

## Reliability of power supply – at what cost?

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There is a great deal of misinformation and confused reporting on energy policy in Australia preventing the non-technical observer from drawing conclusions based on solid evidence. It is not a simple topic and as a result, can be portrayed in a light that suits the bias of the presenter. From the cost efficiency of wind and solar renewable power without regard to reliability or the implementation of battery technology to address intermittency without regard for scale, battery life or cost, all serve to muddy the waters of an understanding of appropriate policy.

The federal government's move to implement the National Energy Guarantee (NEG) places the responsibility on power suppliers to provide power that addresses the right mix of costs, emission intensity and reliability so that we can have uninterrupted power at a competitive cost and meet our commitments to global emissions reductions. This is the first attempt we have seen to bring together all the needs and aspirations of the consumer, but will it be successful?

Like the old saying, you may only pick two of these three – Fast, Cheap, Quality – You can have it fast and cheap, but not the quality, or high quality and fast, but not cheap. To have all three, you need to enter into a different paradigm.

While the NEG initiative is a very positive move and will help to address the growing unreliability of Australia's energy grid, unfortunately, there is one serious flaw in the proposal. Relying on the market, composed of a wide range of contributors, to optimise and address the most efficient solution to dispatchable power generation to support reliability is fraught with difficulty. Dispatchable power options such as combined cycle gas generation, coal-fired facilities, hydro, or nuclear, require aggregation of demand and coordination across the market and the development of projects of scale that would drive lower costs generation solutions. Without this coordination, the market will revert to high-cost options such as batteries, diesel generation and other smaller scale options.

Market participants have shown that they are short-term focused and intent on gaming the market mechanisms for immediate returns to bolster their bottoms lines. The environment that placed us in this dilemma was a result of operators embracing renewables and their subsidies to put at risk the reliability of the grid. There is little evidence that these companies would focus on optimum lower cost solutions to reliability. The lower cost, high-efficiency options require longer-term horizons and due to the requirement of aggregation of demand, do not place one producer above another. The most likely result is a fragmented approach to addressing reliability which may meet market competition tests but is a comparison of the worse choice options.

The NEG places a large bureaucratic load on industry and regulators alike. This is part of the cost of the nation's desire to address our contribution to the reduction of emissions. However, the responsibility to provide the most competitive means to achieve this outcome should be just as important. The NEG does not address the need for suppliers to collaborate to aggregate their needs for dispatchable power. The smaller supplier will be overcome by the larger suppliers ability to tap into more cost-effective options, and will thus drive the market to few operators who are unlikely to cooperate.

Investment in efficient dispatchable power generation requires longer-term horizons and, as currently demonstrated, there is a high degree of resistance to these investments. Gas fired power has traditionally been the back up for baseload power, but the gas market has been

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made exceptionally tight due to the actions of the market participants. If you are a gas supplier in Australia, you are very happy that the market pricing has more than doubled, and it is not in your interest to bring in lower priced gas from new fields or provide better access to existing sources. The recent experience of Incitec Pivot having to work with smaller operators and find their own sources of gas and access to their operations is symptomatic of the lack of transparency and efficiency of the gas market.

Only when the aggregation of demand and scale of operation is provided to overcome the sub-optimisation and fragmentation of the market can cost-effective solutions be provided to keep Australia's homes and businesses competitive. Cost-effective energy is essential to Australia's future, and while the NEG may address the need for reliability the immediate question is: At what cost?

The debate over how to provide the dispatchable power to deliver the reliability component of the NEG is critical. The two main options that have been surfaced are coal-fired low emission facilities, and a west-east pipeline to bring gas to support dispatchable power combined cycle gas turbines. The latter brings a bonus of lowering gas prices on the east coast, and if the Eastern States are unable to free up their existing gas resources to address these needs, then I know for which one I would vote.



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