



Australian Energy Market Commission

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Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

By email: ec.sen@aph.gov.au

Dear Committee Secretary

Submission to the inquiry into the retirement of coal fired power stations.

The Australian Energy Market Commission (AEMC) welcomes the opportunity to make a submission to the Senate Environment and Communications Committee inquiry into the retirement of coal fired power stations (the Inquiry).

The AEMC provides advice on energy matters to the Council of Australian Governments (COAG) Energy Council. It regularly monitors and reports on a range of matters including the level of competition in energy retail markets, future price trends, and energy market performance. In addition, the AEMC conducts reviews on matters relating to national energy markets, as directed by the COAG Energy Council or on its own initiative. The AEMC is currently conducting a review on system security and providing advice on the integration of emissions reduction policy in the National Electricity Market (NEM). Finally, the AEMC makes and amends the rules that govern the electricity and elements of the gas market in response to a request from any person or organisation other than the AEMC itself. Rule change requests are typically submitted by individuals, industry or governments.

In performing its functions, the AEMC is obliged to have regard to the National Energy Objective (NEO)¹ that is, to promote efficient investment, operation and use of energy systems, with regard to a range of factors, in the long-term interests of customers. Accordingly, any policies seeking to reduce emissions should also be designed with a view to achieving secure, reliable, affordable supply of energy at the lowest possible price for consumers over the long term. Without an integrated approach, neither the NEO nor the Commonwealth Government's emissions reduction objectives² are likely to be achieved.

¹ The NEO is to promote "efficient investment, and efficient operation and use of, energy services for the long-term interests of consumers of energy with respect to – price, quality, safety, reliability and security of supply; and the reliability, safety and security of the national energy systems"

² 26-28 per cent emissions reduction by 2030 compared to 2005 levels.

Scope of this submission

The Inquiry's terms of reference (ToR) highlight a number of issues relating to the incentives for, and the consequences of, the retirement of coal fired power stations. Some of these issues fall within the scope of the AEMC's responsibilities and current areas of review and investigation, while others raise broader questions of public policy.

This submission draws upon AEMC advice and submissions provided on previous occasions in relation to the Government's Emissions Reduction Fund Safeguard's Mechanism³ and the barriers to efficient exit decisions by generators⁴. It focuses on those areas within the ToR that relate most directly to our role and work programme – particularly, part (c) and (e).

The TOR refers to both the retirement and the closure of coal power stations; however these are not necessarily "all or nothing" decisions. There are a number of different ways in which generators may reduce their participation in the market. Generation plant may operate periodically or be removed indefinitely, with the ability to restart generation with some notice period, if market conditions change. Longer term, plants may be decommissioned entirely and sites rehabilitated.

Stages of generator exit

Minimum reduced operation						Full exit
Dispatch at the minimum stable generation	Part-day operation	Seasonal shutdown	Mothballing of individual units	Mothballing of entire plant	Power station decommissioning	Full site remediation for sensitive use

For the purposes of this submission, the term 'exit' will be used to describe any of the ways a generator may withdraw capacity from the market including on a partial, temporary, indefinite or permanent basis. The term 'retirement' will be used to describe permanent exit from the market.

Policy mechanisms to encourage the retirement of coal-fired power stations from the National Electricity Market – part (c) of ToR

The AEMC recognises that governments have a range of broader policy objectives that extend beyond the pursuit of the NEO. These objectives include emissions reductions, the promotion of renewable generation investment, job-creation and the mitigation of adverse community impacts due to economic restructuring.

To the extent possible, government policies directed towards these other objectives should be designed in a way that has regard to the likely impact of those policies on the achievement of secure, reliable, affordable supply of energy at the lowest possible price for consumers. The successful integration of energy and emission reduction policies should be guided by the following principles:

1. The primary policy objective should be clear;
2. The mechanism should be able to meet its policy objective whatever the future may bring in terms of demand, relative input prices and technological changes;
3. The mechanism should be compatible with the pricing mechanisms used to trade electricity; and
4. The mechanism should be consistent with the risk allocation and risk management tools that underpin the operation of the market.

³ <http://aemc.gov.au/getattachment/5f6f00b4-709e-47c7-8daa-5bcdf31cfacd/Submission-to-Emissions-Reduction-Fund-Safeguard-M.aspx>

⁴ <http://www.aemc.gov.au/Markets-Reviews-Advice/Barriers-to-Generators-Exiting-the-Market/Advice-provided-to-the-COAG-Energy-Council/AEMC-Documents/AEMC-advice-to-SCER.aspx>

For example, in response to the government's April 2015 consultation paper on the Emissions Reduction Fund Safeguards Mechanism, the AEMC proposed a policy mechanism to achieve sector-specific emission outcomes, based on an emissions intensity target for the sector⁵. The target would be achieved by converting the absolute tonnes baseline into an emissions intensity figure. This mechanism would provide generators with the flexibility to meet that target at the lowest possible long term cost for consumers.

This is because the approach preserves the market mechanism that facilitates the trading of electricity and other services as well as the appropriate allocation of risk in energy markets. It does this while providing the long term regulatory certainty necessary for investors in the sector. Importantly, the risk is borne by generators, not customers, thus customers do not pay more than necessary to meet the desired emissions reduction outcome, or bear the risks of poor investment decisions.

