



Rebuilding Australia **LEAN**

Good for our environment
Good for jobs



2020 can only be described as unprecedented. The urgent need to address climate change and a horrifying bushfire season has dovetailed with a worldwide pandemic leaving millions of Australians under-employed or in crisis. And many more Australians are uncertain about their future.

What's more, loss of habitat, degraded water and air quality and overwhelming plastic waste threaten a diminished future.

Although it is an extremely challenging time, there is also great opportunity to fast-track our economy towards net-zero emissions and create a resilient economy to address Australia's long-term needs.



The good news is that Australia, by responding to these issues, has the potential to power a prosperous future for all Australians. We can do this by taking advantage of our natural assets in renewable energy and resources. However this can only happen with active government leadership, smart investment in the economy region by region, and adequate resourcing. We have long been considered the lucky country and with the right government direction and diversification of industries we are well placed to retain this title.

Let's talk about how

We've got some of the most reliable sun and wind resources on the planet and untapped capacity for battery storage and hydrogen technology. We've got the mineral resources to power new technology, the space to install and test it and a workforce just waiting for government leadership.

We know that renewables are already cheaper than fossil fuels and that with better integration of grid scale battery storage, virtual power plants, pumped hydro and more renewable generation we can power an economy with cheaper, greener, and cleaner electricity.

Australia's competitive advantage is our capacity to deploy enough renewables locally to satisfy all our energy needs, while many other countries will have to import low-carbon energy. The global significance of Australia's renewable resources dwarfs the global significance of our fossil fuel resources.

Renewable energy is getting cheaper all the time. Because the sun and wind are free, renewable energy is cheaper to produce per unit than coal-fired power.

We can guarantee supply of those energy sources for when the wind doesn't blow and the sun doesn't shine with batteries and pumped hydro (off-river). More and more Australians are also taking matters into their own hands, and installing solar and/or batteries on their homes.

A low carbon manufacturing super-power

In the 1990s electricity generation and transmission was fully owned by the states. At the time policy makers believed that free market competition through privatisation would lower prices and provide reliable energy. As we have seen, that is not the case.

By privatising our electricity sector we lost the advantage of cheap power and with it one of our key competitive advantages in manufacturing. Many of our manufacturing jobs went overseas, leaving some communities gutted.

In 2019, Ross Garnaut¹ described how responding to climate change has the potential to make Australia a low carbon manufacturing superpower. But only if we do it right. We have squandered our natural advantages in the past.

By tapping into our huge renewable energy resources we can lower the price of energy, lower emissions while taking back our natural advantage in cheap and abundant power.

“The full emergence of Australia as an energy superpower of the low-carbon world economy would encompass large-scale, early-stage processing of Australian iron, aluminium & other minerals”.

Ross Garnaut

However, Australia can't just do what it has done with our natural resources – dig them up and send them off. We can only really capitalize on this huge natural advantage if we build new downstream industries and electrify our existing ones with cheap, clean renewable power. In addition, the pandemic has highlighted the importance for Australia to maintain and even expand its manufacturing capabilities. A universally accepted post-pandemic economic imperative is for Australia to be more self-reliant in terms of essential supplies.

For example

ALUMINIUM

Australia is the world's largest producer of **bauxite**, the raw material for aluminium. In 2017 we produced about one third of the world's supply in WA and far north QLD. We make around \$80/tonne for bauxite.²

Bauxite is then processed to create **aluminium oxide, or alumina** at Bunbury, Collie and Gladstone. We produce about one quarter of the world's alumina. Alumina is worth about \$400/tonne.

We also produce small quantities of the final product – **aluminium**, about 2.5% of the world's supply. Aluminium is worth about \$1600/tonne. Value adding works!

All of Australia's aluminium manufacturers and smelters are under threat, because they guzzle power and the cost of electricity is escalating. The Tomago plant in the Hunter uses 12% of NSW's electricity.

What if Australia managed to turn this around and build an aluminium smelting industry powered by cheaper renewables,

Employment through new Renewables

As Australia moves to a greater reliance on widely dispersed renewable energy generation, we need to upgrade the National Electricity grid. This will generate a wide range of employment opportunities across Australia - and downward pressure on electricity prices.

We can turbocharge the rollout of virtual powerplants and domestic solar, community battery storage and grid scale storage. This will create thousands of jobs in installation and operations, but it doesn't have to stop there. With leadership from a government that supports the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC) we can manufacture key parts these systems in Australia. This will create jobs from mining to processing to manufacturing to installation and operation.

Improved Management of the Environment

Economic activity from industries like agriculture, fisheries, forestry, tourism and manufacturing all depend on a healthy environment. Combating the economic impacts of climate change and maintaining biodiversity in Australia will require better governance including stronger environmental laws, legally binding National standards and an independent Environment Protection Agency to ensure the laws are enforced.

Protecting, restoring and replanting landscapes can save species, combat climate change and create jobs.

