

Submission to the independent review into the
future security of the national electricity
market



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Dear Panellists,

Thank you for the opportunity to make a submission to the Independent Review on behalf of the Centre for Policy Development (CPD).

In December 2016, CPD and the Sustainable Finance Programme at the University of Oxford jointly released a discussion paper titled *Avoiding Gridlock: Policy directions for Australia's electricity system*. This research focuses on regulation of distribution networks in the National Electricity Market (NEM). I authored the paper as a CPD Research Associate and recipient of a studentship through CPD's Sustainable Economy Program.

Avoiding Gridlock concludes that any review of the NEM must turn its attention to some of the deficiencies and risks in the regulated domains of transmission and distribution. The performance of these parts of the NEM has objectively failed consumers on price over the past decade, and therefore has breached the National Electricity Objective. The distribution and transmission components of the grid are also struggling to adapt to a future that will involve more frequent severe weather events due to a changing climate, and increasing penetration of variable renewable energy.

The discussion paper makes the following high-level recommendations:

1. Develop regulations to prevent companies that own electricity networks from engaging in beyond-the-meter services and other naturally competitive markets, due to the minimal or negative benefit this will provide to consumers and the high risk of uncompetitive behaviour.
2. Through a revamp of the National Electricity Law and the National Electricity Objective, direct networks to a focus on whole-of-system resilience in a future of high penetration of distributed renewables and batteries and the context of a changing climate and more severe weather patterns. This implies a move away from infrastructure investment dedicated to meeting peak demand events.

Increasingly, the marginal demand during these low-frequency, high-demand events can be cost effectively met by distributed generation and storage.

3. Restrict the exclusive hold of networks so it only applies to the parts of the electricity system that are core business – that is, the poles and wires. Other parts of the system should be open to competition. Excision of network exclusivity should be the rule rather than the exception.
4. Legislate changes to the valuation and treatment of Regulated Asset Bases to reduce network tariffs to reduce the cost burden of electricity bills on Australian homes and businesses.

Drawing from the discussion paper, the CPD responses to select guiding questions of the Preliminary Report of the Independent Review are as follows:

Question 2.1 How do we ensure that consumers retain choice and control through the transition?

Consumers need to be provided certainty that the benefits generated through behind-the-meter services are transparently shared between the consumer and the broader electricity system. One regulatory means to provide consumer protection to this end is it to block Network Service Providers (NSPs) from providing behind-the-meter services. As *Avoiding Gridlock* notes:

“Considering the negative learning and poor adaptability of NSPs in the changing context of distributed generation and storage, and the poor track record on smart meters in Victoria, there is a strong case that NSPs be structurally barred from operating competitive arms in new energy services, particularly behind-the-meter services for residential or small business customers.” (p. 32)

NSPs have existing, albeit usually poor, customer relationships with electricity consumers. With the status of an essential service provider, their affiliates may have undue bearing in pushing behind-the-meter services on consumers and competitive advantages through access to customer data.

Submissions to the 2016 Inquiry into Ringfencing by the Australian Energy Regulator showed consumer advocacy groups united in their objection to NSPs gaining access to behind-the-meter and other naturally competitive markets. In stark contrast, NSPs saw no consumer protection issues with unfettered access by subsidiaries of NSPs. These views are summarised in the Appendix of *Avoiding Gridlock*. The Final Guidelines on Ringfencing, released in November 2016, bend towards the view of NSPs.

Question 2.2 How do we best meet the needs of vulnerable and hardship consumers?

The largest portion of an electricity bill are tariffs for transmission and distribution. Transmission and distribution tariffs have also been the greatest driver of retail electricity price growth, with electricity prices doubling between 2007 and 2013. High retail electricity prices led to increased incidence of energy poverty and high numbers of disconnections.

There have been several extensive assessments which have called for write-downs of electricity networks' Regulated Asset Bases (RABs) to reduce network tariffs required to service revenue caps. One assessment compares the current RAB values to maximum efficient values, and found that across the NEM the current RAB of \$86.3 billion should be revised to \$47.9 billion, a write-down of 45 per cent.¹

A range of other reports by the Federal Parliament, state governments, statutory bodies, public interest groups and policy institutes provide evidence of the need for write-downs. One of these, the Australian Senate's Inquiry into the Performance and Management of Electricity Network Companies, recommended in its final report that "state governments seeking to privatise their electricity network assets examine whether those assets are overvalued and if the regulatory asset base should be written down prior to privatisation."²

The regulations for setting network tariffs have been too generous to NSPs. A reset of RAB values through a write-down would recognise the damage caused by excessive tariffs in the past, and reduce tariffs going forward.

Question 4.4.1: How can the regulatory framework best enable and incentivise the efficient orchestration of distributed energy resources?

AND

Question 6.2: What are the alternatives to building network infrastructure to service peak demand?

Instead of applying inflexible tariffs to consumption, regardless of where the electricity is purchased, NSPs could apply lower tariffs for peer-to-peer sharing of solar electricity. The transmission of excess solar electricity between neighbours or households on the same substation area does not use the entire span of the electricity grid, and therefore should be charged a lower tariff. This would be cost reflective and assist in maintaining the relevance of NSPs in a future of high penetration of renewables. The National Electricity Rules should be altered to direct NSPs to charge more cost-reflective pricing for local distribution of renewable energy.

¹ Grant, H., 2016, *Assets or Liabilities: The Need to Apply Fair Regulatory Values to Australia Electricity Networks*, Brisbane.

² Senate of Australia, 2015, *Performance and management of electricity network companies: Final Report*, Canberra.

The present jurisdiction-wide application of Feed-in Tariffs (FiTs) is a blunt instrument that ignores local infrastructure overbuild or weaknesses. Minimum FiTs across the National Electricity Market are currently between 5 and 8 cents, and are too low to provide a substantive incentive to export excess solar electricity, particularly when compared with electricity bill reductions that can be achieved through storing that excess for later consumption with a battery.

To avoid costly network augmentation in specific areas (particularly greenfield residential developments), premium feed-in tariffs could be applied to PV systems, and incentives could be provided for on-demand responsive systems such as batteries. This would reduce regulated asset bases and corresponding network tariffs for all customers on the network, not just those in the area in question.

Avoiding Gridlock is attached in full for the Panel's information. Further details about the discussion paper can be found online at <https://cpd.org.au/2016/12/avoiding-gridlock/>.

Thank you for the opportunity to make a submission to the Inquiry.

Yours sincerely,

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