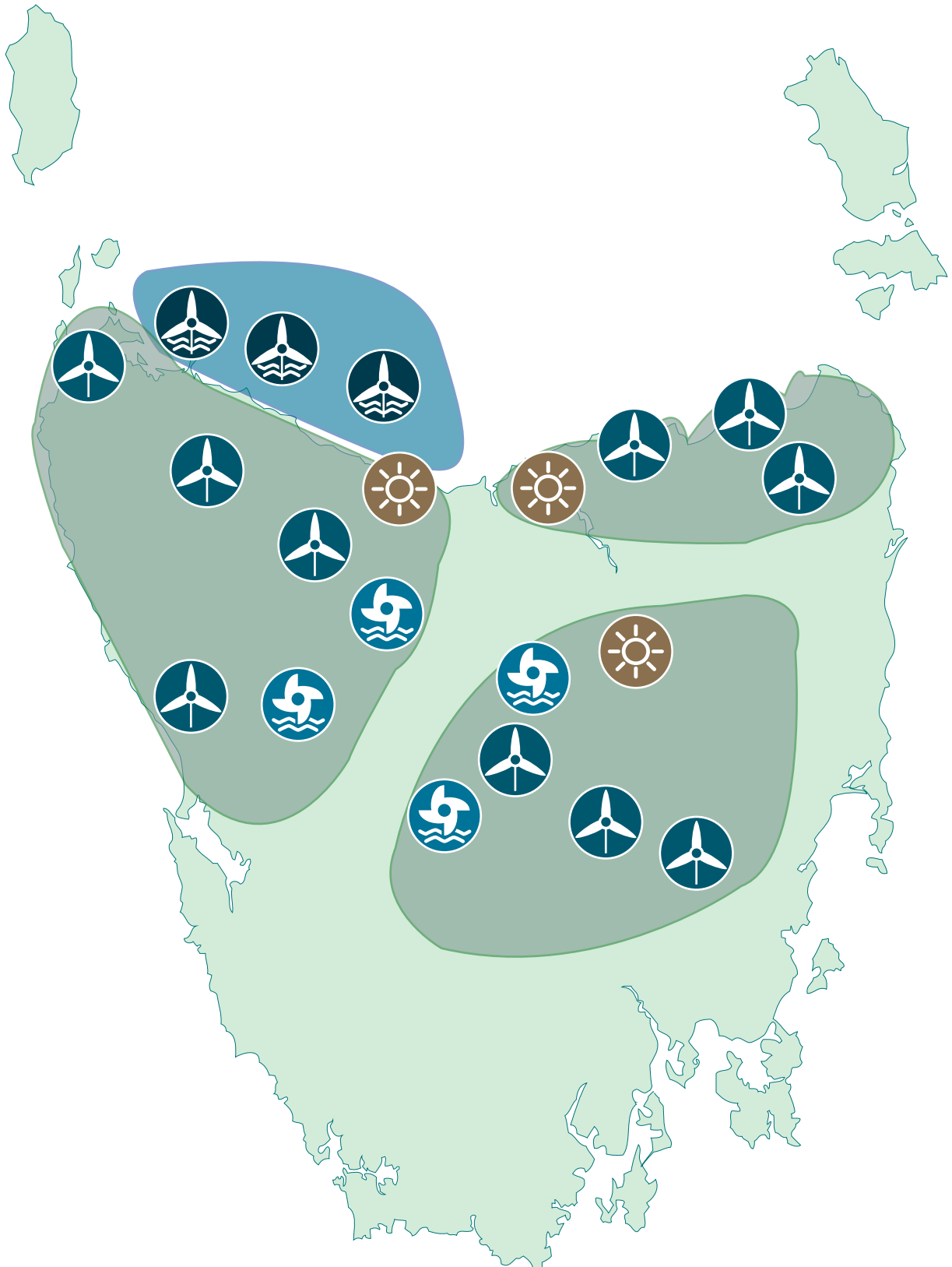
-  Candidate Renewable Energy Zone (REZ)
-  Candidate Offshore Wind Zone (OWZ)
-  Indicative wind farm
-  Indicative offshore wind farm
-  Indicative solar farm
-  Indicative pumped hydro

FIGURE I: 2022 RENEWABLE ENERGY ZONES, AUSTRALIAN ENERGY MARKET OPERATOR (AEMO)



TASMANIAN GREEN HYDROGEN HUB

The establishment of a green hydrogen hub at Bell Bay is a priority for the Tasmanian Government. The hub provides an ideal environment and the infrastructure necessary for operations, unlocking the potential for large-scale green hydrogen exports and supporting domestic market activation in Tasmania and on the mainland.

