



BRIEF: CLEAN ENERGY TRANSFORMATION

March 2016

This brief details a suite of key policy ideas targeted at facilitating the transition of Australia's energy market towards the accelerated uptake of renewable energy. The brief is broken down into a series of different components of this transition. However, many of the policies will be reinforcing and therefore should be considered as a package rather than standalone measures.

Australia's clean energy transformation opportunity

The biggest opportunity for Australia to cut carbon pollution is to transition away from Australia's heavy reliance on dirty fossil fuels like coal to a build a modern 21st century clean energy system powered by 100% renewable energy like solar and wind.

The opportunity for government leadership and policy innovation is clear.

This election, it is essential that parties deliver a clear long-term plan and policy clarity across the energy sector that will give guidance to business, stimulate investors, create sustainable jobs, unite and enhance the efforts of other government jurisdictions, and ensure a just transition for Australian workers and communities who will face an uncertain future and deliver the pollution cuts for a cleaner, better future.

The Plan:

At the 2016 federal election, parties should commit to develop a Clean Energy Transformation Plan, for implementation starting in the second half of 2017.

The Clean Energy Transformation Plan should include six core pillars.

1. A phased closure plan for Australia's dirty coal-burning power stations
2. Support for workers and communities to be a part of the clean energy future
3. A 100 per cent clean renewable energy target and strategy
4. A national energy efficiency strategy
5. A national electric vehicle strategy
6. An end to polluter handouts

1. Phased closure plan for Australia's dirty coal-burning power stations

Australia's energy fleet is ageing, and among some of the highest polluting in the world. To create space for clean, modern renewable energy Australia must introduce a phased closure plan for Australia's dirty coal-burning power stations, starting with the dirtiest and oldest power stations.



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Numerous policy options exist for government to drive a successful, planned and well-managed transition of our electricity market.

These include;

- a) **A market mechanism for regulated closure** of highly emissions intensive power stations, such as that proposed by Jotzo and Mazouz (2015)¹.
- b) **Introduction of an emissions intensity standard** for power stations that tightens over time, ensuring the dirtiest coal-burning power stations are closed first.
- c) **Introduction of an aged-based regulation** that tightens over time and ensures the oldest (and therefore largely least-efficient) power stations are closed first.
- d) Other similar proposals or combinations of the above.

Policy proposals including the Jotzo and Mazouz (2015)¹ model are important 'first mover' options insofar as they will likely perform best in incentivising the shutting down of the initial one or two generators. However, supporting regulation will be needed to facilitate the closure of the many other coal-fired generators. Regulatory measures could include tightening emissions standards or mandated closure ages. Working in tandem, these policy instruments can ensure the most competitive bidding process in the initial offer to shut-down, while also signalling to other operators who stay in the market that they will eventually be phased-out over a certain time period. Such policy proposals could also be used to raise funds for worker and community transition plans.

Parties should commit to develop a plan for the phased closure of Australia's dirty power stations, which includes a target for retirement by 2020², and full retirement of all other coal-burning power stations before 2035.

2. Support workers and communities to be part of the clean energy future

To complement the phased closure of coal-fired generators a fully funded electricity sector just transition package will be required. A genuine just transition for impacted communities will require coordination and cooperation across local, state and federal government, as well as significant interaction and consultation with relevant unions, communities, local business, and the generators themselves. For this reason, the package should consist of:

- a. A body to oversee coordination of just transition funding, training, community support programs and industry development packages.
- b. Explicit commitments of significant funding for community transitions which are leveraged from both Federal and State sources. Funding can also be derived through

¹ Jotzo, F and Mazouz, S. Nov 2015. *Brown coal exit: a market mechanism for regulated closure of highly emissions intensive power stations*, available at https://ccep.crawford.anu.edu.au/sites/default/files/publication/ccep_crawford_anu_edu_au/2015-11/ccep1510_0.pdf

² ACF have calculated that government should adopt a target to retire a further 4000MW of coal generation by 2020. In 2014, the Australian Energy Market Operator (AEMO) identified 9,000MWs of oversupply in the energy market. Approximately 4,000–5,000MW of capacity has already closed, committed to close or mothballed. This 4,000MW closure target would see the remainder of this oversupply closed by 2020.



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innovative sources (such as the Jotzo and Mazouz model). Without explicit up-front funding, there is a risk that communities and other relevant bodies fail to engage in the early planning and consultation around transition that will be necessary to ensure a positive outcome.