Australia has a huge opportunity to build a globally significant carbon sink by adopting sophisticated land management techniques, incorporating indigenous knowledge, replanting native vegetation, and developing new farming practices to store carbon in the soil. This would need to be supported by government policy to stop destructive land clearing.

A 2015 paper by the CSIRO suggests that plant-based land sector abatement has the potential to supply between one third and one half of Australia's total abatement needs from 2031–2050.³

especially as world markets are going to increasingly prefer low carbon products?

If we smelted half Australia's alumina exports, we would require 4 or 5 new aluminium smelters and increase current aluminium production by seven times. We would increase electricity demand nationally by one quarter.⁴ That's a lot of build out of solar and wind to keep people in jobs for the next decade.

Iron Ore

Australia is one of the world's largest producers and exporters of iron ore. With the advantage of low-cost clean energy we can produce "green steel" which will be a product in high demand in coming decades.

There is also opportunity to build on our existing capability in mining, producing resources essential for new technologies such as silicon, ammonia and rare earth metals.

Adaptation & Future-proofing

As we have seen with the 2020 bushfires, Australia needs to be ready to deal with extreme weather events resulting from the heating of our atmosphere. In order to make Australians safe, there is huge opportunity for job creation by adapting our infrastructure and programmes to cope with the effects of climate change whether it be retrofitting buildings for energy efficiency, upgrading infrastructure, recycling and reusing our waste or expanding our emergency services. It is vital that governments prepare our society and secure our future.

Hands on Government

None of this is going to happen by relying solely on the free market. We need the government to be active in making it happen.

The state is often the original investor in new technology and large-scale infrastructure. This fact is often forgotten in current narratives, where the heroes are the private sector. The private sector has an important role, but government investment, planning and regulation are essential in setting economies on new paths.

The additional benefit of greater government action is that we can better ensure innovation and job creation happens in socially positive ways such as locating new industries in the regions that need investment.

The Government also needs to set the right policy framework and give market signals to encourage private and superannuation fund investment into clean energy, manufacturing, climate adaptation and land management.

The short version of this good news story:

Labor can embrace the opportunities of being a Renewable Energy Superpower by investing in properly planning the energy transition. Plentiful cheap renewable power can resurrect high value manufacturing. We can develop and invest properly in new regional industries and jobs, in consultation with communities. And we can rapidly work with our communities to adapt our infrastructure for a clean energy future to keep Australians safe.

Prime Ministers Curtin and Chifley recognised during and after WWII how critical it was for the Labor government to plan ahead for the recovery. Labor now has the opportunity to future proof Australia economically, socially and environmentally with action on climate change at the heart of this vision. Labor can bring civil society, unions, business and different levels of government together to embrace its role as a renewables superpower in a low carbon future.

SOURCES:

- 1 Ross Garnaut is the eminent economist who conducted the 2008 & 2011 Climate Reviews for the Rudd/Gillard Government. His 2020 book is called Super-Power: Australia's low carbon opportunity
- 2 These prices for bauxite, alumina and aluminium are very rough averages based on the last year or two of prices.
- 3 CSIRO, 2015, Potential for Australian Land-Sector Carbon Sequestration and Implications for Land use, Food, Water and Biodiversity
- 4 Figures from Ross Garnaut, 2020, Super-power: Australia's low carbon opportunity

Let the Federal MP's and Senators know you think that...

Climate action is core Labor business

Good for our environment and Good for jobs

LEAN has shown that when the Party membership raises its voice, the Labor Party listens. Last time we worked together we ensured the Labor party adopted ambitious climate change policy. It is time for us to once again back the Federal Labor party, supporting our leaders to adopt ambitious, compassionate policy to ensure Australia responds to climate change creating jobs and economic opportunity.

Add your voice by signing up at www.lean.net.au/core_business

Labor Member Statement or Branch Motion

I/we call on the Federal Labor Party to adopt a plan that cares for the environment, takes real action on climate change and creates secure jobs. We want Australia to be a Renewable Energy Superpower and government action to make it so.

I/we believe climate action is core Labor business. Only Labor can lead Australia through this.

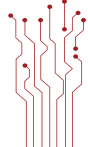
We call on Labor to:



1. Create a pathway to net-zero emissions by 2050 including interim targets to measure progress and drive innovation. We need strong and sustainably-funded institutions to support the pathway.



2. Commit to Australia becoming a Renewable Energy Superpower, rebuilding our manufacturing industries and restoring their competitive advantage.



3. Intervene in the economy to fast track the creation of the Renewable Energy Superpower through public investment and public ownership of key sections of the economy. And delivery of new skills and training required to deliver it.



4. Protect our natural environment with stronger environment laws & an Environment Protection Authority. We must end land clearing and create a local land carbon industry, providing opportunity in regional Australia.



5. Invest to combat increased severe weather, protecting communities from a changing climate. This includes investment in local firefighters, rangers and emergency services.



6. Invest in sustainable infrastructure including electrifying transport and retrofitting the built environment.



7. Support our regional communities to develop localised and region-specific plans to prosper in a low carbon future. Make sure new jobs and new industries are secure, well-paid and include ongoing training and support union jobs.