The Bell Bay Hydrogen Hub is in line with Tasmanian Renewable Hydrogen Action Plan which sets the ambitious goal of Tasmania as a globally significant exporter of green hydrogen from 2030.

The development of the first stage of the hub relies on commissioning of up to 1GW of additional wind or solar generation to support the prospective projects, as well as updates to the port, transmission infrastructure and the provision of additional water.

Once operational the hub will provide the necessary infrastructure for hydrogen proponents to establish large-scale green hydrogen and hydrogen derivatives production facilities at Bell Bay and enable the scaling-up of these facilities over time.

PIPELINE OF PROJECTS

Industry and investors are already realising the potential of Tasmania's renewable energy industry with a number of projects either commissioned, planned or underway.

Wind – significant wind farms in the pipeline – more than \$2 billion planned investment

- Cattle Hill – 150MW – commissioned Dec 2019
- Granville Harbour – 112MW – commissioned Dec 2020
- Robbins Island – up to 900MW
- Jim's Plain – up to 240MW
- North East Wind Farm in excess of 1,200MW
- Whaleback Ridge – up to 1,500MW
- Epuron developments – up to 800MW
- Bass Offshore Wind Energy project – up to 1,000MW

Green hydrogen and derivatives – significant pipeline of proposed hydrogen and derivative producers including:

- ABEL Energy – Green Methanol
- Fortescue Future Industries – Green Hydrogen
- HIF – E-fuel manufacturing
- Origin Energy – Green Hydrogen & Ammonia
- Woodside – Green Hydrogen & Ammonia

SKILLED WORKFORCE

Tasmania's total labour force totals about 271,000 people with manufacturing one of the State's most significant employment sectors ranking in the top eight out of 19 industries by employment.

The workforce benefits from the strong education culture fostered by Tasmanian educational facilities. The University of Tasmania is consistently ranked in the top 10 research universities in Australia and within the top 2 per cent of universities worldwide.

The Tasmanian workforce is adaptive and able to flex according to industry and economic situations. Tasmania's workforce varies from month to month in numbers that can exceed what a typical proponent is looking for in its total workforce.

In 2020–21, Tasmania invested more than \$100 million to support Tasmania's workforce training and development system under the Skills, Training and Workforce Growth portfolio. To help meet the target of a 40 per cent increase in apprenticeships and traineeships by 2025 and to support businesses across the state secure enough skilled workers to help them grow, the Tasmanian Government introduced the Apprentice and Trainee Grant for Small Business, which extends the previous targeted grants program to all industries.

Across 2020–21, Tasmania made significant progress in delivering the \$16.1 million Energising Tasmania training initiative with the release in October 2020 of both the Energy and Infrastructure Training Market Development Fund and the Energy and Infrastructure Workforce Development Fund. The number of eligible qualifications under the Energising Tasmania Training Fund was extended to more than 100, which includes qualifications in engineering and other industrial trade professions.

Tasmania can supply a skilled workforce to proponents as well as offering collaboration opportunities with our training organisation to continue a strong pipeline of apprentices, graduates and skilled tradespeople. It is anticipated a vast majority of workers will be able to be sourced domestically but, in the event that staff are required to be recruited from outside the state, Tasmania's desirability as a place to work, live and raise a family will continue to help businesses attract the required workforce.

In addition, Tasmania has a sizeable Fly-In Fly-Out (FIFO) workforce that resides in Tasmania yet travels to mainland Australia to work. Given the opportunity of being able to both reside and work in the state, workers within this group could be attracted by the client to work at an on-island operation.

Recent data indicates there are more than 4,000 FIFO technicians and other trade workers based in Tasmania. These workers are generally well skilled and experienced and are likely to require minimal training.