- c. Rehabilitation plans of disused mine and power station sites. Parties should require coal mining companies to provide adequate financial securities to comprehensively rehabilitate current and former mine and power station sites.

Without a government-managed plan for the phased closure of Australia's dirty coal-burning power stations, Australian workers and communities face an uncertain and challenging future.

The recent experience at Port Augusta in South Australia and Anglesea in Victoria highlight the impact that sudden, market-driven closures, have on communities and workers. In both cases, communities and workers missed out on the support, regional investment and employment alternatives that would be provided by a well-planned phased closure process with a well-funded just transitions package.

3. 100 per cent clean renewable energy

A long-term target for renewable energy is fundamental to ensuring investor certainty and driving confidence. A target for clean renewables to power 100 per cent of Australia's electricity by 2035, and 100 per cent of all Australia's energy (electricity, transport and industrial processes) by 2050 is achievable and affordable.

Global renewable energy investment surged 19 per cent in 2014, to reach \$318bn. However at the same time, uncertainty about government support for renewable energy in Australia meant further declines in the industry here, with employment in renewable energy in Australia declining three per cent from 2013-14 to 2014-15.

A suite of policies from the federal government will be required to:

- demonstrate government commitment to a thriving clean energy industry;
- facilitate investment in the under-functioning energy market;
- support emerging technologies;
- trial new energy market and grid opportunities; and
- support an expanded and growing electricity sector with 21st century regulation and grid infrastructure and access rules.

Parties should commit to the following policies to ensure that Australia is able to harvest the opportunities from the best and most abundant natural resources we have – clean energy.

a) *Commit to an expanded and flexible RET of 100% out to 2035*

An expanded RET will continue to play an important role supporting a suite of technologies, by providing a long-term goal that signals to investors the pathway of renewable energy growth.



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b) Introduce national renewable energy capacity auctions within the expanded RET

To ensure there is a secure mix of different technologies to meet Australia's energy needs, additional measures may be needed to complement the least cost approach of the RET. Auctions can be used to support the build of specific technologies in specific geographies to ensure the integrity of the grid.

The ACT's wind and solar reverse auctions will be used to deliver almost a third of Canberra's electricity supply from renewable sources by 2017. This mechanism has helped deliver new renewable energy capacity at an average of \$89 per MW hour.

To contribute to the 100 per cent RET target, RECs equivalent to the amount of renewable energy created via the auction would be retired from the RET.

c) Maintain and strengthen ARENA and the CEFC

ARENA and the CEFC have played an essential role in facilitating the development and commercialisation of renewable energy projects in Australia.

The CEFC mandate could be expanded to be more innovative and support a range of other projects like community renewables, roll out of electric vehicle (EV) infrastructure and other technologies.

d) Kickstart community power

Resource community efforts to build clean renewable energy in towns and suburbs across Australia. While community power projects would be eligible for RECs, upfront capital costs are usually the biggest barrier. Government could help drive the growth in community renewables by establishing a community project registry, provide free project advice, information about finance options including CEFC support, green bonds or government provided tax incentives.

e) Household and business uptake

According to the Electricity Supply Association of Australia, Australia has the highest rate of household solar panel installation in the world, with 15 per cent of Australian homes having solar on their roofs. Yet the space for growth in this market and in the SME market remains significant, delivering households and businesses savings and job growth opportunities in towns and suburbs across the country.

- Set a target for the number of solar PV rooftops to drive greater investment certainty
- Continue the Small Scale RET Scheme (SRES)
- Install solar PV on all new and existing public housing stock

f) Build up Batteries

- Establish a mechanism to reward distributed generators (households and businesses) for the full value of distributed electricity exported to the grid. This would include smart integration of distributed generation, storage and



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centralised generation as well as smart network connected appliances and electric vehicles³.

- Ensure the development of minimum standards for new battery storage technologies.
- Introduce standards to require new government buildings to include minimum requirements for battery storage capacity.
- Support consumer awareness campaigns which guide consumers on the available technologies, appropriate installation and ongoing operation of battery systems⁴.

g) Reboot the market, gear-up the grid

The current design of the National Electricity Market (NEM) is ill-equipped to facilitate the deployment or integration of new technologies such as large-scale or distributed renewables, or to support energy efficiency. The current operation of the NEM is also acting as a barrier to the adoption of modern, clean technology sources. The legislated objectives of the NEM require review and reform to properly facilitate the energy transition needed in Australia.

