



# Submission to the Energy Security Board National Energy Guarantee Consultation Paper

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Confidentiality

This submission does not need to be kept confidential and may be made public.

The Science Party welcomes the opportunity to comment on this landmark policy development process.

## Preamble

*"Fifteen years of climate policy instability has complicated long-term investment decisions and required responses for system reliability and security have not been forthcoming. This has left our energy system vulnerable to escalating prices while being both less reliable and secure."*

This statement by the Energy Security Board (ESB) would find agreement from all stakeholders in our energy system. Unfortunately, the National Energy Guarantee (NEG) in its current form would continue the policy limbo and risks a complete freeze on energy infrastructure investment.

The ESB must dispel the urge to create more complex policy simply for political expediency. It must commit to creating policy that supports the energy transition without changing the market mechanics. To do otherwise leaves investors uncertain and apprehensive, and consumers certain—that they will pay higher prices for lower reliability.

To that end;

- Policies with complex accounting methods must be abandoned. They concentrate the market further and are more likely to have unintended consequences.
- Long-term, meaningful emissions reduction policy is the missing element creating so much uncertainty. This must be the primary focus of any policy change. Long-term in this case means beyond 2030.
- Any policy must fully integrate the ability for consumers to generate and store their own energy. Consumers must not continue to be short changed when participating in energy markets.

Let us examine the major policy recommendations from the ESB:

### 1. **Reliability Guarantee:**

Retailers will be required to enter into contracts related to dispatchable resources. The process surrounding the reliability requirement is expected to commence in 2019. *"The reliability requirement should build on existing spot and financial market arrangements to facilitate investment in dispatchable capacity."*

### 2. **Emissions Guarantee:**

Retailers must purchase electricity with an average emissions factor below the emissions trajectory determined by the Federal Government. The emissions requirement would be implemented in 2020.

## Issues

Here we examine some concerns with the major policy recommendations and make our alternative recommendations.

### **Reliability Guarantee issues**

- a) Financial contracts cannot guarantee reliable physical supply. Putting additional obligations on such contracts would result in an investment strike and increased cost for such products. The financial incentive to meet one's contracts are already the strongest in the world due to the high market price cap.
- b) Financial contracts have never underpinned investment in new capacity. Peak capacity has either been built by government or built to protect a retail position. The reason for this is that a 3-year horizon for swaps or caps is not enough to support investment in a 30+ year asset. Considering the build time for generators this statement from the ESB becomes farcical.
- c) Accounting will be enormously complex. The cost of compliance will most burden small players, favouring the existing triopoly of vertically integrated gentailers.
- d) What happens to Western Australia and the Northern Territory? Why are they not part of a national policy?
- e) Embedded generation such as small scale solar and batteries are not accounted for under the Reliability Requirement.
- f) The rule that generators must announce retirement with 3 years' notice does not account for the economic realities in operating aging assets. Unexpected component damage may render plant uneconomic without enough notice. Generators may announce retirement with no intention of running for the full period, e.g. once it's clear that refurbishment is uneconomic they could simply run plant to failure.
- g) AEMO can trigger a requirement for retailers to invest in new capacity. This arbitrarily creates winners and losers depending on market position and AEMO's forecast accuracy. The trigger will increase the volatility of retail contracts as retailers will place the marginal cost of new capacity on new customers. Investors may withhold investment to wait for the trigger to occur, reducing reliability to below safe levels and increasing costs to consumers.
- h) This is the first opportunity for private investment in new firm capacity. The sudden removal of Hazelwood Power Station meant that there was not enough capacity in development. A kneejerk reaction in policy will not solve our immediate problems and creates future problems. Either the market should be allowed to respond to the signal to invest (high prices), or government should acquire critical reserves.

The Science Party has identified two methods for government to acquire critical reserves in the short term without greatly impacting market dynamics:

**Recommendation 1:**

Commit to bidding at extremely high prices or only having generation available during Lack of Reserve conditions. This preserves the financial incentive for private investors to build new generation. An example would be the South Australian Government's recent purchase of open cycle turbines.

**Recommendation 2:**

Act as a long-term support for the cap market. E.g. purchase a long-term, low-cost cap and sell caps back to the market on a short term basis. Additional government-owned capacity could be owned by Snowy Hydro as this function fits their role as a peak capacity provider.

The Science Party agrees that the futures markets provide useful insight into competition, market efficiency, and helps to provide a signal to invest. However, stapling additional policy mechanisms onto the existing structure is bound to create unintended consequences. For example, selling caps from unreliable generators with a very high strike price would allow retailers to meet their obligations without imposing serious financial penalties on the seller.

**Emissions Guarantee issues**

- a) The averaging allowance for energy products not directly from one source means that plant more polluting than average can be sold as if it is much cleaner. E.g. brown coal can sell swaps without declaring emission, a buyer uses the average 0.9 ton/MWh instead of 1.4 ton/MWh. This dilution nullifies any attempt to reduce emissions.
- b) Concentrated demand means more power lies with the incumbent retailers. This has played out in the RET to the detriment of customers and generators.
- c) Accounting will be enormously complex. The cost of compliance will most burden small players again enhancing the triopoly of vertically integrated gentailers.
- d) What happens to Western Australia and the Northern Territory? Why are they not part of a national policy?
- e) Embedded generation such as small scale solar and batteries are not accounted for under the Emissions Requirement. This is likely to lead to consumers who export zero emissions energy to miss out on any associated benefits.
- f) Emissions per MWh is not static at each plant due to changing fuel composition or variable efficiency at part load. This makes it hard for fossil plant to accurately provide emissions data to their contract holder.

The proposed structure for emissions-intensive trade-exposed entities will encourage high emissions generation to contract with such entities. This will dilute the emissions trajectory because the weighted average emissions of remaining generation will be lower.

It seems that the structure of the Emissions Requirement is intended to be politically palatable to the current federal government; that is, it is not a structure that puts the requirement for emissions accounting on the emitters. This is a nonsensical approach. Emissions reporting is already managed under NGERs where emitters can accurately measure their entire emissions. The additional complexity and cost of accounting will create an emissions target with loopholes for emitters, and higher costs for consumers.

**Recommendation 3:**

The ESB could still keep the emissions threshold mechanism in an emitter-focused policy. This would help focus penalties on the worst emitters rather than moderate emitters (such as combined cycle gas generators). Accumulated payments from emitters need not subsidise low emissions generators. They could be used to compensate consumers or invest in infrastructure focussed on reliability and security, such as transmission upgrades or Snowy 2.0.

## Conclusions

The ESB's suggested policy changes threaten to complicate the market, stifle investment, increase costs, reduce competition, and lock in high emissions.

The ESB's highest priorities must be:

- Structuring policy that supports a long-term, meaningful emissions reduction trajectory.
- Inclusive frameworks for customers that fairly value participation, and rewards behaviour that benefits the whole of society.

The ESB should be cautious of complex or major market changes that could postpone the development of new generation.