Tasmania is increasingly attracting global attention for the work and lifestyle options it can offer, its geography, climate and culture, as well as its very close proximity and easy access to mainland Australia.

SERVICES AND ACCESS

ROAD

The Tasmanian road network extends over 24,000km across the state.

The road network is owned by the Tasmanian Government and includes the National Network, major regional and local roads. The National Network covers Tasmania's major inter-regional freight and passenger routes, linking major urban centres across the State, including Burnie, Devonport, Launceston and Hobart and provides easy access to major ports and airports.

Given the importance of the ports of Bell Bay, Burnie and Devonport to the state, the region is linked to Tasmania's major freight corridor from Hobart to Burnie. This road (and rail) corridor is maintained to Tasmania's highest freight infrastructure standards.

Vehicles up to the size of tri-axle semi-trailers have general access to the entire road network. Roads are assessed as suitable for High Productivity Vehicles (HPV) and Higher Mass Limit Vehicles (HMLV). The approved HPV/HMLV networks allow movement of vehicles up to B-double size along most of Tasmania's key freight routes. Road is the dominant mode for freight and passengers across Tasmania.

FUEL

Catering for light and heavy transport vehicles, a 24-hour self-service fuel facility provides diesel and unleaded fuel.

Tasmania also benefits from a network of 24/7 liquefied natural gas (LNG) refuelling stations strategically located across the state for use by the heavy transport sector. The closest industrial scale, 24/7 LNG refuelling station to the Bell Bay Advanced Manufacturing Zone (BBAMZ) is located about 50 minutes' drive at Westbury.

RAIL

The Tasmanian rail network is a freight only network connecting major ports, cities and processing industries within the state. It is an essential transport mode for the movement of bulk goods and provides an alternative transport mode to road in a contestable freight market. For those wishing to engage rail service, the Tasmanian Government owned operator of the rail network, TasRail, specialises in short haul freight and has a proven track record in logistics capability across the supply chain. TasRail transported 499 million net tonne kilometres of freight in 2021–22.



PORT

TasPorts is a state-owned company responsible for managing and operating eleven Tasmanian ports and the Devonport Airport.

As an island state, Tasmania is reliant upon shipping, port infrastructure and port operations to sustain our communities and our economy.

Each year 99 per cent of the state's freight moves through TasPorts' multi-port network.

Tasmania's four major ports are the Port of Hobart, Port of Burnie, Port of Devonport and the Port of Bell Bay. In 2021–22 container volumes were highest at Devonport (304,865 TEU) and Burnie ports (267,479 TEU), which together account for 94 per cent of Tasmania's total container volumes.

PORT OF HOBART

The Port of Hobart is Australia's second oldest port and the birthplace of modern Tasmania. The port supports a variety of industries including a vibrant Antarctic exploration community, commercial fishing fleet, bulk fuel imports and bulk log exports, as well as tourism, public events and cruise ships.

The Port of Hobart is the primary link between Tasmania and the Antarctic.

The Port of Hobart is situated on the Derwent River and handled ~1.76 million tonne of freight in the 2021/22 financial year. In respect of Twenty-Foot Equivalent (TEU) unit movements, the port handled 0.5 per cent (2,840) of Tasmania's total movements over the same period.

PORT OF BURNIE

The Port of Burnie in the State's north west, is located on the western shore of Emu Bay adjacent to the city of Burnie. Owned and operated by TasPorts, it is one of the state's key deep-water ports.

The Port of Burnie is Tasmania's highest volume port, in the period July 2021 to June 2022, over 5.3 million tonnes of freight were processed through the facility. A total of four berths at the port accommodate for a variety of ships capable of transporting containers/general freight (Toll ANL), bulk minerals, general and container freight and woodchips.

Intermodal infrastructure at the port includes a bulk mineral concentrate ship-loader (1,000 tonnes per hour capacity) and storage shed, bulk woodchip loader (1,200 tonnes per hour capacity) and stockpile area (200,000 tonne capacity). Privately owned assets include Toll's long-term container terminal lease and TasRail's bulk mineral ship-loader and storage facility.

The Port of Burnie will be further developed as a dedicated bulk export terminal which will support exponential growth in Tasmanian mineral exports to global markets, together with growth in other commodities such as forestry and container export.

