IMPLICATIONS OF WAVING THE 'BIG STICK'

REPORT FOR THE AUSTRALIAN ENERGY COUNCIL

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EXECUTIVE SUMMARY

Australia used to have a great power system and a stable electricity market that was the envy of the world. Unfortunately, this is no longer the case. The power system and market are in a constant state of crisis.

This deterioration in both the security of the power system and the market investment environment are the fault of failed government policy, not the industry's reaction to the market conditions created by these failed policies.

While there are many policy failures to blame for Australia's energy sector woes, by far, the main failure has been the inability of Australian politicians to manage the challenge of reducing greenhouse gas emissions from the electricity generation sector. There are two main aspects to this policy failure:

- The first main policy failure was the failure to appreciate that pursuit of emissions reduction from the electricity sector would fundamentally alter the way the power system functioned. This failure to recognise the gravity of the changes required to meet the emission reduction challenge has meant that the constant and incoherent tinkering with the energy market has exposed energy consumers to unnecessarily high costs and deteriorating energy security; and
- The second main policy failure was the rejection by various governments and political parties of all persuasions of emission reduction schemes that did properly integrate the emission reduction arrangements into the energy market.

In combination, these policy failures have resulted in a power system operating at its physical limits. Unsurprisingly, in this environment where generation capacity is scarce, prices reflect this outcome. In fact, this price outcome is precisely what the National Electricity Market was designed by the government to do under these circumstances.

Now, instead of trying to address the root cause of the problems resulting in these price and power security outcomes, the Federal Government has drafted legislation to prohibit three types of electricity business conduct the government blames for the poor consumer outcomes:

1) Failure of electricity retailers to pass-on reductions in supply chain costs to residential and small business customers through lower retail tariffs (***Retail pricing prohibition***).
2) Failure of electricity generators to offer, or to offer on reasonable terms, financial contracts to potential counterparties for the purpose of substantially lessening competition in any electricity market (***Electricity financial contract liquidity prohibition***).
3) Electricity businesses bid or fail to bid in the electricity spot market in a way that is fraudulent, dishonest or in bad faith and/or for the purpose of distorting or manipulating prices in the spot market (***Electricity spot market prohibition – base case and aggravated case)***).

In each case, the proposed legislation provides for the ACCC to issue public warnings, infringement notices (worth over $120,000 each) and apply to court for injunctions and penalties of hundreds of millions of dollars ***each*** if the ACCC reasonably believes the business has committed a breach.

Further, for the:

- ***Electricity financial contract liquidity prohibition*** – the ACCC can recommend the Treasurer make a 'contracting order', which obliges the business to offer financial contracts of a certain type for a certain period at certain prices. If the ACCC believes that the business has failed to comply with the order, the ACCC can apply to a court.
- ***Electricity spot pricing prohibition*** – the ACCC can make a 'prohibited conduct recommendation' to the Treasurer, which allows the Treasurer to apply to a court for divestment of the business's assets.

Importantly, in neither case do courts need to determine whether the benefits of the intervention outweigh the costs. This allows the ACCC and the government to effectively circumvent competition law.

The Government's Explanatory Memorandum provides some commentary and examples about where and when each of the proposed prohibitions could apply:

- ***Retail pricing prohibition*** – when there was been a 'sustained and substantial' reduction in input costs. But how sustained and how substantial is left very unclear. This will likely encourage retailers to shorten the duration of the retail contracts they sign with customers to enable retailers to demonstrate that their prices are consistent with costs and returns within the (short) contract period. As a consequence, customers will face much more volatile prices than they have to date. It could also deter new retail entry.
- ***Electricity financial contract liquidity prohibition*** – when generators are viewed as effectively refusing to supply contracts, having regard to their own 'genuine' needs and plant capabilities. This could perversely result in generators being *less* willing to offer retailers load-following and large or long-term contracts in order to maintain their ability to appear more visibly active in the market.
- ***Electricity spot market prohibition*** – at almost any time, due to the highly confusing and subjective guidance provided in the Explanatory Memorandum as to when – if ever – generators are able to bid in a normal commercial manner. This may lead to more 'passive' forms of behaviour, such as consistently bidding output at higher prices than previously, or consistently offering a smaller share of plant capacity into the market. As indicated by the ACCC, it would also tend to deter investment in new generation plant as well as existing plant maintenance and refurbishments. If an aging baseload plant were to exit as a result, wholesale prices would be likely to rise materially.

These interventions are the latest in a series of industry controls that the government promotes as a panacea to the energy sector's woes. Unfortunately, all these draconian government controls achieve is to increase risk for industry participants. Industry participants respond to this risk by winding back their investment in the sector. The consequence of this investment wind back is that States are having to step in and use taxpayers to sponsor and/or underwrite power sector investments. So what consumers avoid paying due to lower retail prices confected by the government's controls they will be lumped with – and then some – as State taxpayers. That is, the Federal Government is simply shifting and multiplying the costs of its policy errors on to electricity consumers and the States and their taxpayers.

For example, nearly all NEM States and Territories have now put in place various subsidy schemes to promote the development of renewable generation facilities and NSW has now initiated a scheme to provide taxpayer support for network investment to facilitate the shift to a lower emission generation system.

To manage its increased risk exposures, businesses will respond to the government's latest industry controls by making further changes in the way they transact with one another and with customers. Like the government's earlier interventions, none of these changes will address the underlying causes of Australia's energy problems. Indeed, customers will be worse off as a result of these latest controls.

