Submission to the Senate Economics Legislation Committee Inquiry into the Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill 2018

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Summary and key recommendations

There is clearly an issue with market concentration and market power in the National Electricity Market (NEM). I broadly support the measures proposed in the *Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill 2018* (henceforth, the bill), including the option of divestiture orders. However, as outlined in this submission the bill as currently drafted is limited, and divestiture order are likely to be unenforceable.

This document provides recommendations, for consideration by the Senate Economics Legislation Committee. The key recommendations are highlighted below, and supporting details can be found in the following pages.

Recommendation 1: Divestiture orders should apply to prohibited conduct in the electricity contract market, where market concentration issues have a more significant impact.

Recommendation 2: Provide a list of factors that must be considered by the Treasurer or Courts when determining whether the use of the penalties are 'proportionate' to ensure that the threshold tests are implemented in a manner that complies with the wishes of Parliament.

Recommendation 3: Amend the definition of prohibited conduct in electricity spot market to include both scheduled loads, and non-scheduled generators.

1 Market power and the divestiture order

The 'gentailer' model that is now ubiquitous in the National Election Market (NEM) was not envisaged or part of the design when the electricity system was originally liberalised (as part of broader competition reforms). Indeed the vertical disaggregation of of state owned monopolies (along-side corporatisation and privatisation) was intended to introduce limited competition at each level of the industry (except transmission and distribution systems which were seen as 'natural monopolies'). In the original market design, generators and retailers were expected to compete within their own 'layer' of the market to increase efficiency and keep electricity prices down[1].

While it was not expressly forbidden, cross-ownership between generation and retail was initally not intended. The Australian Competition and Consumer Commission (ACCC) unsuccessfully tried to enforce a ban on cross-ownership. In 2003, the ACCC failed to prevent AGL, a retailer at the time, buying a major stake (35%) in a key Victorian generator in the significant case Australian Gas Light Company (AGL) vs. ACCC (No 3) in the Federal Court of Australia[2]. As a result of this decision in particular, the re-emergence of vertical integration began. The number and size of 'gentailers,' that is retailers and generators belonging to the same company grew following on from this decision.

By 2012, the ACCC decided not to take action against a full takeover by AGL of the same power station[3] . The ACCC did however try to prevent the ownership of the Macquarie Generation assets (Liddell and Bayswater) when it was privatised by the NSW government[4]. This decision was later over turned by the Australian Competition Tribunal. Not only has the original intention of competition within layers been lost, but the competition regime has failed to prevent additional and significant market concentration through acquisition. Although not part of this bill, it is also worth mentioning that the ACCC specifically recommended limiting market concentration by preventing further acquisitions beyond a particular market share (something it has been wholly unsuccessful at preventing to date).

There are several metrics that can be used with respect to assessing market power in electricity markets. This include traditional concentrations metric such as the Herfindahl–Hirschman Index (HHI), as well as more bespoke metrics (such at the Pivtoal Supply Index, PSI). The Australian Energy Regulator previous reported both the HHI and a similar metric to the PSI - the Residual Supply Index).

The HHI index is presented as a number between 0 and 10,000 (with 10,000 representing a complete monopoly). In the 2018 'State of the energy market' report shows annual HHI trends for each of the four mainland states for the last five financial years. All regions are reported to have a HHI value above 2000, though there is considerable variation across the regions (with SA having

[1]Outhred, H. 1998. "A Review of Electricity Industry Restructuring in Australia." Electric Power Systems Research 44 (1): 15–25. doi:10.1016/S0378-7796(97)01210-8.

[2]Federal Court of Australia. 2003. Australian Gas Light Company vs ACCC. 5. 19 December

[3]ACCC. 2012. ACCC not to oppose AGL's acquisition of Loy Yang Power. Accessed 15 October 2014. http://www.accc.gov.au/media-release/accc-not-to-oppose-agls-acquisition-of-loy-yang-power.