Parties should commit to a review by 2017 to align current rules, regulations, laws, institutions (AEMO, AEMC, COAG Energy Council) and market structures with a new set of objectives around a clean energy transformation. This would include:

- Market design: Demand management incentives, storage, role of networks in the transition to a clean energy system, grid access guarantees, local energy trading
- Low-income friendly tariffs and pricing.

4. Capitalising on Energy Efficiency opportunities

Energy efficiency measures offer some of the cheapest forms of carbon abatement, and can in many cases be cost negative. However, information, regulatory and other barriers often get in the way of energy efficiency activities. Priority policy interventions to take advantage of the wealth of opportunities should include:

a) Set a target to at least double Australia's Energy Productivity by 2030.

An energy productivity target will allow the government to drive energy efficiency across the residential, commercial, industrial and transport sectors and ensure regular tightening of standards and efficiency upgrades.

Such a target would also help guide other government and investor decision making processes, such as regarding new infrastructure priorities.

³ Clean Energy Council, 2016. *Accelerating the uptake of Battery Storage*.

<https://www.cleanenergycouncil.org.au/news/2016/March/battery-storage-blueprint-accelerating-uptake.html>

⁴ Ibid.



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b) Improve minimum standards for appliances over the next 5 years

The Greenhouse and Energy Minimum Standards (GEMS) is one of the biggest drivers of energy efficiency in Australia, saving the average consumer about \$300 per year⁵ and has an estimated cost-benefit ratio of between 1.7 and 5.2 for the period 2014-2020⁶.

However delays in the introduction of new standards are having a significant impact.

Parties should commit to:

- **Introduce a streamlined approval process** for new or amended standards, with the COAG Energy Council endorsing an overall business case for standards and the Office of Best Practice Regulation (OBPR) or another body simply reviewing a pre-determined set of criteria for individual proposals for new standards.
- **Keep standards up to date and harmonise them with leading economies to lower costs for industry, via a mandate** on GEMS administrators and OPBR.
- **Expand the number of products that are covered** by standards and labels
- **Properly resource** the development and enforcement of GEMS.

c) Improve performance standards for buildings

- **Set a pathway to raise minimum energy efficiency standards** in the Building Code of Australia (BCA) for residential and commercial buildings in 2019 and beyond.
- **Commit to improve compliance** and enforcement of the BCA.
- **Improve homeowners' awareness** of the value of more efficient buildings using targeted information campaigns and mandatory disclosure.

d) Mandatory disclosure at point of sale or lease by 2018

- A requirement to disclose the energy efficiency of homes at the point of sale or lease should be introduced, with a voluntary scheme introduced in late 2016 that becomes mandatory in 2018.
- Mandatory minimum standards for rental properties should also be introduced, with the stated intention of increasing energy efficiency standards over time.

e) Energy Efficient government buildings

A comprehensive program to reduce energy waste in government buildings and operations should be introduced by the end of 2016. This could be based upon the protocol developed by the Government Property Group and the Energy Efficiency Council.

f) Harmonise Energy Efficiency schemes across the country, and extend to all states and territories.

NSW, Victoria, ACT and South Australia has all set up 'retailer energy efficiency obligations' that act similarly. Existing schemes should be harmonised, strengthened and expanded across all jurisdictions.

⁵ Pears, Alan. April 2014. *Energy-smart appliances cut Australian power bills by billions*, RMIT University, p.1.

⁶ DataBuild, 2015. *Greenhouse and Energy Minimum Standards (GEMS) review*



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g) Business energy management plan

- Reintroduce a revised Energy Efficiency Opportunities program for the largest energy users. The former EEO program was highly effective, and further opportunity exists for significant energy savings.
- Introduce an SME energy efficiency program to drive efficiency in specific sectors. The program would have a 12 month design period, and need to run for a minimum of three years to ensure deep engagement.

5. Driving Electric Vehicle Uptake

Transport is responsible for 17 per cent of Australia's carbon pollution, second only to electricity generation.

