

Chapter 5

Committee view

5.1 In the few short months since the publication of the committee's interim report, public debate concerning Australia's energy policy and the transition away from a fossil fuel-dominated system of electricity production has reached fever pitch. Significant blackout events in South Australia and New South Wales over the summer months have focused much attention on the roles of the various components of our energy system. Ad-hoc policy pronouncements from both federal and state governments in early 2017 have only added to the confusion and regulatory uncertainty, without moving the country any closer to a cohesive national plan for energy transition.

5.2 Globally, it is clear that the era of coal fired power generation is drawing to a close. Recent policy announcements from India and China in particular show that this is occurring more rapidly than could have been predicted even a few years ago. Cost reductions in renewable technologies, combined with the swift advancement of energy storage technologies, mean there is now no need for additional coal fired generation capacity to be built worldwide.

5.3 Strong leadership is required from the Australian Government to forge a comprehensive national policy response to deal with this transition—leadership which has been sorely lacking in recent times.

Reality of the transition away from coal fired power generation

5.4 The age and declining economic potential of Australia's fleet of coal fired power generators, as well as Australia's commitment to reducing its carbon emissions footprint in line with the Paris Agreement, means it is inevitable that many of these coal fired generators will cease operations in the medium term. This will be the case even in the absence of any further policy measures from government to encourage closure of these generators and further uptake of renewable generation.

5.5 The question is not if coal fired power stations will close, but how quickly and orderly these closures will occur, and what supporting policies, if any, will be in place to help manage the process.

5.6 Strong evidence to the committee suggested that for Australia to make emission reductions consistent with meeting the Paris goals and carbon budget the equivalent of one Hazelwood sized coal-fired power station a year needs to close.

5.7 It is imperative that this reality is acknowledged by government, industry and the broader community, so that this transition can be adequately planned for and implemented at the lowest cost to consumers, taxpayers, workers and communities.

Need for an orderly closure process to encourage price stability and investment certainty

5.8 Some stakeholders have put forward the view that no further policy consideration or intervention is necessary to facilitate an orderly exit of coal fired

power generators from the market. This view was vigorously refuted by other submitters and witnesses, who argued that leaving retirement decisions solely to plant operators creates inefficient outcomes, causes greater price volatility and exacerbates the instability and costs for affected workers and communities.

5.9 The experience of announced coal fired power station closures in Australia over the last four years shows that companies, on average, have given less than four months' notice to affected workers and communities of upcoming plant closures.¹ From a national, long-term planning perspective, this is clearly unacceptable. It highlights the need for an orderly closure process to be facilitated by government on a nation-wide basis, with closures announced ahead of time to give certainty to investors, take into account impacts on the broader electricity system, and allow for a just transition for affected workers and communities.

5.10 The committee has heard that uncertainty around the government's future energy and climate policies are a key factor undermining the ability of market participants to make informed long-term investment decisions. A coordinated, national approach to energy decarbonisation must be pursued, with collaboration between all three levels of government, industry and workers being key to ensuring that regional issues around plant closures are given due prominence.

5.11 The need for a national approach means that it is imperative for the COAG Energy Council to agree on a mechanism for the orderly retirement of coal fired power stations. This should include amending the National Electricity Objectives to include a pollution reduction objective in addition to the three existing objectives of reliability, safety and security.

5.12 The committee considers that this transition to a low-carbon electricity sector will also require coordination by a standalone statutory authority that can oversee the implementation of mechanisms to close coal fired generators and measures to support workers and communities, as argued for by various stakeholders to the inquiry.

5.13 The committee has taken considerable evidence since its interim report, through the receipt of additional written submissions and two further public hearings.

5.14 This evidence has only strengthened the committee's views articulated in its interim report, namely: that the transition away from coal fired power generation towards renewable sources of generation is inevitable; that this transition is already occurring; and that urgent and decisive action from government at all levels is required to facilitate this transition in an orderly and efficient fashion.

5.15 The committee made four recommendations in its interim report:

Recommendation 1

5.16 The committee recommends that the Australian Government adopt a comprehensive energy transition plan, including reform of the National Electricity Market rules.

1 Environment Victoria, Appendix to *Submission 16* tabled at a public hearing on 17 November 2016.

Recommendation 2

5.17 The committee recommends that the Australian Government, in consultation with industry, community, union and other stakeholders, develop a mechanism for the orderly retirement of coal fired power stations to be presented to the COAG Energy Council.

Recommendation 3

5.18 The committee recommends that the Australian Government, through representation on the COAG Energy Council, put in place a pollution reduction objective consistent with Australia's obligations under the Paris Agreement in the National Electricity Objectives.

Recommendation 4

5.19 The committee recommends that the Australian Government establish an energy transition authority with sufficient powers and resources to plan and coordinate the transition in the energy sector, including a Just Transition for workers and communities.

5.20 The committee reiterates these recommendations and urges the government to consider and respond to these recommendations as a matter of urgency.

Additional issues and recommendations

5.21 In addition to reiterating its initial recommendations, several further issues were highlighted in evidence provided to the committee since its interim report which are also worthy of comment and recommendation.

Health and environmental impacts of coal fired power stations

5.22 The committee heard further evidence during its recent public hearings about the continued negative impact coal fired power stations have on the health of those who reside in their vicinity and the environment surrounding them. Despite the longstanding operations of coal fired generators in Australia, these impacts have not been adequately studied or accounted for in making decisions about plant longevity and retirement.

5.23 It is imperative that these impacts be part of the conversation about when assets should be retired; in the committee's view, these impacts strengthen the case for orderly closure of coal fired power stations as soon as possible. In the interim it is important the proper health assessments be conducted and enforcement of air standards be undertaken.

