

30 September 2019

Energy Security Board
via info@esb.org.au

Dear Sir/Madam

Post 2025 Market Design - Issues Paper

Arrow Energy Pty Ltd (Arrow) welcomes the opportunity to provide comments on, and more specifically, responses to the questions in the Energy Security Board's (ESB) Post 2025 Market Design – Issues Paper.

About Arrow Energy

We explore and develop gas fields, produce and sell coal seam gas (CSG) and generate electricity. We have been safely and sustainably developing CSG in Queensland since 2000, supplying it commercially from the Bowen Basin since 2004 and the Surat Basin since 2006. Our Surat gas supplies Braemar, Braemar 2 and Daandine power stations and other power-generating customers; while our Bowen gas supplies Townsville Power Station and other industrial customers in North Queensland.

Arrow is the 100% owner and operator of the Braemar 2 Power Station (519MW) and has interests in the electricity sales from the Daandine (30MW) and Townsville (234MW) power stations. Each of these assets represents gas-fired generation, located in Queensland and dispatched into the National Electricity Market (NEM).

Overview

Arrow supports the National Electricity Objective (NEO) and agrees with the direction of the COAG Energy Council to understand the market framework best suited to the NEM.

Since the beginning of the NEM the mix of generation technologies, patterns of energy use and government energy and sustainability policy have changed. Arrow believes a detailed review of the NEM is timely, and extending the analysis to related commodity markets, overseas electricity markets and a mixture of possible future world scenarios is a prudent approach to assessing the optimal structure for the NEM into the future.

Arrow supports the Post 2025 Project (project), to establish a holistic view of the future development of the market and avoid the risk of simply layering incremental changes and potentially producing an inefficient outcome. Our response to issue paper questions is below.

Please do not hesitate to contact Arrow's Government Relations Manager Michael Todd on 07 30124823 or via email michael.todd@arrowenergy.com.au should you wish to discuss any aspect of this submission further.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Ivan Tan', with a horizontal line underneath.

Ivan Tan
Chief Operating Officer

Responses to questions

1. What scenarios and shocks should be used? How should these be used to test market design?

Arrow supports the ESB adopting the five, 2019-20 AEMO Integrated System Plan future scenarios as a foundation for the analysis.

2. How can market and economic modelling best be used to evaluate individual components of market design or the end-to-end market design?

Arrow understands modelling the NEM is complex; in particular modelling granular results that span a number of decades and multiple input scenarios. However, we are concerned that modelling is to be limited to energy only markets.

Arrow's preference is that all market structures be considered and assessed using a consistent approach. Not doing so introduces the risk of inadvertently or falsely excluding market structures potentially beneficial to the future market design. A comprehensive approach to modelling will improve the transparency and robustness of the project outcomes.

We believe that the significance of this requires time and investment to produce quantitative outcomes for analysis and to support hypotheses, particularly those formed on a qualitative basis or at a macro-economic level.

3. Is the assessment framework appropriate to evaluate the effectiveness of future market designs? What else should be considered for inclusion in the assessment framework?

Arrow supports the inclusion of the 12 principles listed in section 3.5 for evaluating market design. The effectiveness of the market design to support dispatchable generation is a key consideration, particularly given the need for dispatchable generation to support renewable generation technologies and overall system security.

4. Have we identified all of the potential challenges and risks to the current market? If not, what would you add?

Arrow has not identified any other potential challenges or risks.

5. Which of these challenges and risks will be most material when considering future market designs and why?

Arrow sees the most material challenge/risk being to ensure the market design supports long-term system stability, a transparent and liquid contract market (allowing participants to hedge financial exposures and to provide pricing signals) and promotes ongoing investor confidence.

6. Which (if any) overseas electricity markets offer useful examples of how to, or how not to, respond to the challenges outlined in this paper?

Power markets in the US and Europe have implemented a range of market design changes to accommodate the energy transition and the challenges that accompany it. A few examples of changes similar to ones proposed/forthcoming for the NEM include:

- ***PJM Interconnection*** - 5 minute settlement
- ***New England ISO*** - competitive demand-side response bidding (through capacity auctions)
- ***New York ISO*** - changes to accommodate DER bidding

Arrow sees benefit in the project reviewing a range of market designs, the outcome of any changes made, how effectively these changes have addressed the challenges and how well changes have integrating with the existing market structures. Literature that reviews and compares these market designs is also available. Arrow suggests the project considers reviewing such material to assist with forming and verifying market design hypotheses.