



14 March 2018

Dr Kerry Schott
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Energy Security Board

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Dear Dr Schott

National Energy Guarantee, Draft Design Consultation Paper

CitiPower, Powercor and United Energy appreciate the opportunity to provide feedback on the National Energy Guarantee, Draft Design Consultation Paper.

We support the Energy Security Board's (ESB) mandate to deliver a lower emissions reliable power system with enough electricity available when needed at the lowest possible price. The mechanisms of the National Energy Guarantee (NEG) and the integration of energy policy and climate change policy is an important step. Long term policy support and certainty is required for a managed transition to a low carbon economy while maintaining reliability and supply security. Energy companies, including distributors and demand aggregators, have a vital role in facilitating this transition.

Security of supply is a critical issue for Australia's energy future. We appreciate the ESB is also looking at a range of complimentary measures including strategic reserve, demand response and day ahead markets to ensure we have the operational flexibility needed in the rapidly changing electricity market. However, we consider that demand response, which can help reduce the need for costly generation infrastructure needs to be included in the upfront design provided to Council of Australian Governments (COAG) in April. Policy settings need to allow for a variety of options to participate in demand response solutions without the need for direct contracts with retailers.

As the distribution networks encounter even more two way electricity flow and higher levels of solar penetration, there will be a cost to the network to accommodate connecting renewables and required investment in the shared distribution. Both transmission and distribution can be impacted by the formation of green zones and will need to be part of an effective planning process that considers the regulatory pricing periods.

We support the efforts to de-politicise energy and climate policy and look forward to working with the ESB on the relevant design aspects over the next 6 months. It is important that the detailed design and administration seeks to minimise costs where possible and limits the impacts on retail competition.

1 Emissions requirements

The NEG will require retailers to contract with, or directly invest in, generation, storage for demand response so that:

- There is a minimum amount of dispatchable energy available to meet consumers and system needs
- The average emissions levels of their electricity supports Australia's international emission reduction commitments as set by the Commonwealth Government.

The NEG allows retailers to contract or invest in generators or demand response to meet specified emission levels. The consultation paper notes demand management has an important role to play in delivering a reliable

power system at the lowest cost, and is a key factor in driving the transformation of the energy sector. Therefore it important demand side is not left to a possibly complementary work phase but properly integrated into the initial design provided to COAG in April 2018. The ability for demand aggregators to contract with distributors and other participants should be strongly encouraged in order to provide a vibrant market.

In Victoria, distributors with the adoption of AMI meters are able to provide a number of demand response solutions to retailers, aggregators (or to the Australian Energy Market Operator (**AEMO**)). These assets are already in use and it is economically prudent that they also be provide demand response services, potentially providing a cheaper alternative.

1.1 Contracting – generation source or emissions source

The emissions from generator could readily be determined from the National Greenhouse and Energy Reporting (**NGERS**), however, it is more difficult to determine the emission impact from the release from battery or demand response. A battery could be used for network peak shaving, could be used for rapid dispatch for wind generators or could be released from a residential customer where the battery charging occurred from solar generation rather than charging from the grid (which would have a large coal generation component). Battery emissions could be established based on a green charge or red/brown charge.

These matters should be considered in the initial detailed design, demand response is an important alternative to alleviate increased need for generation infrastructure.

1.2 Flexible Compliance Options

Some of the flexible compliance options appear to be a practical way of smoothing costs across years with higher renewable availability than other years. The over/under achievement of emissions with some ability of deferral appears practical to deal with this issue. However unlimited over achievement of initiatives should not be at the expense of small retailers or new entrant retailers ability to access generation sources.

1.3 Use of Offsets

The intent of the NEG was to encourage investment in various sources of generation and demand response in Australia to ensure that electricity was available where and when it is needed. The ability to offset emissions, with for example international carbon credits, could adversely impact the uptake of renewables and development of demand response options in the National Electricity Market (**NEM**). For the few hours or few days a year, a demand response should be encouraged, these solutions are likely to provide more flexibility for reliability and system security and the challenges of the transition ahead.