For example, to manage the risk and consequence of retail price controls, which could result in prices being set below costs, retailers will simply shorten the duration of contracts with customers. This will expose customers to more volatile price cycle than presently occurs. This will be particularly difficult for customers who want longer term price certainty. These are usually customers for whom electricity represents a significant share of their total costs – industrial and commercial customers. This in turn will make it more difficult for these customers to plan their own power use and business development.

Similarly, the omnipresent threat of a government forcing electricity businesses to transact with businesses on terms they would prefer not to will cause businesses to react in ways that will make things worse. By definition, if a business is forced to transact with a business on terms it would not otherwise accept, its investment return will be diminished. If there is even a risk that a business could be forced to transact with a poor counterparty or at an administered price, investments will become costlier. This will increase prices, and/or deter investors from making any further investments.

If the risk of price regulation and forced contracting with poor counterparties is not sufficient to kill investment in new generation, then the risk the government will force the sale of a business's asset to another party certainly will.

Collectively, these new government powers to micro-manage the industry to disguise market outcomes that are borne of government policy failure will create a diabolical investment environment, the inevitable result of which will be taxpayers funding and underwriting all future investments.

Given the sheer magnitude of the future investment required to achieve Australia's obligations under the Paris Agreement, the States had better start making substantial changes to their public finances to pay for these costs, including determining which taxes to raise and/or which spending programs to cut.

1 INTRODUCTION

1.1 Background

As part of its attempts to reduce electricity prices for consumers, the Federal Government has drafted legislation to prohibit three types of conduct by electricity businesses:

1) Failure of electricity retailers to pass-on reductions in supply chain costs to residential and small business customers through lower retail tariffs.

2) Failure of electricity generators to offer, or to offer on reasonable terms, financial contracts to potential counterparties for the purpose of substantially lessening competition in any electricity market.

3) Electricity businesses bid or fail to bid in the electricity spot market in a way that is fraudulent, dishonest or in bad faith and/or for the purpose of distorting or manipulating prices in the spot market.[1]

This report has been prepared by Frontier Economics for the Australian Energy Council (AEC) to highlight and discuss the potential short and long term implications of the Government's draft legislation for electricity market conduct, investment and price outcomes.

1.2 Structure

This report is arranged as follows:

- Section 2 outlines the proposed prohibitions and seeks to explain both how they are *intended* to work in principle.
- Section 3 discusses how the interventions, singly and in combination, are likely to change the behaviour of the target businesses and other electricity businesses and how these changes will affect the operation of the market, costs and prices. This section includes a discussion of the potential pricing implications of further baseload plant exit.
- Section 4 considers the wider behavioural and investment implications of the proposed interventions for other sectors in the economy.

[1] Parliament of Australia, Weblink: https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r6256 [Accessed 19 January 2019]

2 PROPOSED PROHIBITIONS

2.1 Relevant instruments and provisions

As noted above, the Federal Government has drafted legislation to prohibit three broad types of conduct in the Australian electricity industry (the Amendment Bill).[2] The changes involve the insertion of a new Part XICA in the *Competition and Consumer Act* 2010 (CCA), immediately following Part XIC on the telecom access regime.

The proposed prohibitions in the Amendment Bill are contained in Division 2 of Part XICA, and are summarised as follows:

- Section 153E provides that an electricity retailer engages in prohibited conduct if it fails to make 'reasonable adjustments' to its retail tariffs to reflect 'sustained and substantial reductions in its underlying cost of procuring electricity'. (***Retail pricing prohibition***)
- Section 153F provides that an electricity generator engages in prohibited conduct if it:
  - fails to offer financial contracts
  - offers financial contracts only in a limited way, or
  - offers financial contracts in a way that is likely to be unacceptable
  - for the purpose of substantially lessening competition in any electricity market. (***Electricity financial contract liquidity prohibition***)
- Section 153G provides that an electricity business engages in prohibited conduct if it bids or fail to bid in the electricity spot market in a way that is fraudulent, dishonest or in bad faith **or** for the purpose of distorting or manipulating prices in the spot market. (***Electricity spot market prohibition (base case)***).
- Section 153H provides that an electricity business engages in prohibited conduct if it bids or fail to bid in the electricity spot market in a way that is fraudulent, dishonest or in bad faith **and** for the purpose of distorting or manipulating prices in the spot market. (***Electricity spot market prohibition (aggravated case)***).

The Explanatory Memorandum[3] accompanying the Bill provides commentary and stylised examples of scenarios where the proposed prohibitions may and may not apply.

This section discusses the proposed prohibitions in turn, with both forms of the spot market prohibition discussed in the same sub-section.

[2] *Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill* 2018.

[3] *Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill* 2018, Explanatory Memorandum.

2.2 Retail pricing prohibition

2.2.1 Apparent objective

The Explanatory Memorandum defines a retailer's 'underlying cost of procuring energy' as referring to elements of the retailer's 'cost stack', which includes wholesale (spot and/or contract) costs, network charges and environmental cost.[4] Retail costs and margins are not considered part of the underlying cost of supplying electricity, so efficiencies or reductions in those costs do not need to be passed-on. For vertically-integrated generator-retailers ('gentailers'), wholesale energy costs may refer to 'opportunity costs' (such as the price that the wholesale energy could have achieved in the contract market) rather than the internal transfer prices adopted by the business (which may be different).

Regarding the magnitude and duration of underlying cost reductions that are to be regarded as 'sustained and substantial', this will depend in part on the characteristics of the contract the customer is on, as well as all surrounding circumstances. However, the Explanatory Memorandum states that, "[a] change in underlying costs that lasted a week or a month would be unlikely to be considered sustained." The Explanatory Memorandum also indicates that a 20 percent fall in wholesale energy costs would be regarded as sufficiently substantial to warrant being passed-through to customers. Finally, the timing of tariff reductions also needs to be reasonable having regard to the circumstances.