[4]ACCC. 2014. ACCC opposes AGL's proposed acquisition of Macquarie Generation. Accessed 15 October 2014 https://www.accc.gov.au/media-release/accc-opposes-agls-proposed-acquisition-of-macquarie-generation

the highest value). This is considered to be highly concentrated , both domestically and abroad. Some comparisons are listed below:

- An HHI value of 2000 is used by the Australian Competition and Consumer Commission (ACCC) to flag competition concerns in their merger guidelines (which are not specific to the power sector)[5].
- The UK's Office of Gas and Electricity Markets (OFGEM) regards an HHI exceeding 1000 as 'concentrated' and above 2000 as 'very concentrated'[6].
- The U.S Department of Justice considers markets to unconcentrated at below 1500, moderately concentrated at 1500-2500 and highly concentrated at 2500[7]

The impacts of such concentration and vertical integration are predominately felt through the derivative markets. This includes both the Exchange Traded Futures and the Over-the-Counter contract markets. While market power abuses can also manifest through the spot market, this is generally transient in nature and has less of an impact on long term price outcomes for customers, compared with the impact of limited competition in the derivatives markets. To the extent that a divestiture orders should be limited, it would make more sense to apply these orders in cases of misconduct in the financial markets.

> **Recommendation 1:** Divestiture orders should apply to prohibited conduct in the electricity contract market, where market concentration issues have a more significant and longer lasting impact.

1.1 153ZB Making of divestiture order

Within the proposed amendments, one area that requires greater consideration is the threshold tests for whether and when the various forms of penalty may be applied to prohibited conduct. In particular, while the term 'proportionate' is used six times in the amendments, that term lacks definition. This is a large oversight, particularly in the case of divestiture orders (clause 153ZB). The consequences for a company that flow from such an order are extensive. Even setting aside the financial impacts, the impact on business planning and reputation will be considerable. The legislation should be drafted on the assumption that any such order will be aggressively defended. It is imperative that this term be defined so that the legislature has greater control over weighing the issue of when such an order is proportionate.

On current drafting, it is open to the Courts to take a narrow view of proportionality, such that only the direct impacts of the specific instance of prohibited conduct is weighed against the net detriment they will be subject to should the divestiture order proceed. If this view is adopted,

[5] ACCC. 2008. Merger guidelines. Canberra: Australian Competition and Consumer Commission.

[6] OFGEM. 2015. Wholesale Energy Markets in 2015. London, United Kingdom: Office of Gas and Electricity Markets.

[7] U.S. Department of Justice and Federal Trade Commission 2010, pages 18 and 19.

divestiture orders could almost never be proportionate. Section 153 in the amended legislation should be supported by a section or sections to the following effect:

> *For the purposes of section153P, 153S, 153W, 153Y, 153ZA or 153ZB, when determining whether a notice, order, or variation or revocation of an order is proportionate, the Treasurer or Court must have regard to:*
>
> *(d) the direct impact of the prohibited conduct;*
>
> *(b) the public interest in ensuring energy markets are free from the class of prohibited conduct specified, whether from this body corporate or others;*
>
> *(c) the financial impacts on the body corporate of the decision to issue that notice or order, or to vary or revoke that order; and*
>
> *(d) whether such a notice or order, or variation or revocation to an order will result, or is likely to result,in a benefit to the public.*
>
> *2. For the purpose of paragraph (1)(c), if a notice or order, or variation or revocation of an order will result, or is likely to result, in a detriment to the public, then that a benefit to the public is to be found if the benefit outweighs that detriment.*

Doing this will ensure that the Courts have clear guidance from the legislature over which matters are relevant to their consideration of proportionality and ensures that they do not take a narrow view.

> **Recommendation 2:** Provide a list of factors that must be considered by the Treasurer or Courts when determining whether the use of the penalties are 'proportionate' to ensure that the threshold tests are implemented in a manner that complies with the wishes of Parliament.

2 Prohibited conduct—electricity spot market

The "basic case"[8] and "aggravated case"[9] of prohibited conducts in the electricity sport price explicitly refers to a corporation that *bids or offers to supply electricity* or *fails to bid or offer to supply electricity*. This definition excludes some participant and behaviour that would be (and in some cases has already been) considered fraudulent, dishonest or in bad faith.

Firstly, this definition excludes scheduled loads or demand side activities that also effect spot market outcomes. This includes storage technologies such as pumps (in the case Pumped Hydro Energy Storage) or batteries, as well as large loads that may chose to participate in the spot market. While the demand side and storage technology are at a nascent stage of development, there is broadly expected to be more activity in this space over the coming years and decades. These technologies and participants can also impact the spot market in ways could be considered fraudulent, dishonest or in bad faith.

