



The Hon. Josh Frydenberg MP
Minister for Environment and Energy
PO BOX 6022
House of Representatives
Parliament House
Canberra ACT 2600

Dear Minister Frydenberg,

On behalf of the Energy Security Board, the AEMC has completed its detailed modelling of the National Energy Guarantee for the Commonwealth Government. The quantitative results of this work are consistent with the initial analysis provided earlier. In brief wholesale electricity prices fall by about 23% over the 2020-30 period and in 2030 are 30% lower than a Business as Usual case. Retail prices in the 2020-30 period are about \$400 below current 2017 prices; renewables share of total output is expected to be about 36% by 2030, of which 28% is intermittent, while the Guarantee encourages just over 1000MWs of additional dispatchable capacity in addition to that which has already been committed. Importantly this modelling is based on an Australian Government target derived from international obligations made in the Paris Agreement.

More work on the Guarantee remains to be done in parallel with further consideration of other market design matters. The Guarantee integrates emissions reduction policy with reliability of supply and should make a substantial contribution to the orderly transition of the sector. But the Guarantee does not do everything that is needed. Both reliability and security outcomes demand other changes as well.

Some of the key considerations for the detailed design phase are highlighted below.

1. Reliability standard

The current NEM reliability standard is a planning standard (0.002% unserved energy, other than as a result of non-credible events, in any region in a financial year). AEMO is not currently predicting the reliability standard will be exceeded on an annual basis within its ten year forecasting horizon.

Operationally, however, the market operator is responsible for maintaining the system in a secure operating state and where possible seeks to do this with no involuntary load shedding so supply is reliable. The problem to be addressed by the Guarantee is a potential shortage of dispatchable and flexible resources at any given time to meet demand and address potential volatility of both load and generation. The reliability standard for the Guarantee will be designed to encourage investment in and operation of the mix of resources that will achieve reliability of the system at any time.

2. Market Design Rules

To make the Guarantee successful several aspects of existing market mechanisms are being or will be reviewed as part of addressing recommendations in the Finkel Report. This work includes consideration of day ahead markets and demand response. As the ESB develops the detailed elements of the Guarantee, it will also consider market design issues and carefully define what and where the problems are and not rule out consideration of any solutions without due analysis.



3. Appropriate incentives

In setting the reliability and emissions reduction requirements to be enforced through the Guarantee, the ESB is conscious of the need to produce a positive incentive for market participants to make sufficient reserves available and meet their emissions obligation. The compliance obligations should not add unnecessary risk for market participants, nor materially increase their costs. The ESB intends to consider design options against these principles.

The ESB report notes that renewable generators have not previously been incentivised to 'firm up' their capacity to become more dispatchable, due in part to the availability of renewable energy target revenues. The Guarantee will provide an incentive to do so in a manner that is likely to be more efficient and less costly than other alternatives.

4. Market power issues

For the Guarantee to deliver least cost outcomes it requires a reasonably competitive market. The ACCC is currently examining this matter. The ESB report presents preliminary analysis of current and emerging market impacts arising from a concentration of market power in the NEM, focussing on South Australia. It is important to note that similar impacts have been seen in other NEM regions. In some cases these may have different underlying causes and effects, and different forms of mitigation should therefore be considered.

It is clear to the ESB that more work is needed on the Guarantee and market design more generally to meet the outcomes specified in the Finkel Review. We look forward to getting this work underway and reporting back to the Energy Council on our progress at your next meeting.

Yours sincerely

Kerry Schott AO
Chair, Energy Security Board