The Explanatory Memorandum provides a series of examples outlining the type of conduct that might and might not contravene the retail pricing prohibition. Confusingly, one example suggests that retailers would contravene the prohibition by engaging in price discrimination (which may occur even in a highly-competitive market),[5] whereas another example offers reassurance that setting retail tariffs in a manner that fails to fully 'mark-to-market' its wholesale hedging contracts (behaviour that is *not consistent* with a highly-competitive market) would not contravene the law.[6]

2.2.2 Potential sanctions

In relation to all three proposed prohibitions, the draft legislation provides for the Australian Competition and Consumer Commission (ACCC) to take one or more of a range of 'graduated' responses if it reasonably believes an electricity business has engaged or is engaging in prohibited conduct. These responses are:

- Issue a public warning notice – a purely 'naming-and-shaming'-style of remedy
- Issue an infringement notice – in respect of a given alleged contravention, which imposes a fine of 600 penalty units (presently, $126,000), the payment of which prevents the Commonwealth from taking further action
- Accept a court-enforceable undertaking from the relevant business
- Apply to a court for an injunction, and
- Apply to a court for a pecuniary penalty of a maximum value of the higher of:
  - $10,000,000
  - 3 times the benefit obtained (if the court can determine the benefit), and

4 Explanatory Memorandum, paras 2.25-2.30.

5 Example 2.5, para 2.41.

6 Example 2.7, para 2.42.

  - 10% of the business's turnover in the last 12 months (if the court cannot determine the benefit obtained).

2.3 Electricity financial contract liquidity prohibition

2.3.1 Apparent objective

The Explanatory Memorandum explains the rationale for the electricity financial contract liquidity prohibition as seeking to ensure that "generators, including gentailers, do not unreasonably refuse to offer financial contracts for anti-competitive purposes." It comments that the availability of financial contracts is critical to managing wholesale pricing risk, and firms need a way of effectively managing this risk in order to compete in the retail market. This prohibition appears to be targeted at the concern that a gentailer could "potentially use its position to restrict the availability of electricity financial contracts for the purpose of substantially lessening competition."

The Explanatory Memorandum makes clear that a refusal to supply contracts is to be construed from a practical commercial perspective, such that:

- Generators are not expected to exit from any existing contractual commitments and gentailers are able to continue meeting their own 'genuine' risk-management needs
- Generators whose output is not reliable – in particular, intermittent generators such as wind – are not expected to offer financially-firm contracts, and
- Constructive refusal to supply contracts – such as by offering contracts on highly uncommercial terms – can constitute a contravention.

Unfortunately, no guidance is provided on how high generators could set prices in contracts before doing so would constitute a constructive refusal.

Finally, the conduct must be motivated by the purpose of substantially lessening competition in a market within the meaning of Part 4 of the CCA, where:

- 'Purpose' may be inferred from actual or likely effect, as well as the surrounding circumstances, and
- 'Market' is defined as either a retail market, a wholesale spot market or a wholesale contract market.

The Explanatory Memorandum provides only one example of behaviour that would likely contravene this prohibition.[7] However, the conduct referred to in that example reflects behaviour that would likely already be proscribed under section 46 of the CCA.

2.3.2 Potential sanctions

As with the retail pricing prohibition, the ACCC is able to invoke one or more of a range of graduated responses if it reasonably believes an electricity business has engaged or is engaging in prohibited conduct.

In addition, the ACCC is able to make a 'prohibited conduct recommendation' to the Federal Treasurer if the ACCC reasonably believes that the carrying out of the recommendation would be a proportionate means of preventing the business from engaging in the conduct. For the electricity financial contract liquidity prohibition, the recommendation may involve the Treasurer making a 'contracting order', which obliges the business to offer financial contracts for a particular period in respect of a particular:

[7] Example 2.13, para 2.93.

- Kind of financial contracts
- Price or ranges of prices or methodologies for ascertaining prices of contracts, and/or
- Quantity (in MWh) of electricity contracts.

Prior to making such a recommendation, the ACCC must first notify the business of the recommendations it could make to the Treasurer. After 45 days, the ACCC must either give the Treasurer a prohibited notice recommendation or a 'no Treasurer action' notice if the ACCC believes that implementing the recommendation would not be appropriate.

After receiving a prohibited conduct recommendation from the ACCC, the Treasurer may make a contracting order 'of a kind stated in the recommendation' if he or she is satisfied that conduct identified in the ACCC's recommendation is a contravention of the electricity financial contract liquidity prohibition and making the order would be a proportionate means of preventing the business from engaging in the conduct. However, there does not appear to be any requirement for the Treasurer's order to precisely reflect the ACCC's recommended order. In making an order in respect of a particular electricity business, the Treasurer must have regard to a number of matters, including the business's total generation capacity, the nature and location of its assets, the commitments the business has to supply customers and any other relevant matter. Following the making of an order, if the ACCC believes that the business has failed to comply with the order, the ACCC may apply to a court to order compliance with the order. Importantly, the court's decision under the draft legislation relates only to whether the business has failed to comply with the Treasurer's order – not whether the Treasurer's order was warranted.

2.4 Electricity spot market prohibition

2.4.1 Apparent objective

Both the 'basic' and the 'aggravated' forms of the spot market prohibition have two elements:

- First, they can concern any aspect of bidding – or not bidding or offering to supply – electricity into the wholesale spot market.
- Second, they must involve a proscribed purpose, which has a single limb in the basic case (fraudulent, dishonest or bad faith behaviour) and two limbs in the aggravated case (as above plus having the purpose of 'distorting or manipulating' prices).