This will enable increased capacity for larger vessels to berth at the port and will ensure fit-for-purpose terminal infrastructure. The expansion will accommodate future growth of up to 10 million tonnes of mineral export.

The port is accessible and navigable, with draft of up to 14.6 metres.

PORT OF DEVONPORT

The Port of Devonport is a key entry point into Tasmania for tourists and locals alike, as home to the iconic Spirit of Tasmania, moving passengers and vehicles between Tasmania and Melbourne. As a major cargo port, between three million to four million tonnes of freight is transited through the port each year. The Port of Devonport is the primary trade link for freight and passengers between Tasmania and mainland Australia.

A generational transformation is planned for the port. The redevelopment will ensure the greatest shipping capacity and optimal port configuration for the next 50 years.

The redevelopment will provide the ability for operators to handle an additional 85,000 20-foot equivalent containers (TEU) per annum, boosting capacity by 25 per cent and an additional 7,000 freight cars, increasing capacity by 20 per cent.

This \$240 million project recognises the importance of Devonport to the Tasmanian freight and tourism sectors. The project is shovel ready and commenced in 2021, with completion expected in December 2026.

The Port of Devonport is located near the mouth of the Mersey River and transits approximately 4 million tonnes of freight per year. The port provides for a range of domestic and international usages including container services, general cargo, fuel import/export, cement import/export and passenger ferry services.

Additionally, the port benefits from an adjacent bonded warehouse and storage facilities, as well as a fully accredited Australian Quarantine and Inspection Service (AQIS) wash bay. The port hosts a daily service to Geelong comprising large cargo vessels and two fast passenger ferries which carry semi-trailers and tourist vehicles.

The port is accessible and navigable with draft of up to 11.5 metres.





PORT OF BELL BAY

The Port of Bell Bay is a major port for domestic and international bulk goods as well as container services. With more than 3.7 million tonnes per annum of freight handled, the port provides all-weather access, a direct rail link and significant infrastructure capable of handling bulk and container freight movements.

The port handles freight such as minerals, timber, timber products, fuels and food products. Full port services are provided including pilotage, towage, fuel, provisioning, stevedoring, quarantine and maintenance.

The port is ideally situated less than 250 nautical miles from the Port of Melbourne, Australasia's largest maritime hub for containerised, automotive and general cargo, and provides an important linkage to Australia's extensive rail network. The Port of Singapore is situated approximately 3,926 nautical miles from the Port of Bell Bay.

The port features extensive lay down areas both portside and waterside. A range of level, secure, landside areas along with a variety of on-site buildings are available for lease by arrangement with TasPorts.

Local capabilities are further enhanced upstream by Southern Marine ShipLift's Syncrolift. Located on the Tamar River approximately four hours' steaming time from Bell Bay, Southern Marine offers an out-of-water service and dockside ship repair services to all marine vessels. The port is accessible and navigable, with draft of up to 11.5 metres.



ELECTRICITY

The Tasmanian electricity supply industry comprises the generation, transmission, distribution and retail sectors as well as its relationship with the National Electricity Market (NEM) via the Basslink interconnector. The main participants in the Tasmanian electricity supply industry are:

- Hydro Tasmania – A state-owned company that owns and operates the assets responsible for most of the electricity generation in Tasmania.
- TasNetworks – A state-owned company that is the owner and operator of the electricity transmission and distribution, systems and the supporting telecommunications network.
- Aurora Energy – A state-owned energy retailer operating in Tasmania.
- ERM Power – An energy retailer owned by Shell and operating in Tasmania, providing service to business customers.
- Basslink – Connects the electricity transmission systems of Tasmania to the mainland state of Victoria enabling Tasmania to participate in the NEM. Basslink is a privately-owned market link.

GAS

The Tasmanian Gas Pipeline supplies natural gas to Tasmania under Bass Strait with the main pipeline then running adjacent to the nearby East Tamar Highway. The gas network route extends to provide a natural gas option to businesses in both the light industrial and heavy industrial areas.

Any prospective client can access the high-pressure transmission pipeline and the low-pressure distribution pipeline that is reticulated through the industrial zones.

