

Comments on Energy Security Board National Energy Guarantee – Draft Design Consultation Paper 15 February 2018

Dr Kerry Schott AO
Independent Chair
Energy Security Board

Dear Dr Schott

Thank you for the opportunity to comment on the draft design consultation paper.

In preparing these comments, I have provided some general comments, which may have relevance in shaping the design process. These cover a wider range of issues including changing the level of VoLL, ensuring that the design should be simple and provide certainty over time, and financial and regulatory risk.

My detailed responses to your questions are set out in Pages 4-6. However the following material may assist in answering some of your questions more generally.

Background Comments

The market was designed in the early 1990's and only became operational from 1996. The market design was to remove excess capacity through a market system under which, when supply and demand came tight, higher pool price would elicit new plant be constructed. This market design has failed.

In understanding the general design of the National Energy Guarantee ("the Guarantee") it would be helpful if worked examples were provided. For example, it is not clear to what is the role of the pool price if generators are only bid to their contract levels.

General Comments

In order to achieve its dual objectives of the achievement of lower retail prices for electricity and the targeting of the climate commitments of the government requires a *design that is both simple in operation and provide certainty about the structure* to allow the power system develop over time.

The design needs to cover the role of the *transmission system*, as losses associated with high- and low-voltage transmission will impact on emission levels.

The level of Voll needs to be reviewed in developing the design.

The current high level of VoLL was meant to provide an incentive for new plant to enter the market *As a mechanism for reducing the potential for very high prices, the bid ranges should be compressed with a lower price band of say \$25/MWh up to \$100/MWh.* This would ensure that capacity was never above this market cap.

The current high level of VoLL also has an impact on the pricing for ancillary services. One way to avoid this situation is to require retailers to pay a flat fee for the provision of ancillary services, proportional to their load.

Financial and CO2 Risk

The use of contracts allows the volume risk to be avoided and allows generators to operate to their contract levels. This is very simple and is the best part of the Guarantee.

However, to ensure that the Guarantee accommodates additional generation to meet load growth requires that financial risk associated with new construction needs to be managed. This will not occur unless new financial arrangements are put in place.

This could be achieved if either the Commonwealth or the State could stand behind a generator proponent. For example funding for renewables is currently provided, by customers, through the RET system and this eliminates this risk. But there is no specific funding model for other type of plant.

There is a very real prospect that no private sector would construct and operate a plant because of the “shifting goal posts” on target CO2 levels. At the recent briefing, the Commonwealth speaker stated there would be a carbon target review on a five-year basis.

No lender would contemplate funding new plant if there was to be a change in the carbon target. There is no simple solution to overcome this aspect of risk other than managing financial risk in some way. The free market will not bring new plant in when there is a high level of financial risk

Estimating the cost of meeting the CO2 target

It would be very valuable if the Board could provide an estimate of the underlying cost of meeting the Paris Agreement level and the cost of meeting the reliability target separately.

Value of the Strategic Reserve

An associated aspect of market failure relates to highly contracted volumes of gas. The failure of the Commonwealth and State Governments, and also AEMO, to act on the severe tightening of the power market through large export of LNG volumes to Japan in particular is a major failing of the market.

While not in the draft design, this point should be that strategic reserves could provide a buffer when market prices move sharply upwards or there is a substantial lack of gas reserves. The US oil strategic reserve mechanism has been in place for many years and could be provided as a model.

Increase interconnection with Queensland.

One easy way of assisting the power system in times of tight reserves would be to enhance the interconnection between Queensland and NSW, which would require strengthening of the transmission system down as far as Bayswater.

Reliability Gap

In meeting the reliability gap will need to take into account lead construction times. This should be based on dispatchable and not intermittent plant in order to meet the firm reliability target. Part of this would require an assessment undertaken by AEMO understanding new construction to replace the coal plant. Life extension may help in meeting the generation dispatchable gap.

All of these proposals would need to be reviewed by an independent third party and information provided to AEMO as to the future likely of plant availability. This information should be should be signed off by the Chairman of the Board.

Contracting Issues

Qualifying Instruments: Simple contracts are required and would take the form of the ISDA contract.