Whether a firm acts fraudulently, dishonestly or in bad faith is to be determined according to the standards of a reasonable and honest person, suggesting a higher standard of conduct than could be expected from simply a 'reasonable' or typical person in the community. In this context, bids and offers are regarded as representations, so any bid that a generator did not intend to honour at the time it was placed would likely constitute a contravention. This is actually a more lenient prohibition than is already contained in the NER against false or misleading bids and against deliberately late rebids.[8] This suggests that one purpose of creating this prohibition is to impose more serious sanctions (see below) for breaches of the NER than are already in place.

The second half of the proscribed purpose (engaging in conduct with the intent of 'distorting or manipulating prices') may have been inspired by the ACCC's recommendation in the REPI for the NEM to adopt the broad market manipulation prohibition from the National Gas Rules (NGR).[9] However, while the NGR does oblige participants to not act fraudulently, dishonestly or in bad faith and to not engage

[8] AEMC, *Bidding in Good Faith, Information Sheet*, 10 December 2015, available at: https://www.aemc.gov.au/rule-changes/bidding-in-good-faith. [Accessed 21 January 2019]

[9] ACCC REPI, section 4.2.2 and Recommendation 3, pp.96-98.

in conduct with the intent of distorting or manipulating prices, in relation to trading behaviour, the prohibition is targeted at:[10]

- Not submitting offers that:
  - The participant knows or ought to know it will not be able to perform
  - With the intention of defaulting on its performance
  - With the intention of creating a transaction with an associate (effectively trading with itself)
- Not intentionally or recklessly default on its obligations
- Not manipulating prices of products traded on the exchange.

Conversely, in the Federal Government's proposed prohibition, the meaning of 'distorting or manipulating prices' appears intended to refer to conduct that reflects an exercise of market power, which apparently means conduct that seeks to *cause* high prices but not necessarily conduct that *takes advantage* of high prices:[11]

> *2.93 The analysis of whether prices have been distorted or manipulated must distinguish between behaviour which seeks to* ***take advantage*** *of higher prices (which is permissible under the design of the spot market), and behaviour which seeks to* ***cause*** *higher prices through means that are not acceptable features of an electricity spot market.*

However, the Explanatory Memorandum goes on to endorse the occurrence of 'transitory market power' in the NEM, a concept first defined by Justice French in the original AGL-Loy Yang case.[12] The Explanatory Memorandum states:

> *2.96 Transitory market power can be an acceptable feature of an electricity spot market because it can create a signal for investors to invest in new generation when and where it is needed by the system. When investors observe transitory market power in action, they are more likely to invest to bring new generation into the market to take advantage of the opportunity, which then helps to drive prices back to reflect underlying costs.*

Unfortunately, the Explanatory Memorandum leaves unsaid whether *exercising* transitory market power (or exercising market power for a transitory period) is acceptable. 'Market power' must refer to the conduct of a firm operating in a market. Contrary to the suggestion made in Example 2.15, market power is not a natural phenomenon (like the wind blowing or sun shining). It makes no sense to state that transitory market power can be 'an acceptable feature' of the market without explaining how, when and who can exercise transient market power.

The ambiguity of this provision is highlighted by paragraphs 2.92, 2.94 and 2.98 of the Explanatory Memorandum, which respectively provide as follows:

> *2.92 Prices would not be considered distorted or manipulated merely because they are* ***changed*** *as a result of a corporation's behaviour. Generators may make many bids each day, and the fact that these bids alter spot prices is not of itself distortion or manipulation in the relevant sense.* [Emphasis in original]

[10] NGR, clauses 542-545.

[11] Explanatory Memorandum, para 2.93.

[12] *Australian Gas Light Company v ACCC (No 3)* [2003] FCA 1525 (19 December 2003), at para 453. See: http://www.australiancompetitionlaw.org/cases/agl.html.

> *2.94 Given the complexity of the market, it is not possible to exhaustively prescribe the conduct which will and will not have the purpose of distorting manipulating prices. This depends on the specific facts of the case.*
>
> *2.98 Generators are also able to undertake strategies to optimise their operation, which may also factor in to the price at which a generator bids in to the market, the amount of capacity they bid in, or a decision not to bid in on a particular occasion.*

At the same time, the Explanatory Memorandum indicates that the ultimate objective of the prohibition is for market prices to be "largely determined in the long term by underlying costs rather than the existence of market power".[13] However, there is no attempt to reconcile this comment with the more specific commentary highlighted above, or the examples provided – which predominantly refer to short- to medium-term generator bidding strategies and fail to make any reference to longer-term price outcomes or impacts.

Participants are left with a prohibition that provides no clear analytical guidance as to what kind of behaviour would be lawful and what would not be lawful. The examples provided in the Explanatory Memorandum only serve to confirm that pure price-taking behaviour by generators is lawful. They do not offer any guidance as to if or when the exercise of transitory market power may be acceptable, even though the Explanatory Memorandum notes that the prohibition is "not intended to interfere with behaviour which is genuine commercial behaviour as intended by the design of the electricity spot market" – which based on earlier statements appears to include transient market power.

Finally, the purpose of conduct can be objectively inferred from the surrounding circumstances. Example 2.18 shows that decisions such as undertaking discretionary maintenance on hot summer days will be presumed to be for a proscribed purpose.

2.4.2 Potential sanctions

As with the other prohibitions, the ACCC is able to invoke one or more of a range of graduated responses if it reasonably believes an electricity business has engaged or is engaging in prohibited conduct.

