



TASMANIAN GREENS

ENERGY STRATEGY

**A Renewable and
Secure Energy Supply
for Tasmania**



GENERATING A NEW RENEWABLE WAVE

Renewable energy is essential to Australia's future prosperity in a world focused on reducing carbon emissions. Australia needs an estimated \$100 billion investment between now and 2050 to build renewable generation and meet our existing (inadequate) greenhouse gas targets. As those targets necessarily increase, so too will the potential investment. The race is on around the country to attract that investment, and the economic, social and environmental benefits that will come with it.

Moving to decentralise our electricity supply is a key priority for government. Even so, centralised electricity generation at medium to large-scales will remain an important part of our energy generation mix for the foreseeable future. Renewable energy projects at these scales are efficient and can quickly deliver a significant increase in generation capacity.

At the moment, Tasmania has a competitive advantage in the Australian electricity market. We can use Hydro's water storages like rechargeable batteries to balance the power swings of other renewables (wind, solar and wave) and release electricity back into the grid to match demand.

Other states are constrained at present by the intermittent nature of most renewable energy production. However, we should not be complacent. South Australia and the ACT have already set ambitious emission reduction targets, and have secured large investments in support of these.

With an appropriate policy and regulatory environment, Tasmania could attract billions of dollars of investment in new renewable generation projects. This would attract new industries and create thousands of jobs to deliver the associated infrastructure and services. It would drive research and development that capitalise on our unique advantages. If we act early, we have a brand advantage in marketing Tasmania as a low carbon economy, which could be used to attract large-scale modern industries that want to be powered by 100% renewable energy.



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Over time, increase the proportion of annual profits from TasNetworks and Hydro Tasmania that are re-invested into positioning Tasmania for a secure renewable future.

4.2 MAXIMISING OUR HYDRO ADVANTAGE

Guarantee adequate resourcing for Hydro to maintain and improve existing hydro generation assets.

4.3 COMMUNITY AND ENVIRONMENT FIRST

Make sure the interests of the community and the environment are the central focus of every renewable energy project.

4.4 MAKE AN INVESTMENT-FRIENDLY ENVIRONMENT

Push for federal policies that promote investment in renewable energy generation.

4.5 COMMISSION MEDIUM TO LARGE-SCALE RENEWABLES

Implement a medium to large-scale feed-in tariff and reverse auction mechanism to drive the necessary investment in medium to large-scale renewable generation capacity.

4.6 ESTABLISH RenewTAS

Establish an independent statutory authority, RenewTAS, to facilitate potential renewable investment from around the world, and to conduct reverse auctions for medium to large-scale renewable energy projects.

4.7 SKILLS FOR THE NEW RENEWABLE INDUSTRY

Skill our workforce to make sure Tasmanians can take up the opportunities of the dramatic expansion in renewable energy generation.

4.8 PUBLIC OWNERSHIP OF KEY ASSETS

Keep strategic energy assets the property of Tasmanians.

4.9 PLANNING FOR EXCESS RENEWABLE POWER

Develop a plan for how Tasmania will manage the generation of excess renewable electricity.



4.1 FUNDING A RENEWABLE FUTURE

Over time, increase the proportion of annual profits from TasNetworks and Hydro Tasmania that are re-invested into positioning Tasmanian for a secure renewable future.

Hydro and TasNetworks are owned by the community. Successive Labor and Liberal governments have taken hundreds of millions of dollars from TasNetworks and Hydro Tasmania to prop up other parts of the budget. In 2014 the Liberal Government increased the percentage of dividends it requires from both companies from 60% to 90%.

The short-termism that has existed in relation to taking large dividends has left these companies without the ability to adequately re-invest in preparing for a secure renewable energy future.

During the period of the carbon tax, Hydro Tasmania generated cash from operations of \$262 million in 2012-13 and \$243 million in 2013-14. That revenue came at the expense of Hydro's water storage, which fell dramatically over the same period. Instead of investing that money in new renewable generation capacity, including transmission and ancillary services, to secure our energy supply, nearly 90% of the funds disappeared into the Government's budget.

Similarly, TasNetworks returned \$377 million to government in 2014-15, in addition to taking on \$255 million in debt transfers from other government businesses (TasRail, Forestry Tasmania, and Hydro), with another \$120 million in debt to be transferred to it over the next two years.

These huge profits also show just how much financial capacity we have as a state to secure a renewable energy future. Hydro has already downgraded its electricity output by 10% due to climate change, and this may need to be readjusted again in future. Nonetheless, we can still expect high rainfall years that can be used to support the actions in this Strategy.

4.2 MAXIMISING OUR HYDRO ADVANTAGE

Guarantee adequate resourcing for Hydro to maintain and improve existing hydro generation assets.