Secondly, this definition excludes a class of actors that currently participate in the National Electricity Market, but do make offers to supply the market: Non-scheduled Generators. These generators do not receive dispatch instructions from the market operator based on submitted offers, but receive still receive the market price. These generators can also influence the supply demand balance, and hence the spot market outcome in certain circumstances.

There is historical precedent for this particular behaviour. The Angaston Power Station (operated by Snowy Hydro) systematically withdrew supply that created spikes in the South Australian market region (see Figure 1 and Figure 2 in the appendix). This behaviour was estimated to have estimated to have increased costs through the South Australian region of the National Electricity Market by $30 million dollars[10]. The issue was identified by the Australian Energy Regulator, who stated that 'strategic changes to the output of non-scheduled plant [can trigger] a series of high prices'[11] and re-classified Angaston as a scheduled generator at the end of May 2016 (but did not impose any fines).

> **Recommendation 3:** Amend the definition of prohibited conduct in electricity spot market to include both scheduled loads, and non-scheduled generators.

For example, Section 153G (a) (i) could be changed to *participates in the electricity market as either a scheduled, semi-scheduled or non-scheduled generator or load.*

[8] Section 153G

[9] Section 153H

[10] See.McConnell, D. & Sandiford, M. Winds of change: An analysis of recent changes in the South Australian electricity market. (Melbourne Energy Institute, 2016) for further details

[11] AER. 2015. State of the energy market 2015. Melbourne, Australia: Australian Energy Regulator.

Appendix

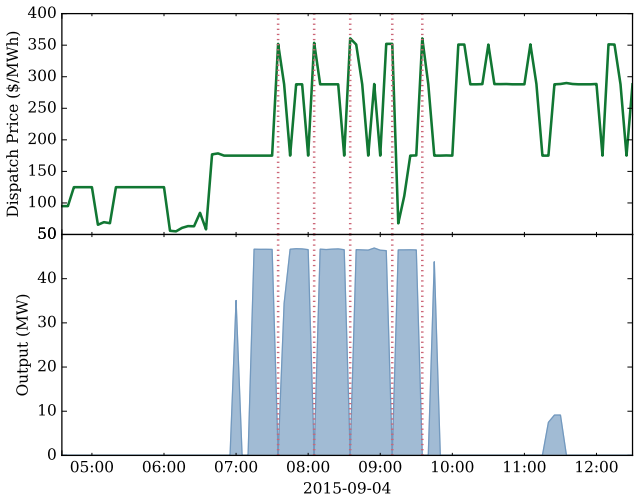

Figure 1: Example of systematic withdrawal of supply by Angaston Power Station impacting prices. The pattern of dispatch between 7:30 and 10:00 am on the morning of 4 th September 2015, was characterised by a withdrawal for one dispatch interval in each of five successive settlement periods(bottom panel), each of which corresponded to a price spike of about $170/MWh (top panel).

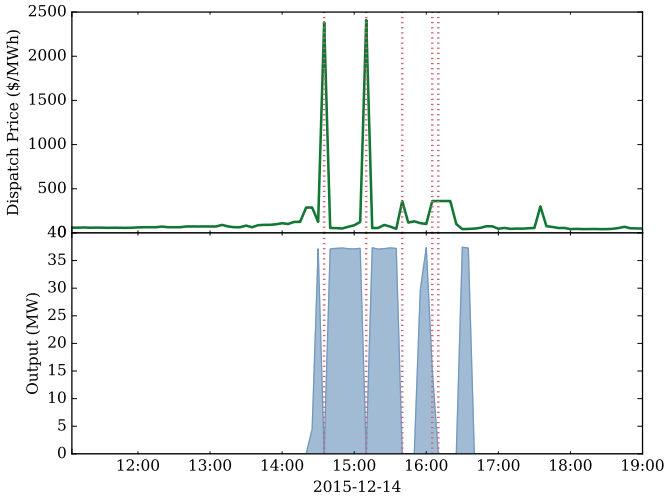

Figure 2: Example of withdrawal of supply by Angaston Power Station corresponding with extreme scarcity pricing events. Between 7:30 and 9:00 am on the morning of 27 th August, 2015, on two separate occasions the withdrawal of dispatch (bottom panel) correlated with price spikes exceeding $14,000 MWh (top panel).