In addition, the ACCC is able to make a 'prohibited conduct recommendation' to the Federal Treasurer if the ACCC reasonably believes that the carrying out of the recommendation would be a proportionate means of preventing the business from engaging in the conduct. For the electricity spot market prohibition (aggravated case), the recommendation may involve the Treasurer applying to a court to make a 'divestiture order' if the ACCC reasonably believes that such an order would be likely to result in a benefit or a net benefit to the public. If made by a court, a divestiture order could require the business to dispose of interests in securities or assets to an unrelated or genuinely competing business (except in the case of a state-owned business). The order would need to specify the:

- Interests or kinds of interests to be disposed
- Day by which the disposal must be made, and
- Any other matter the court considers necessary for the order to be effective.

Prior to making such a recommendation, the ACCC must first notify the business of the recommendations it could make to the Treasurer. After 45 days, the ACCC must either give the Treasurer a prohibited notice recommendation or a 'no Treasurer action' notice if the ACCC believes that implementing the recommendation would not be appropriate.

[13] Explanatory Memorandum, paras 2.89-2.90.

After receiving a prohibited conduct recommendation from the ACCC, the Treasurer may apply to the court for a divestiture order 'of a kind stated in the recommendation' if he or she is satisfied that conduct identified in the ACCC's recommendation is a contravention of the electricity spot market prohibition (aggravated case) and making the order would be a proportionate means of preventing the business from engaging in the conduct and would provide a benefit or net benefit to the public. However, there does not appear to be any requirement for the order applied for by the Treasurer to precisely reflect the ACCC's recommended order.

In deciding whether to make a divestiture order in respect of a particular electricity business, the court must be satisfied that the business has or is likely to engage in prohibited conduct and that the order would be a proportionate means of preventing the business from engaging in the conduct in the future. However, the court is not required to determine whether the making of an order would provide a benefit or net benefit to the public. This means that there is no independent assessment of whether divestiture is a net beneficial means of avoiding the purported harm. It may be that divestiture is an effective and proportionate means of preventing certain behaviour, but this is not the same as demonstrating that the purported harm is significant. This combined with the ambiguity of the prohibition means that the ACCC and the Treasurer could use this prohibition to achieve an outcome that the ACCC was unable to achieve under the CCA – such as, the separation of the former AGL and Macquarie Generation businesses. This will obviously have consequences for investor perceptions regarding sovereign risk and future investment incentives.

3 LIKELY EFFECTS

This section discusses the likely effects of the draft legislation in relation to each of the three proposed prohibitions. In each case, the precise conduct that would contravene the prohibition is unclear as the prohibitions are expressed in qualitative terms and have not (yet) been interpreted by either the ACCC or a court. Further, as explained in section 2, the Explanatory Memorandum provides very limited – and in some cases confusing - guidance as to the way in which the prohibitions are intended to be interpreted. This means that businesses will need to devote substantial managerial attention to second-guessing how the ACCC, Treasurer of the day and courts are likely to interpret a particular prohibition. At least with respect to the ACCC, businesses can look to the recent Retail Electricity Pricing Inquiry (REPI) report for some indication as to how the ACCC views electricity market competition; although a complicating factor is whether the ACCC may take a more interventionist stance after having been given the new responsibilities proposed under the draft legislation. In any case, anticipating how governments and courts will react to certain behaviours is an even more difficult exercise than anticipating how the ACCC could respond. In general, risk-averse businesses – who are even more likely in the current political climate to be concerned about adverse publicity – are likely to interpret the prohibitions widely, leading to perverse incentives and outcomes.

For each prohibition, we discuss the likely effects on both operating behaviour and investment (as well as entry and exit) decisions.

3.1 Retail pricing prohibition

3.1.1 Operating behaviour

The proposed prohibition will ensure retailers face the constant threat of regulation. The danger to the retailer is the regulator will set – or expect to see – prices below retailers' reasonable costs. Presently, retailers try and smooth prices out for customers over time, rather than changing prices up and down with the volatile cycle of the wholesale market (which is becoming more volatile as the power system continues to deteriorate).

This price-smoothing function that retailers provide customers means there are times where margins are very small and at other times they rise. In any case, given the highly competitive nature of the retail market, excessive retail margins are not sustained. The danger to retailers is that a regulator intervenes in the price cycle when it is unfavourable to retailers and sets a low margin, meaning that the average margin over time is lower than is commercially sustainable. Retailers then face the risk that they cannot sign contracts with customers that are mutually beneficial to both parties because of actual or the threat of intervention.

In response, retailers are likely to shorten the duration of the retail contracts they sign with customers. In this way, retailers are more likely to be able to demonstrate that their prices are consistent within costs and returns within the (short) contract period.

The consequence of this response is that customer prices will be much more volatile than they used to be. While some customers may prefer a price more closely reflecting prevailing market conditions because they can manage their demand, most customers will find this increased volatility annoying and difficult to manage within fixed household budgets. Businesses that need longer term price certainty, so they can manage their production processes, pricing and investment will find this industry response to regulatory threat hard to manage.

3.1.2 Investment, entry and exit

To the extent that average retail margins fall due to the retail pricing prohibition, this is most likely to harm smaller and new entrant retailers, who lack a cohort of disengaged customers that pay higher average tariffs.[14] To the extent that smaller retailers exit the market and/or new retailers do not enter, retail markets will become less competitive and average margins and tariffs could rise until new entry once again becomes attractive. The result may be retail tariffs that are no lower, or possibly higher, than they are presently.