Hydro Tasmania has a long and strong history. The people who built and maintain our world-class hydroelectric schemes have a lot to be proud of. As a result of this vision and labour, Tasmania has an incredibly robust and responsive source of clean energy that uses our high rainfall and mountainous terrain. Its breadth and diversity (30 power stations and 55 major dams across different rainfall regions) is an asset unique in Australia.

We have to continue to invest in Hydro's infrastructure to make sure we sustain this legacy, and to find the most cost-effective ways of increasing its output. This requires the government to make adequate resources available for Hydro to maintain and improve its large asset base through their rolling ten-year asset management plan.

4.3 COMMUNITY AND ENVIRONMENT FIRST

Make sure the interests of the community and the environment are the central focus of every renewable energy project.

We Tasmanians are all "key stakeholders" in renewable energy projects. We are the beneficiaries of the power that's created, and ultimately we bear the costs (directly or indirectly) of power production and supply.

There are benefits and disadvantages for all medium and large-scale renewable energy projects. We have to assess the possible impacts on land and wildlife, visual changes, the effect of noise and waste, and the risk of financial losses or mismanagement. And there are equal imperatives to reduce carbon emissions, consider the economic benefits of jobs and investment, secure our power supply, and reduce power prices.

Experience shows that community support for renewable energy projects is fundamental to their success. Governments need high levels of engagement with local communities from the very beginning of a renewable energy project. People's views have to be listened to and incorporated at every stage of a renewable energy project.

The government has a leading role in commissioning studies to identify the environmental consequences of particular types of renewable generation technology, including the potential local and long-term impacts. We need governments to strongly enforce standards that protect the interests of the environment and community for renewable generation projects. It must then respond through implementing measures to mitigate any identified negative impacts.

4.4 MAKE AN INVESTMENT-FRIENDLY ENVIRONMENT

Push for federal policies that promote investment in renewable energy generation.

The Carbon tax period showed us how federal policies can create conditions to stimulate investment in renewable energy generation. During that period, Tasmania profited to the tune of hundreds of millions of dollars by selling clean energy to the mainland.

However, the policy changes and resulting uncertainty in business conditions that have happened since the Federal Liberal Party has been in government caused investments in renewable energy projects to stall.

Changes to the Renewable Energy Target (RET), the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC) means there are fewer financial incentives for investment in renewable energy infrastructure. There is a shadow of uncertainty around the future of these institutions, which makes getting finance for projects harder as lenders became more wary.

These federal policies continue to substantially affect the investment landscape for Tasmania, and they hinder the development of a new wave of renewable energy generation.

The Australian Greens propose to:

- increase our national renewable energy target to 90% by 2030;
- increase the guaranteed funding for the Clean Energy Finance Corporation to \$30 billion over ten years; and
- reverse the \$717 million in Budget cuts to ARENA.

These actions will stimulate investment in new renewable generation capacity for the benefit of all Tasmanians. The government needs to actively lobby on behalf of our state's interests at the federal level in favour of these and other strong market incentives.

Hydro generation in Tasmania makes a substantial contribution to Australia meeting its national greenhouse gas emission reduction obligations. The government needs to argue the case to expand the terms of the RET so that Hydro can be fairly rewarded for the upgrades it makes to our hydro generation assets. Without these, Australian carbon emission reductions would be compromised.

4.5 COMMISSION MEDIUM TO LARGE-SCALE RENEWABLES

Implement a medium to large-scale feed-in tariff and reverse auction mechanism to drive the necessary investment in medium to large-scale renewable generation capacity.

With appropriate mechanisms in place, medium to large-scale renewable generation projects can increase our renewable generation capacity quickly, and at the lowest cost to Tasmanians.

A medium to large-scale feed-in tariff scheme allows governments to grant tariff entitlements to companies for the renewable electricity they generate.

Reverse auctions let the competitive market bid on the lowest feed-in tariff price they can reliably supply power for. The government, through an independent statutory authority, selects a preferred bid that delivers the best value through balancing price, track record for delivering similar projects, planning approvals and level of community engagement. Developers are guaranteed a minimum price per unit of electricity they produce, usually for 20 years, which gives them the security they need to build the project.

The federal government has encouraged Australian states to adopt reverse auctions if they want to install more renewable energy. The ACT is leading the way with a 100% renewable energy target by 2025. Using reverse auctions, they have accounted for nearly all of the new build of large-scale generation in the last couple of years. Reverse auctions for this scale of energy projects have also been successfully used internationally (UK, China, Brazil, Chile).

Renewable energy generation prices continue to plummet, as technology expands and competition grows. In Chile's latest energy auction, renewable energy technologies beat coal and gas competitors to provide the cheapest price for electricity. Five global wind and solar companies were awarded 20 year contracts to supply the Chilean electricity market. The average price for the Chilean auctions was US\$79 per MWh, which was 40% less than the price initially tendered in 2013 (US\$130/MWh).

For Tasmania to secure 100% of its net electricity needs from renewable energy and be a net exporter of renewable electricity by 2022, we need a big push from government.