Globally the transport sector is set to fundamentally change forever with the accelerated uptake of electric vehicles (EVs) along with the integration of 'smart' network-connected technologies in distributed generation, battery storage, and appliances. How Australia responds to this opportunity will depend on government, industry and consumer responses to both EVs and advances in, and roll out of, battery storage technologies. Australia has to date been slow to respond on developing policies in the transport sector and is the only advanced economy without mandatory standards for vehicle fuel efficiency or greenhouse emissions. We recommend a strong coordinated approach across government jurisdictions to drive an accelerated roll out of EVs including the following:

- a) Set ambitious vehicle emissions standards to start in 2017** that bring Australia into line with current European Union standards by 2020, and a further phased approach to reach the EU's 2021 standard by 2023.
- b) In 2017, set a target for 50 per cent of all new car sales in Australia to be EVs by 2026.**
- c) In 2017, introduce an Australian Electric Vehicle Strategy** that should include:
 - tax rebates and/or other preferential tax treatments that result in low cost or at a minimum comparative price equalisation or for EVs compared to similar conventional vehicles;
 - mechanisms for fleet purchasers to bulk purchase EV's to increase government and corporate uptake;
 - A plan to coordinate efforts with State Governments, Councils, and the private sector to roll out infrastructure charge points in high traffic areas that are accessible to all, such as public transport park and rides, car parks, shopping centres, playgrounds and sporting venues.
 - low cost financial support to roll out infrastructure such as a loan pay back scheme for SMEs, extend the mandate of Clean Energy Finance Corporation and use of Green bonds.
 - A plan to support electric vehicle charges in homes, including regulating connection fees, time a day rates, and requiring landlords to provide permission to a leaser to be able to install plug-in or electric vehicle chargers (unless special situation) where the leaser must pay for it and its maintenance.



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- acceleration of work being undertaken by Standards Australia to set standards to harmonise EVs plugs and billing methods.
- resource a promotion and education campaign to build confidence in the EV market.

6. End polluter handouts

Governments continue to fund pollution through direct handouts, subsidies and tax breaks for the exploration, production and consumption of polluting fossil fuels.

Removing fossil fuel subsidies would save billions of dollars and reduce the burden of increasing pollution on all Australians.

a) *Reform the Fuel Tax Credit Scheme, with a cap of \$20,000 per claimant*
Savings = \$15.4bn over the forward estimates

In the 2015-16 federal budget, the notorious Fuel Tax Credits Scheme cost the taxpayer more than \$6bn.

About 40 per cent of the value of the credit scheme goes to the mining industry. For some large companies this is worth tens of millions of dollars.

Parties should commit to cap the Fuel Tax Credit Scheme at \$20,000 per claimant, so that those businesses making small claims would remain unaffected, but the perverse incentive to maintain inefficient practices is removed for larger claimants. The cap should be phased in over a few years, starting at a cap of \$80,000 in 2017-18, and stepping down by \$20,000 a year until the final \$20,000 cap is reached⁷.

This would save an estimated \$15.4bn over the forward estimates.

b) *Abolish aviation fuel excise concessions*
Savings = \$6bn over the forward estimates.

Aviation gasoline and aviation turbine fuel are subject to a lower rate of excise than other fuels. This represents a subsidy for the use of aviation gasoline and fuel vis-à-vis other forms of transport and reduces potential revenue from fuel excise.

Immediate abolition of the concession in the 2016-17 federal budget would save over \$6bn over the forward estimates⁸.

⁷ Australian Conservation Foundation, Jan 2016. *Submission to the Department of Treasury: Priorities for the Federal Budget 2016-17*. Available at <https://www.acfonline.org.au/sites/default/files/resources/ACF%202016-17%20Budget%20Submission.pdf>

⁸ Ibid.



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**c) Remove statutory effective life caps/accelerated depreciation
Savings = \$1.65bn in 2018-19 alone.**

The Review of Business Taxation chaired by Mr John Ralph in 1999 ('Ralph Review') recommended changes to business taxation in Australia including the elimination of accelerated depreciation and a reduction in the company tax rate from 36% to 30%.

In accordance with the recommendations of the Ralph Review, the company tax rate was reduced and accelerated depreciation arrangements were removed. However accelerated depreciation ('statutory effective life caps') were reintroduced by Parliament in 2002 at the behest of the oil and gas, petroleum, agricultural and transport industries.

Statutory effective life caps should be phased out in 2018-19. This would promote economic growth by allowing resources to flow to the most economically efficient businesses and sectors of the economy, be equitable and reduce pollution.

This would save the federal budget \$1.65bn in 2018-19 alone.

For more information:

The ACF community speaks out for a healthy environment, Australia's special places, climate action and for lasting social and economic change.

www.acfonline.org.au

WWF Australia – Building a future in which people and nature thrive.

www.wwf.org.au