Even if average retail margins do not change, existing and potential entrant retailers will face greater risk regarding their operating profits. Immediately after a substantial reduction in input costs, they may feel obliged to lower tariffs more than proportionately, thereby incurring operating losses. However, they may be able to make sufficient operating profits at other times. But increased riskiness of making a 'normal' (competitive) level of operating profits may in itself deter entry and cause average retail margins to be higher than they are now.

3.2 Electricity financial contract liquidity prohibition

3.2.1 Operating behaviour

As noted in section 2.3.1, the apparent rationale for the electricity financial contract liquidity prohibition is to ensure that generators (particularly gentailers), "do not unreasonably refuse to offer financial contracts for anti-competitive purposes." In fact, only gentailers (or standalone generators intending to enter retailing) could have an interest in stifling retail competition. However, section 5.4.3 of the ACCC REPI found that:[15]

> *ACCC analysis of internal documents from vertically integrated businesses suggest that these businesses set their transfer prices on an 'opportunity cost' basis. This means that the retail arms of these businesses are receiving wholesale electricity at a price comparable to a standalone retailer.*
>
> *ACCC analysis of transfer price data from vertically integrated businesses broadly supports the opportunity cost approach, with most transfer prices set at a premium above ASX contract markets that is comparable to the premium on 'all-in-one' hedging products such as load-following hedges.*

While the ACCC continued to express its long-standing suspicion in the REPI that vertical mergers and vertical integration in the NEM more generally was anti-competitive, it did not identify evidence of a systemic bias by gentailers against standalone generators through the contract prices being offered by gentailers.

This suggests that at least outside South Australia (where the REPI recommended large gentailers – presumably focussing on AGL and possibly Origin and Engie-Simply Energy – face hedge market-making obligations), gentailers probably do not face immediate substantial risks from this proposed prohibition. However, this could change rapidly if the ACCC indicated that it developed a different understanding of NEM contracting behaviour in the future.

14 See ACCC REPI, Figure 1.26, p.28.

15 p.128.

Nevertheless, at the very least, risk-averse generator (especially gentailer) participants are likely to respond by altering the way they contract with customers to manage the risk of regulation, thereby exposing consumers more directly to the market's price volatility.

For example, generators may:

- Be less inclined to offer counterparties load-following contracts, which tend to:
  - Reduce generators' ability to offer flat swap contracts – a highly visible measure of apparent contracting willingness that the ACCC could focus on, and
  - Be higher-priced than swaps, due to the positive correlation between most individual customers' demand and wholesale spot prices – another highly visible indicator that could attract ACCC attention.
- Shorten the term or reduce the volume (in MWh) of contracts offered to counterparties – to help ensure that the generator always had some contracts available for sale, to help avoid attracting ACCC attention for appearing to be absent from the contract market and minimise the risk of intervention.

3.2.2 Investment, entry and exit

In light of the lack of an immediate basis for concerns about intervention in response to the electricity financial contract liquidity prohibition, the likely effect on generation entry and investment is likely to be more limited than the effect of the spot market prohibition (see below), at least outside of South Australia. In South Australia, any investor in new scheduled (or 'dispatchable') generation is likely to be concerned that the ACCC will oblige them to offer a certain volume of contracts – potentially going beyond risk limits – at lower prices than they otherwise would having regard to market conditions. This risk will initially be lower in other NEM regions but will remain uncertain.

However, in both cases, prospective investors will tend to assume that there is a significant risk that the ACCC and government will face a strong temptation to intervene to effectively regulate contracting quantities and/or cap contract prices. In particular, given the highly cyclical nature of energy-only market prices, investors will be concerned that during periods of relative supply shortages of wholesale electricity – when investors typically earn the bulk of the lifetime fixed costs – intervention in the contract market will limit operating profits and undermine the original business case for investment. To this extent, investor will refrain from developing new dispatchable generation capacity without a discrete customer- or taxpayer-funded underwriting of plant capital and fixed costs (eg through a capacity mechanism). As shown by the Western Australian experience, capacity mechanisms have their own problems and are unlikely to offer a lower-cost means of ensuring sufficient generation capacity than an energy-only market.

3.3 Electricity spot market prohibition

3.3.1 Operating behaviour

As noted above, electricity businesses are likely to interpret the prohibitions widely. This is particularly the case for the electricity spot market prohibition, which is extremely ambiguous.

Based on the examples provided in the Explanatory Memorandum, this prohibition may encourage electricity generators to avoid making sudden changes to their bidding or operating decisions that could attract ACCC attention, such as rebidding output into higher price bands or rebidding output as unavailable. However, it may lead to more 'passive' forms of behaviour that could have similar effects, such as consistently bidding output at higher prices than previously, or consistently offering a smaller share of plant capacity into the market.

The ACCC referred to the former type of behaviour by New South Wales and Queensland coal-fired power stations in the REPI,[16] but did not make any recommendations specifically targeted at that behaviour.[17] That was principally because the ACCC found that:[18]

> *…the key cause of higher wholesale prices is less related to discrete instances of market power being used to spike the price and more driven by a subtle and sustained 'lift' in prices that can be attributed in part to a lack of competitive constraint. That change in bidding behaviour, especially given it has been adopted by more than one player in the market at the same time, is not readily addressed by the types of mechanism identified by HoustonKemp. The ACCC is also concerned that many of the options identified are likely to be a disincentive to new investment in generation by existing market participants.*

Even if the ACCC had been minded to impose bid capping-type measures, establishing whether generator bids at a certain price reflect a price-taking or a non-price-taking response is a highly laborious and subjective exercise. As noted in the Explanatory Memorandum, generator bidding at certain prices or levels of output may reflect a competitive response to start-up or cycling costs (Example 2.16) or fuel conservation (Example 2.17).