The Tasmanian Gas Pipeline has the capacity to transport 129 TJ/day of natural gas to Tasmania. The current supply and demand profile for natural gas in Tasmania demonstrates there is ample natural gas available to meet the level of demand required by heavy industry and to support significant industrial growth.

INTERNET

Tasmania was the first state in Australia to benefit from connection to the national broadband network (NBN). This super-fast broadband technology provides Tasmania with the speed and integrity of digital technology demanded by business and industry in the 21st century.

NBN fixed line services are available in the Bell Bay Advanced Manufacturing Zone for connection.



WATER SUPPLY AND WASTEWATER TREATMENT

TASWATER

Tasmania's water supply and wastewater treatment is managed by TasWater and regulated by the Environment Protection Authority.

According to TasWater's annual report from 2021-22, the entity oversees:

- total assets of \$2,535.9M
- 218,581 water connections
- 189,922 sewerage connections
- 4,879km sewer mains
- 6,528km water mains
- 60 drinking water systems
- 954 water and sewage pump stations

TasWater is owned by Tasmania's 29 Local Governments.

TASMANIAN IRRIGATION SCHEME

Tasmanian Irrigation has planned, constructed and now manages the delivery of water to 18 irrigation schemes around Tasmania, as well as inherited schemes and infrastructure constructed prior to Tasmanian Irrigation's formation. The state-owned company manages over 134,000ML of water entitlements and has infrastructure valued at \$492 million. By 2025, Tasmanian Irrigation will manage a portfolio of irrigation infrastructure valued at more than \$680 million, capable of delivering 168,998 megalitres of water via 1,451 km of pipeline, 55 pump stations, 24 dams and three power stations.

Further information on the active schemes can be found at the link below.

tasmanianirrigation.com.au/active-schemes-map



SUPPORT

CLEAN ENERGY FINANCE CORPORATION

The Clean Energy Finance Corporation (CEFC) supports and accelerates investment in Australia's transition to net zero emissions. Funding and support are available through a range of programs including:

- Startmate Accelerator – for industry startups
- Advancing Hydrogen Fund which supports a clean, innovative, safe and competitive hydrogen industry
- Clean Energy Innovation Fund which is investing in companies with potential for both domestic and global market application in technologies.

Further information is available at www.cefc.com.au/

GOVERNMENT POLICY

The Tasmanian Government is committed to being a global leader in renewable energy, surpassing the state's 100 per cent self-sufficient in renewable energy target in 2020, two years earlier than expected.

Maintaining its leadership position, legislation has been passed to enact Tasmania's Renewable Energy Target (TRET) which sets renewable energy target of 200 per cent of the state's 2020 baseline of 10,500 GWh by 2040.

Legislating the TRET provides confidence for investment in new renewable energy projects, ranging from distributed energy resources including rooftop solar PV units, battery storage, electric vehicles and chargers to large scale hydro, wind and solar generation.

EXPLORE THE OPPORTUNITIES

The Office of the Coordinator-General is Tasmania's principal entity to attract and support investment in the state. It provides free confidential services and professional advice to investors, including:

- providing information on Tasmania's industry capabilities and strengths, specific business opportunities, investment regulations and government assistance
- assisting to identify and select the best Tasmanian site for a business
- facilitating visits to Tasmania and arranging appropriate meetings and introductions
- providing introductions to local industry, government departments and potential joint-venture partners
- introductions to the government's trade team to assist access to export markets.

Office of the Coordinator-General

CH Smith Centre, 20 Charles Street, Launceston

PO Box 1186, Launceston, TAS 7250 Australia

Phone: +61 3 6777 2786

Email: cg@cg.tas.gov.au

Web: cg.tas.gov.au

Copyright Notice and Disclaimer

Copyright in this publication is owned by the Crown in Right of Tasmania, represented by the Department of State Growth.

The Crown, its officers, employees and agents do not accept liability however arising, including liability for negligence, for any loss resulting from the use of or reliance upon information in this publication.

Images used within this publication remain the property of the copyright holder.

Images courtesy of the Tasmanian Government, Vestas Granville Harbour Operations, Matthew Stephens, Chris Crerar, Rob Burnett, TasNetworks and Simon De Salis.

© State of Tasmania February 2023