1.4 Enforcement Tools

The primary approach is to build a compliance culture. While the AER can ensure relevant information is available to retailers, they have understood the requirements and mechanisms through which to meet their requirements, the markets also need to deliver viable and prudent contracts to support the approach. The potential current enforcement tools available to the AER are sufficient.

2 Emissions requirements – Commonwealth Governments responsibilities

We support consistency between Australia’s international targets post 2030 and the NEG post 2030 targets as this will provide coherence between domestic and international climate change policy. This policy approach should facilitate long term investment certainty and should drive investment assuming the targets are appropriately set.

Whilst the NEG emissions targets are established NEM wide, reliability and security of supply are local issues and will be limited by interconnectors. We support the approach that state governments policies to encourage renewables or low emissions investments are also able to count towards meeting the NEG.

3 Reliability requirements

The reliability requirements appear to focus on sufficient generation to meet peak demand requirements. Generation should not be considered in isolation to demand response and opportunities to reduce transition costs. Demand response opportunities need to be considered upfront as part of the tool kit of responses and not just as a possible AEMO procurer of last resort option. This approach would allow much more flexibility at a state and local network level.

Whether the reliability gap is met by generation or demand response it has the same outcome of meeting the reliability gap. The NEG should be established in a manner that allows demand response options to be considered in the same manner as generation. ARENA and AEMO have supported our participation in the Reliability and Emergency Reserve Trader (**RERT**) to provide meaningful services. CitiPower and Powercor have provided 130MW of demand side response over the 2017/2018 summer period. This service would not have been enacted without AEMO's RERT responsibilities. Collectively we have access to over 1.7 million customers and a potential of up to 300MW of demand side capacity reduction. Other distributors in Victoria could add another 200MW of potential demand side capacity reduction.

RERT or a strategic reserve mechanism controlled by AEMO is a critical element to ensuring the NEM's energy security, particularly as significant uncertainty on wholesale energy production is anticipated over the next decade as coal fired power stations close and the market transitions to increased renewables. Relative to other capacity reduction or generation options this smart meter voltage reduction capability is incredibly affordable, does not require lengthy Development Approvals and can be enacted at short notice. It is here today and can be contracted by AEMO on a standing basis.

The dispersity of retailer's customers across each region means that retailers are not in a position to work with distributors to find a contractual mechanism to help hedge their anticipated load. Smart meter demand response does not fit neatly with a typical retail-generation contract given that retailers are spread across the state and not specific to a distributors feeders. There is no AEMO settlement for this type of demand response capability making it challenging to commercially incentivise retailers to actively consider it.

Even though there are challenges contracting with retailers, the option should still be provided for distributors to provide demand response offerings to retailers, demand aggregators or AEMO. These services would only be utilised in a competitive market if the price and terms were acceptable. Expansion by a distributor into a complementary market that, because of the efficiency or technical expertise we have providing services on the local network, causes others to exit or decide not to enter, is a normal part of the competitive process and will increase, not lessen competition.

4 Governance of the Guarantee

All governments supporting the NEG will provide certainty for long term investment decisions and enable effective implementation of the NEG. The ESB's preferred option is for implementation of the framework largely under the existing NEM governance arrangements. This would involve amendments to the National Electricity Law, National Electricity Rules and Australian Energy Market Agreement. Further amendments over time to refine the mechanism would be conducted via the normal Australian Energy Market Commission (**AEMC**) rule change process rather than large scale reviews. We support the ESB's view that this would maximise consistency between reliability and emissions requirements, reducing complexity and compliance costs for registered participants. We consider that this is a practical approach and allows improvements in demand response, aggregators etc. to occur over time as these markets evolve.

We acknowledge that the package of changes could also require technical amendments in a number of other Acts such as the National Greenhouse and Energy Reporting Act, Clean Energy Regulator Act, Renewable Energy (Electricity) Act etc.

If you have any questions please do not hesitate to contact Brent Cleeve on 03 9683 4465 or bcleeve@powercor.com.au.

Yours Sincerely



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