Nevertheless, to the extent that investors in existing and potential new generators are inhibited from bidding or operating as they otherwise would, this could have implications for longer-term plant maintenance and investment decisions (see below).

3.3.2 Investment, entry and exit

Any legislative or regulatory interventions that are perceived to impose a risk of reducing operating profits to generators will tend to reduce incentives to invest in new or refurbished generation capacity. As noted by the ACCC in the REPI and cited above, intrusive bidding rules can deter new investment.

For generators whose operating profits are not (or, to the extent they are not) dependent wholesale market outcomes, such interventions are likely to have little effect. For example, if renewable generators are developed in response to a complementary mix of wholesale market outcomes and customer- or taxpayer-funded subsidies such as renewable energy targets, government power purchasing agreements or contracts for differences, these generators' investment decisions will not be affected. However, other plant technologies whose developers' returns do depend in whole or part on wholesale market outcomes will tend to be deterred as a consequence of government interventions fundamentally driven by a desire to lower wholesale prices.

Our December report for the AEC discussed the theoretical underpinnings of the NEM's energy-only market design.[19] In an energy-only market, operating profits made (or expected to be made) during periods of relatively scarce supply help fund generators' substantial fixed and sunk costs. For a given profile and elasticity of forecast electricity demand and a given level of network capacity and availability, and assuming relatively free entry into generation investment, more limited price spikes will require an increase in the market price capacity (MPC) to maintain the NEM reliability standard of 0.002% energy

[16] Section 3.2, pp.66-75.

[17] Instead, the ACCC recommended structural measures, such as the 20% market share acquisition cap (Recommendation 1) and re-disaggregation by the Queensland Government of its generation portfolio (Recommendation 2).

[18] p.96.

[19] Frontier Economics, *NEM structure in light of technology and policy changes*, 13 December 2018, Appendix A, available at Weblink: https://www.energycouncil.com.au/reports/. [Accessed 23 January 2019]

unserved. If the MPC is not increased to reflect more restrained bidding behaviour, consumers could bear higher levels of unserved energy (USE) and more frequent load-shedding or 'blackouts'.

Operating profits made or expected to be made during periods of relatively scarce supply fund not only new investment in generation, but refurbishment and fixed[20] repair and maintenance costs that are needed to keep existing generators running. In this way, lower wholesale prices and generator operating profits can result in existing plant retiring sooner than they would otherwise.

For example, we understand that the high costs of boiler repairs ordered by Worksafe Victoria was one of the key reasons that caused owner, Engie, to decide to retire the Hazelwood power station in 2016/17. According to reports from ABC News:[21]

> *The company estimates it would cost at least $400 million to completely revamp the power station which is not economically viable.*

The existing fleet of coal fired generation across the NEM is aging. If at the same time they come under increased pressure because they are being asked to do even more work following the closure of power stations like Northern and Hazelwood, and if their production profiles become less stable and harder to manage with the entry of more intermittent renewable generators, it is not hard to imagine that the costs of keeping these generators serving consumers will rise. While every one of these power stations has to face serious decisions every time they are required to undertake major planned maintenance, some of these plant will find it increasingly difficult to justify the vast and increasing expense of these scheduled maintenance obligations when the government is implementing policies that undermine the payoff for making reliable capacity available. With the proposed 'big stick' legislation, it is will be far more likely that aged power stations will, like Hazelwood, decide to avoid the expense and risk of any major maintenance and instead close the station. As we have already seen, the cost to the community from these closures will be vast and widespread. The exit of large thermal power stations in the NEM in recent years has been followed by substantial and sustained prices rises.

The closure of another baseload coal generator would occur in the context of much tighter market conditions than did the closure of both Northern and Hazelwood, and in an environment reflecting the confidence-sapping power of the Federal Government's big stick interventions. This would mean that customers face even less prospect of a new entrant making an investment to take advantage of the price rises. Accordingly, it is likely that wholesale prices would rise very significantly following such an exit.

It is likely the present government – if its legislation is passed by Parliament – would respond to an announcement of an impending closure by threatening the owner with forced divestment of that facility in the hope that a new owner will keep the power station operating. Given that maintenance is an expense that could be avoided, if the present owner could not justify the expense of keeping the plant operating then it is hard to see how anybody else would be able to justify making a different decision, even if they received the plant for no consideration. This means that forced divestment in these circumstances would not yield a different result, but the threat of forced divestment will undermine any future new investments.

In circumstances where a large plant did exit the market, and fears of intervention inhibits an investment response, wholesale and retail prices will likely see a material increase in prices compared to prices where the plant remains. Given the extent of the price rises following the closure of a large plant, it is almost certain that the government would be pressured into implementing its big stick controls. Industry

[20] 'Fixed' referring to fixed with respect to half-hourly electricity output.

[21] See Weblink: https://www.abc.net.au/news/2016-12-01/worksafe-notices-detail-extent-of-repairs-needed-at-hazelwood/8082318 [accessed 21 January 2019].

would therefore expect the big stick controls to lower prices and this will undermine the incentive for industry to respond with a new investment, which means that the required new investment will not proceed unless it is sponsored/paid for by government. Indeed, under these circumstances market participant will be unable to predict market outcomes, and this will make it very difficult for them to make sensible production, investment and pricing decisions. No doubt the resulting paralysis would then result in further negative outcomes for consumers, which would give rise to more intervention, and so on.