Recommendation 5

5.24 The committee recommends:

- **That the Australian Government commission a comprehensive and independent assessment of the health impacts of coal fired power stations.**
- **That the Australian Government develop a load-based licencing arrangement for coal fired power stations for adoption at COAG based on the New South Wales Load-Based Licencing scheme, with fees that**

reflect the health impacts and other externalities of power station emissions.

- **That the Australian Government take additional measures to ensure compliance with the standards set in the National Environmental Protection (Air Quality) Measure and - in the case of sulphur dioxide and nitrogen dioxide - international best practice standards. In regions where these standards are exceeded such as the Hunter and Latrobe Valleys, coal fired power stations must be compelled to reduce emissions to levels below the NEPM standards.**
- **That the Australian Government ensure a more rigorous assessment of power station emissions through an independent audit of reports provided through the National Pollutant Inventory.**

Rehabilitation of retired power stations

5.25 As coal fired power stations and mines are retired there is a need to properly rehabilitate the sites to ensure a positive environmental and social legacy. Without adequate rehabilitation bonds or provisioning for the costs of rehabilitation there is a real risk that taxpayers will end up bearing the burden of these rehabilitation costs, or alternatively that rehabilitation will not be performed to an adequate standard.

5.26 The owners of the Hazelwood power station recently increased their rehabilitation provision to \$742 million for the power station and mine which gives an indication of the potential cost of mine rehabilitation.

Recommendation 6

5.27 The committee recommends that the Commonwealth and state energy ministers should undertake a national audit of likely rehabilitation costs for existing coal mines and power stations and assess these costs against the current provisions or bond arrangements.

5.28 The committee recommends that the Commonwealth and state energy ministers should also work to develop a common approach to setting rehabilitation bonds to ensure that rehabilitation costs are properly provisioned for.

Solutions to enhance reliability and stability of power generation and delivery

5.29 In the wake of recent blackout events, the need to provide solutions that deliver reliability and stability in the electricity system while delivering low-emission power generation is clearer than ever.

5.30 The committee heard evidence that uncertainty about the timeline for the retirement of coal fired power stations and the uncertainty about climate and energy policy has led to significant under investment in new energy generation.

5.31 As a result the failure of the Australian Government to put in place policies to support new energy generation is creating significant pressure and instability on the NEM.

5.32 Investments in large-scale battery storage by the South Australian and Victorian governments are to be commended, as are funding initiatives from ARENA directed towards the development of both grid-scale and household battery storage solutions. Initiatives involving pumped hydro storage and other grid-stabilising technologies should also be explored, although these may require longer timeframes to implement and are thus less capable of alleviating the immediate problems facing the electricity system.

5.33 The committee heard evidence that household battery storage technologies will achieve widespread take-up among consumers within the next five years, if not sooner. Governments at every level should be doing all they can to encourage this development and to ensure that the regulatory framework facilitates innovation in this space, for example through encouraging inventive technical solutions such as household peer-to-peer trading of electricity. Applications such as this have the potential to encourage decentralised generation and distribution of electricity, while enhancing the stability and integrity of the grid itself.

Recommendation 7

5.34 The committee recommends that the Australian Government continue and expand the Renewable Energy Target beyond 2020 and consider adopting renewable energy reverse auctions such as adopted by the ACT to bring more new generation into the national electricity market.

5.35 The committee also recommends that the Australian Government support the continuing deployment grid level battery storage and of household solar and battery storage technologies, including making the necessary regulatory changes, such as aligning the settlement and bidding time periods in the National Electricity Market, to encourage the utilisation of products that promote decentralisation of electricity production while enhancing the stability of the grid.

'Clean coal' technologies

5.36 Despite the best efforts of the coal lobby and the current Australian Government, it has become increasingly apparent that 'clean coal' technologies are too expensive and unreliable to be competitive with renewable energy sources in the short term, let alone over the longer asset lifespans of coal fired generators.

5.37 Arguments that 'clean coal' can be a viable part of Australia's future energy mix are an irresponsible smokescreen, designed to prop up an industry in structural decline and stymie the uptake of renewable, affordable and reliable energy solutions.

5.38 The energy industry itself, as well as the financial sector, has made it clear in recent months that investments in new coal fired power generation in Australia are not commercially viable, regardless of whether these new plants are slightly more efficient than the existing fleet of generators. Carbon capture and storage technologies are also still not commercially viable, despite many years of investment by both governments and industry into their development.

5.39 The only way new coal fired power stations could be built in Australia is if they are heavily funded or subsidised by government. This would constitute an

outrageous waste of taxpayer money, and the committee calls on the Australian Government to commit to not funding any such projects.

Recommendation 8

5.40 The committee recommends that the Australian Government commit to not provide any direct funding, subsidies or other support for the construction of new coal fired power stations in Australia.

Finkel review

5.41 The committee is concerned that recent policy announcements and statements by the Australian Government have come in advance of the final report of the Independent Review into the Future of the NEM currently being conducted by the Chief Scientist, Dr Alan Finkel AO. These announcements by the Australian Government have effectively prejudged legitimate policy options, such as the introduction of an Emissions Intensity Scheme for the electricity sector, before the independent review has completed its work.

5.42 It is imperative that the Australian Government consider all options presented by the final report of the Finkel Review fairly and transparently, so that the most efficient and least-cost pathway to achieving a stable, low-emissions electricity system in Australia can be realised.

Recommendation 9

5.43 The committee recommends that the Australian Government reverse its ideological opposition to the introduction of a scheme for managing the transition in the electricity sector such as an Emissions Intensity Scheme or the setting of pollution intensity standards and commit to considering fairly all policy options presented by the forthcoming final report of the Finkel Review.

Senator Peter Whish-Wilson

Chair