An initial auction for 600 MW of new renewable generation capacity is proposed. To get the best environmental, social and economic outcomes for the state, the 600 MW auction may result in the awarding of multiple contracts to supply the Tasmanian electricity market. As an example, 10 different companies could be awarded contracts to build: three separate wind farms (400 MW); an upgrade of existing hydro generation assets (50MW); one wave power project (50 MW); two micro-hydro projects (25 MW); and three solar projects (75 MW).

This is achievable. The amount of 600MW is the same installed wind capacity that was proposed by TasWind for King Island. South Australia has expanded its wind generation capacity to 1473 MW. The Australian Capital Territory has more than 800 MW of wind power already operating or approved, and another 1700 MW in development. Solar, wave, micro-hydro, tidal, and geothermal generation are now all competitive with thermal on medium to large-scales, or will be in the near future.

For Tasmania to reach the proposed target for renewable generation, regardless of rainfall, additional auctions would be required to further increase generation capacity in the State.

4.6 ESTABLISH RenewTAS

Establish an independent statutory authority, RenewTAS, to facilitate potential renewable investment from around the world, and to conduct reverse auctions for medium to large-scale renewable energy projects.

RenewTAS will be responsible for managing the transition to the target of producing at least 100% of our net electricity needs from renewable energy and be a net exporter of renewable electricity by 2022. It will oversee how the state is tracking towards this target, including monitoring increased renewable generation capacity from larger-scale energy projects, and from decentralised generation, including rooftop and community-level solar installations.

RenewTAS must be an independent statutory authority. It will be tasked with increasing competition, attracting investment and driving down costs. RenewTAS will help potential renewable investors by providing data to support project development, securing locations, and helping with approvals and planning. It will be tasked with managing the reverse auction processes, and the payment of feed-in tariffs awarded to successful projects.

This authority will work with existing energy generators, regulators and suppliers and coordinate the technological advances that will be needed for the grid to function as electricity generation continues to decentralise.

It will also act as a central information portal for all scales of renewable energy in Tasmania, opening up our state's skills, manufacturing capacity and natural resources to a renewable hungry world.

4.7 SKILLS FOR THE NEW RENEWABLE INDUSTRY

Skill our workforce to make sure Tasmanians can take up the opportunities of the dramatic expansion in renewable energy generation.

The renewable energy industry in Australia already employs more people than coal and gas-fired power plants. With a substantial increase in renewable energy investment, we need people with specialised expertise in the electronic, construction, communication, environmental and scientific sectors. Rather than bringing people from interstate or overseas, we need to help existing industries upgrade employees in renewable energy skills.

Given our Hydro experience, Tasmania can be a leader in the skills development of the new renewable generation. We need to invest in UTAS and TasTAFE so they can develop the tertiary and vocational skills to meet the demands of this industry.

4.8 PUBLIC OWNERSHIP OF KEY ASSETS

Keep strategic energy assets the property of Tasmanians.

Retaining ownership of our strategic energy businesses is critical to preserving the government's ability to direct policy and set targets that have the prosperity of all Tasmanians in mind. With a dramatic increase in investment in renewable energy generation, there will be an increase in the opportunity for government-owned energy businesses to capture this investment. The profits associated with this will be returned to us all as the shareholders.

4.9 PLANNING FOR EXCESS RENEWABLE POWER

Develop a plan for how Tasmania will manage the generation of excess renewable electricity.

The priority for government must be to increase hydro storages to full capacity, encourage investment in new renewables, aggressively focus on the electrification of transport, and use our renewable electricity to entice technology enterprises to Tasmania (such as green data centres).

Once we increase our renewable generation capacity to producing at least 100% of the electricity we use, regardless of rainfall, we will need to make a decision about whether we continue investing in renewable power generation – and what to do with any “excess” power we make.

In the future, Tasmania may produce enough electricity to meet these goals and exceed the amount of surplus electricity that can be exported by the existing Basslink cable. Tasmania will then need to consider if it will become a substantial net exporter of surplus clean energy to the mainland, to create financial returns for the state and make reductions in Australian carbon emissions.

The case for a second cable is highly complex, and the opportunities and costs need to be fully considered, such as:

- changes to future generation and storage technologies and their impact on peaking demand and the profitability of our power;
- future demand for our renewable energy, on island and interstate;
- climate change impacts on Hydro's long-term average yields; and
- changes to the national regulatory landscape.

The experience of Basslink shows that a second connector should only precede if a solid business case is made that can address these risks and that operates within a context of Tasmania being a net exporter of clean electricity.

A portrait of Rosalie Woodruff, a woman with short, wavy grey hair, smiling. She is wearing a red sleeveless top, a silver necklace with a circular pendant, and hoop earrings. The background is a plain, light grey color.

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The logo for 'The Greens' is a white triangle with a black border, containing the words 'THE GREENS' in green, bold, sans-serif capital letters.

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GREENS**

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