In our view, the Federal Government's proposed prohibitions are a strong signal to investors that the government is willing to make regulatory and legislative interventions in the hitherto independent, rules-based NEM that may strand the recovery of past investments. This, in turn, will destroy incentives for the private sector to invest – importantly including potential deferral or cancelling of investments in new baseload plant to replace ageing generation assets due to be retired in the coming years. The resulting concentration of the wholesale market would, in turn, result in higher prices for consumers. In other words, the Government's attempt to introduce greater competition in the market through divestment rules will, perversely, result in less competition and worse consumer outcomes.

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4 PLACE WITHIN THE BROADER CONTEXT

In our view, the proposed prohibitions will only add to the uncertain and frequently hostile environment facing investors in energy infrastructure in Australia today. It is often forgotten that investors are not an alien species, but simply agents – like the rest of us in our economic lives – who are driven to respond to the financial incentives created by government policies (or vacuums) and the political incentives fomented by government rhetoric. In this sense, the behaviour of investors effectively holds a mirror up to governments, reflecting back an unbiased picture of their policy-making successes and failures.

When the jurisdictions embarked on energy reforms under the auspices of national competition policy in the 1990s, they shared an understanding that while governments would be responsible for devising key policy settings and regulating monopoly infrastructure, asset operation and investment decisions would be left to businesses and consumers as they are in other sectors. This led to a successful transition from an historical electricity generation mix skewed towards coal-fired baseload capacity towards a mix of plant fuels and technologies better-suited to our 'peakier' 21st century requirements. Whenever government policies changed, the market responded as logic would suggest. For example, when state governments reacted to distribution network outages by boosting reliability standards and regulatory rates of return in the mid-2000s, investors poured resources into upgrading poles and wires. When the Commonwealth and State governments offered irresistible subsidies for installing solar panels and windfarms, households and businesses delivered uptakes at a pace few predicted. When consumers and taxpayers began paying the price for these activist policies and governments backtracked, investors again quickly obliged by rapidly putting the brake on spending.

While not necessarily reflecting best-practice, many of these changes in policy settings were made in good faith and subject to reasonable grandfathering arrangements. In particular, existing investments in electricity networks and solar PV were at least partly shielded from the more stringent regulatory and subsidy regimes greeting new investments. Similarly, owners of coal-fired generators received a measure of financial compensation for the imposition of a carbon tax.

Unfortunately, in more recent times, politicians have frequently taken the populist path of demonising energy businesses instead of taking responsibility for their own policy failings. The greatest of these failures has been the unwillingness or inability of the Commonwealth government to institute a credible path to meeting its own emissions abatement commitments. This policy vacuum has encouraged jurisdictional governments to expand their renewable energy programs, which have both undermined the prospects of an efficient transition to a low-emissions future as well as raised unprecedented new concerns over system security.

Rather than redoubling their efforts to achieve policy coherence, governments have chosen to the make energy businesses their scapegoat. For example, the Commonwealth Government has:

- Attacked coal-seam gas producers for selling gas to higher-valued overseas markets rather than selling gas at a lower price domestically.
- Pilloried electricity generators for setting higher prices in the face of large and unexpected reductions in supplies – as would be expected in other markets under the same conditions, such as bananas following a cyclone.
- Accused energy retailers of price gouging because they have been passing on their higher energy purchase costs, resulting from poor government policy, to customers.

- Vilified electricity networks for challenging the dubious basis of the AER's regulatory determinations in court and winning.

Emboldened by the positive public response to the government's scapegoating of energy investors the Federal government has developed a highly interventionist stance:

> *"My message to the retailers is unless they get prices down and they pick up their act, you will see more intervention because that is what the public will demand of their political leaders," Mr Frydenberg told ABC Radio National.*[22]

The government has intervened by:

- Establishing the Australian Domestic Gas Security Mechanism (ADGSM), which permits a government minister to decide whether a gas shortfall exists, and if so, to oblige LNG producers to limit their exports or find new gas sources to supply domestic demand.[23] Importantly, both the ADGSM and the proposed prohibitions discussed in this report apply to energy investments whose costs have already been incurred years or even decades ago.
- Establishing new market rules that force energy retailers to inform customers if there are cheaper deals available, an obligation that is not imposed on any other activity in Australia.
- Drafting new legislation that bypasses the NEM rule making process that was put in place to give investors the confidence that the politicians could not change the rules to respond to the politics of the day. In the future, energy ministers will be able to instruct the Energy Security Board to make rulings that fundamentally change the market without going through the rule change process. This means that the basis of price settings and market operations will now be exposed to the political whims of the minister.
- Abolishing the network businesses' right to challenge the economic merits of the AER's regulatory determinations.
- Drafting new legislation to extinguish the rights of anybody to judicially challenge the AER's rate of return decisions, a move never seen before in Australian law.

While these interventions may play out well in public now all of these actions present potent risks for investors. Collectively, these interventions create a diabolical investment environment that can only result in taxpayers or consumers being forced to fund or underwrite the risks of new infrastructure. After the legacy of mismanagement and debt left to Australian pre electricity reform era, this will represent a most retrograde outcome.

22 The Australian (2018), *Josh Frydenburg issues blunt warning to energy retailers*, June 15, Weblink: https://www.theaustralian.com.au/national-affairs/josh-frydenberg-issues-blunt-warning-to-energy-retailers/news-story/a78e962fc829d317893979e1b71df0d6 [Accessed 23 January 2019]

23 See Weblink: https://www.industry.gov.au/regulation-and-standards/regulating-australian-resource-projects/australian-domestic-gas-security-mechanism [accessed 21 January 2019].

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