

8 March 2018

Energy Security Board  
C/O Department of Environment and Energy  
PO Box 787, Canberra ACT 2601

To whom it may concern,

**Chemistry Australia – Submission to the National Energy Guarantee - Draft Design Consultation Paper**

Chemistry Australia welcomes the opportunity to provide this submission to the National Energy Guarantee - draft design consultation paper.

Chemistry Australia is the peak national body representing the business of chemistry. Members include chemicals manufacturers, importers and distributors, logistics and supply chain partners, raw material suppliers, plastics fabricators and compounders, universities, research agencies and service providers to the sector.

The industry is a significant consumer of electricity and gas for heat, steam and other forms of process energy. These include large scale chemical facilities producing hundreds of thousands of tonnes of fertilisers for crops as well as chlor-alkali plants reliant on process electricity to ensure chlorine remains in supply for the nation's water treatment demands. It also includes multiple plastics manufacturers supplying just-in-time hygienic packaging for the domestic food chains as well as the cold-chain exports of fresh fruit, vegetables and seafood.

Australia's entire society – businesses, consumers and governments – along with its natural environment receive enormous benefits associated with the value-adding by the industry to Australia's natural resources and energy. By supplying 109 of 111 Australian industry sectors, chemistry assists Australia to respond to, and address, global challenges of protecting the environment, ensuring a safe and sustainable food supply and improving standards of living in Australia and elsewhere.

Recognising the Board's desire for high-level design considerations, please find the following inputs:

1. The calibration of energy systems and policy must be targeted to the end-markets the utilities were established to supply.
2. Existing power supply vulnerability creates significant operational risk and costs for major power users relying on 24/7 supply for continuous production demands. Even small fluctuations in supply create operational stoppages with cost impacts in the hundreds of thousands, and in some cases millions, of dollars.



3. In addition to supply vulnerability, electricity price and contract increases further erode profitability and viability of companies throughout value-chains and customer bases.
4. Chemistry Australia generally agrees with the COAG Energy Council objectives of delivering lower emissions, reliable power systems with enough electricity available when needed at the lowest possible price.
5. Chemistry Australia also generally agrees with the need to integrate climate and energy policy to create a realistic investment climate. But this must be not only for power generation, but also for the power consumers using electricity to add wealth to economies and communities.
6. Chemistry Australia generally recognises the value of the design options in the Finkel blueprint recommendations including the following, with caveats:
  - a. The need for a strategic reserve is recognised, but care must be given to the size of the reserve and the cost to consumers
  - b. The development of mechanisms that facilitate demand response to the wholesale energy market. Care needs to be given here, again, to the calibration of demand response. For example demand response by major users may be beneficial to overall consumption patterns. However, this is clearly not the best solution for manufacturing investments.
7. Design considerations for electricity markets must have no adverse, or perverse, implications for domestic gas markets.
  - a. Importantly, the inextricable interoperability of the gas and electricity markets is now inherent
  - b. Current gas market reforms that have commenced are urgently needed to deal with the ongoing domestic gas crisis
  - c. Significant opacity and information asymmetry already exists in gas markets. Adding additional levels of information and complexity are likely to increase the potential for market power to be exercised.
8. Electricity supply considerations, including development of regional demand considerations, must factor in at least the following:
  - a. The interoperability of chemical plants with other major manufacturing facilities – either second tier chemical production or down-stream users. One plant’s outputs are often another’s inputs.
  - b. Significant seasonal variations that impact demand requirements.
  - c. That these and other factors are cumulative in their operational and supply chain impacts.
9. Chemistry Australia recognises the additional challenges faced by Energy Intensive Trade Exposed (EITE) companies. The exemptions in place for EITE customers must be maintained:
  - a. Given concerns the policy may slash wholesale market liquidity, making it difficult for end-users to manage their market risks
  - b. Gentailers are likely to be provided with an advantage over retailers with little or no generation who may be forced to pay a premium when procuring contracts specific to needs
  - c. The price setting mechanisms under flexible retail contracts could be compromised with potential to impact users
  - d. The ability for large, vertically integrated gentailers to influence market outcomes is likely to be enhanced.
10. The function, calibration and operation of system and emergency curtailment protocols for both the gas and electricity markets may need to be reviewed for suitability given any proposed changes.

Chemistry Australia looks forward to working with the Energy Security Board on this and other action to secure supply and price improvements for our members, broader industry and their supply chains.

For more information or if we can assist in any way, please don't hesitate to contact me at:  
[pbury@chemistryaustralia.org.au](mailto:pbury@chemistryaustralia.org.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Peter Bury', with a long horizontal line extending to the right.

**Peter Bury**  
**Directory - Strategy, Innovation and Research**  
**Chemistry Australia**