These would provide a basis for one-to-one contracts and would be stapled with agreed performance guarantees. Performance guarantees can only be recognized by AEMO and by AER. They would in effect be an endorsement by both the retailer and the generator that it is expected that performance can be met.

The proposal by some users to place contracts on the futures exchange should not be accepted. *It would not add to the new arrangements of simplicity and may not be fungible.*

The contracts currently in the NEM were developed substantially after the market had started and ISDA contracts were well in place with retailers and generators. These were based in standard ISDA contracts.

There would be a good case to develop a fungible emissions market operated through the futures exchange. This would allow retailers to change their contracting positions and meet their CO2 obligations. It may well be that futures emission contracts would provide an indication of the cost of CO2 mitigation.

Allocating the gap to retailers.

These should be based on their current retailer loads. The gap will change over time. However, there is a very practical issue as to how allocation would work in practice. For example, if there was a requirement for an additional 1000MW to be required in several years time, and a retailer's "fair share" was less than this, who would need to write the contracts for the additional MW?

Another question is what would be the entity owning the new capacity?

Stakeholder Responses to ESB Questions

3.2.1 Compliance

The Australian Energy Regulator (AER) should administer compliance issues and the Clean Air Regulator subsumed into the AER to simplify the processes.

Compliance should be calendar year based and ex-post

3.2.3 Emission Measurement

This can be determined under the NGERs process. The emission levels need to be undertaken at the Unit level. The question of how transmission losses are treated would also need to be measured possibly in the same way that losses are assessed through the current market system.

The question of different emission plant should be determined by retailer. The retailer can then allocate generation in a method that minimizes emission levels on a portfolio basis. It would then assist in compliance.

3.3.4 Genter treatment of non-contractual arrangements

Gentailers should contract their generator and retail arms with contracts that are in-line with external contracts – effectively third-party contracts..

Whether this would be too complex to meet the broad objectives of the Guarantee is uncertain. In the design of the Guarantee, the emphasis should

be on compliance regimes that are simple administer from both the retailers and the AER and which meet the broad objectives of the Guarantee.

3.4.1 Carry-over of over-achievement.

No substantial over achievement should be allowed as retailers should be able to best estimate their contracted and un-contracted production. Having said that, limited bands over variations between overachievement of a small scale – say 2% would be adequate. No underachievement would be permitted unless there are plant issues – say forced outages.

3.4.3 Offsets

While the role of CO2 mitigation is focused on the electricity sector, the ability of other sectors (e.g. transport) which can identify a reduction in emissions level could be part of the futures contracts. For example, a retailer may be able to purchase emission credits from other verifiable emitters. Such contracts with non-electricity sector industries could allow emissions to be met at lower cost.

Offsets should be based on the retailer's load

3.5 Interaction with voluntary green schemes

There should be a separate treatment of Green Schemes and the Guarantee. The first is voluntary customer-based product while the Guarantee is an obligation.

3.6.2 Compliance Registry

A compliance registry would need to be established and publicly available for transparency purposes. This would be published after the event – say 3 months – and provide compliance on a daily and unit-by-unit basis.

3.7.1 Competitive Market

Market power will be dealt with by ACCC. However, market power will undoubtedly be embedded in a model whereby retailers will need to source electricity contracts from virtual monopoly provider of hydro power for example.

In addition, what happens if generators don't sell capacity at acceptable prices using market power? An associate issue would be who would transact with Snowy 2.

3.7.2 Jurisdictional Cover

The Guarantee should cover all jurisdictions, including Western Australia. These arrangements are not just NEM changes. Also, they need to cover non-grid power facilities such as remote generation for industrial facilities and self-generation – for example Alice Springs.

4.2.5 Interaction with state renewable energy schemes

State schemes and the Guarantee are entirely different schemes with roughly the same goals. The Guarantee would be in addition to the State schemes and they would need to be harmonized with the Guarantee over a period of time. The South Australian arrangements would be an offset to the Guarantee but other jurisdictions may need to adjust their generation mix.

5.3.2 ESoO and Mt Pasa

These functions should be maintained in their current format. Where necessary, there would need to be a firm obligation on plant variations and supported by Board minutes.

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