Emissions reduction policies that are designed without regard to the likely impact of those policies on energy markets run the risk of unintended consequences for the market and/or consumers.

For example, a policy designed specifically to encourage one coal-fired power station to exit the market may paradoxically encourage other such plant to remain in operation for longer than they otherwise would on the basis of anticipated future revenue streams. This would embed a barrier to exit in the market. Furthermore, it may not be the most efficient means of securing emissions reductions to meet Australia's international obligations, or the most effective means of increasing investment in alternative generation sources. This is a matter that the AEMC is currently investigating and a report will be delivered to COAG Energy Ministers at the end of 2016.

Retirement of coal-fired generators may also have system security impacts that should be carefully considered. The AEMC's system security review is considering these and other related issues⁶.

The appropriate role for the Federal Government in respect of the above [the retirement of coal fired power stations] – part (e) of ToR

The decision of a generator to retire should be a commercial decision..

Investment and divestment decisions are based on a range of factors. A decision to retire a generator can take a number of years and requires intimate knowledge of the commercial and operating structures of that generator as well as clear expectations about future revenues and costs. Generators are best placed to manage the risk of their own investment or divestment decisions. The added benefit of this approach is that the risks of poor investment decisions are borne by generators rather than taxpayers or electricity consumers (as would be the case if a government were to intervene).

In any case, recent evidence would suggest that generators are not deterred from exiting the market. Since 2014, more than 5,000MW generation has either exited, or announced their exit from the market. Most recently this included Alinta Energy retiring its Northern and Playford B power stations in May 2016 resulting in the last 760MW of coal-powered generation exiting the South Australian electricity market. In November 2016, it was announced that Victoria's 1,600MW Hazelwood generator will exit the market by the end of March 2017.

Certainly the investment or divestment decisions generators make may be influenced by, or a consequence of, government policy, but governments should limit their involvement to setting clear objectives and frameworks and minimising policy uncertainty, then leave retirement decisions to those that have the information and tools to manage the risks.

⁵ <http://aemc.gov.au/getattachment/5f6f00b4-709e-47c7-8daa-5bcd31cfacd/Submission-to-Emissions-Reduction-Fund-Safeguard-M.aspx>

⁶ <http://www.aemc.gov.au/Major-Pages/System-Security-Review>

In June 2015 the AEMC advised the COAG Energy Council of the range of factors that generators may consider in deciding whether or not to exit the market⁷. It found that the factors are complex and apply differently depending on the generator technology type and how the generator is structured. The range of factors generators take into account when considering whether to exit can be broadly categorised into the following areas:

- Direct costs
 - Plant shutdown, preservation, reinstatement and staffing costs
 - Decommissioning and remediation costs
- Indirect costs
 - Extent to which capital can be recovered
 - Contracts for inputs and outputs
 - Operational factors
 - Government inducements
- Other factors
 - First-mover disadvantage
 - Policy uncertainty

In many cases these factors and costs are, appropriately, within the control of the generator. However the AEMC's advice was that cost uncertainty (particularly costs related to policy uncertainty) is the key factor in deciding whether to exit.

This is because uncertainty about government policy or how it may be applied changes a generator's expectations about future costs or revenues. Generators are particularly affected by uncertainty regarding the following types of policies:

- Incentives for market entry (such as the renewable energy target (RET))
- Emissions reduction policies
- Inducements to exit (such as "contracts for closure")
- Environmental or remediation obligations

Where high degrees of uncertainty exist around the cost of exit, generators are likely to defer any decision until those costs become more certain.

For example, governments may require a certain level of site remediation where a generator exits, but the precise level at which this is set may not be known until the exit decision is made and is therefore hard to factor into decision making processes.

Uncertainty with respect to Commonwealth and state emissions reduction policies has an impact on the expectations a generator may have of net revenues forgone upon exit. Similarly, a generator may have an expectation that it will be paid for exiting the market which would improve its ability to recover value upon exit. Even where policymakers have stated a particular policy position, if the generator does not think the position is credible it may defer exit decisions.

Some level of uncertainty is expected; however governments can play a constructive role in encouraging efficient investment and divestment decisions by minimising policy uncertainty.

The Australian Government has committed to review its emissions reduction policies in 2017 having regard to its target of 26-28 per cent emissions reduction by 2030. This will be an important step in minimising uncertainty around policies that may impact the future revenue streams of coal power generators.

⁷ <http://www.aemc.gov.au/Markets-Reviews-Advice/Barriers-to-Generators-Exiting-the-Market/Advice-provided-to-the-COAG-Energy-Council/AEMC-Documents/AEMC-advice-to-SCER.aspx>

Governments can also continue to emphasise that there will be no payment for exit, and the existing market (which rewards participants based on the products and services they can provide at a given time) will not be replaced by a so-called capacity market (which rewards participants for the capacity they can provide regardless of whether it is used).

The AEMC would be happy to provide any additional information to the Committee to assist its inquiry. If you have any questions or require further information please contact me on (02) 8296 7800.

Yours sincerely

A handwritten signature in cursive script that reads "Anne Pearson".

Anne Pearson
Chief Executive