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FOR A BETTER WORLD

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13th February 2015

Attention:

Mr John Pierce
Dr Brian Spalding
Mr Neville Henderson

Australian Energy Markets Commission

Level 6, 201 Elizabeth Street

Sydney NSW 2000

Lodgment via: AEMC Web page

REF CODE: ERC0166

Dear Commissioners,

Re: Rule Change Proposal – Bidding in Good Faith – AEMC Options Paper

Please find attached Visy Industries Australia's submission in response to the AEMC's Options Paper on good faith bidding in the National Electricity Market.

Sincerely,

R. deSousa

(Royce DeSousa)

General Manager – Energy & Sustainability, Visy

Introduction

Visy is pleased to make a submission in relation to the Australian Energy Markets Commission's (AEMC's) Option Paper on Good Faith Bidding in the National Electricity Market (NEM).

Visy notes the South Australian Government's (SA Govt's) rule change proposal which focused on refining the good faith provisions as a means to target bidding behaviour of questionable intent.

The AEMC, in its review of the rule change request and resulting options paper has highlighted "late strategic rebidding" as a key target of the SA Govt's concerns. Visy agrees with the observations of others reporting to the AEMC on this matter that late strategic rebidding has been occurring in Queensland and South Australia over the past 2 years. Visy has certainly observed regular extreme price events exacted on the Queensland market in recent years and as recently as January 2015 in ways which provide a strong disincentive, rather than incentive, for new entrants to respond.

Our concern is that there is every possibility that similar conduct continues in Queensland and equally that it could occur in other regions in the future, given the right supply, demand and infrastructure circumstances, while the rules governing the NEM remain the same.

Visy agrees with the underlying premise of the SA Govt's rule change request and supports a change to behavioural statement of conduct in the National Electricity Rules (NER). However, Visy believes that it is not always a simple task to be able to clearly identify a lack of bona fides in bidding behaviour because intent is not always simple to identify and prove. Therefore Visy believes that, as the most prevalent and damaging bidding behaviour occurring in recent years, late strategic rebidding should be addressed with a clear and effective structural change as the key priority for NER reform in the context of the SA Govt's concerns. Specifically, a "gate closure" approach to rebidding with some important caveats and exceptions is strongly recommended by Visy.

Having said that, a comprehensive and effective approach to tackle bidding behaviour which is not bona fide in general terms requires a clear behavioural statement of conduct to be a feature of the market, as it has clearly been in many wholesale markets around the world, borne out in CEG's report for the AEMC.

To be clear, Visy recognises the right of profit-making enterprises to adopt bidding strategies that will maximise profits and Visy also acknowledges that a properly functioning market need not deliver efficient outcomes in every single dispatch interval. However, there are serious questions about late strategic bidding and other potentially anti-competitive conduct which is highly damaging to competition in the NEM coupled with the impacts felt by the full breadth of the electricity-consuming sector and the Australian economy – industry, commerce and households.

Conduct other than Late Strategic Rebidding by Market Participants

While Visy firmly believes that late strategic rebidding must be addressed through restrictions on rebidding, Visy remains concerned by other forms of generator conduct which also have had or have the potential to have strongly anti-competitive effects in the wholesale electricity market.

Ramp rate bidding

Generators have significant potential to influence market outcomes by controlling the rate at which they ramp up and ramp down their generation in response to dispatch instructions from AEMO.

The Australian Energy Regulator (AER) rightly recognised in their recent rule change request that the current very generously low mandatory minimum ramp rate set in the NEL allows some generators to wield significant market power to drive potentially aberrant market outcomes, including extreme prices.

Unfortunately to date, no meaningful change to current ramp rate provisions in the NER has been brought about – this is disappointing to Visy as ramp rate control by some generators across a number of regions represents another form of bidding behaviour which is potentially not in good faith which has certainly brought about highly inefficient market outcomes.

Economic withholding of capacity by dominant generators

While ramp rate bidding and late strategic rebidding are forms of "micro-trading" behaviour – behaviour which occurs over very short timeframes, for example minutes, Visy has concern with other forms of behaviour in the physical market which it calls "macro-trading" behaviour – conduct over longer periods of time, for example over weeks, months or longer.

An example of macro-trading behaviour is long-term economic withholding of capacity such as the mothballing or indefinite planned outage of individual generating units (for reasons other than technical reasons). While it is entirely the prerogative of a profit-making enterprise to withhold capacity for its own reasons, Visy's concern is that this form of macro-trading behaviour exercised by dominant generators – that is, generators who have significant market power – when exercised in concert with a form of micro-trading behaviour such as late strategic rebidding can exact very extreme and damaging impacts on the market. Late strategic rebidding may occur on a "micro" scale in a temporal sense but due to the NEM's extremely high market price cap, almost unparalleled in markets internationally, it does not take many price spikes for such a strategy to be successful.

Further, there has been an unabated trend to increasing integration in the NEM, both horizontal and vertical – larger, more powerful entities will be become increasingly able to deploy this "hybrid macro/micro" bidding strategy with damaging consequences for market efficiency and costs for consumers.

Visy does not by any means propose to prohibit the economic withholding of capacity per se but believes that, in addition to specific reforms addressing the phenomenon of late strategic rebidding and broader reforms as to behavioural conduct through amendments to the good faith bidding provisions, refinements to broader Australian competition law are also critical to tackle "hybrid behaviour" such as late strategic rebidding underpinned by longer term economic capacity withholding.

The Phenomenon of Late Strategic Rebidding

Is it occurring?

There would appear to be consensus that late strategic rebidding has been occurring in the NEM most notably in the past two years in Queensland and in South Australia – this is borne out in the AEMC's Option Paper[1] with reference to the reports of ROAM Consulting and Oakley Greenwood to the AEMC and also in data provided to the AEMC by market operator AEMO and market regulator AER.

Visy also provided data in its original submission to the AEMC on the SA Govt's rule change request in May 2014 on market price outcomes in QLD since January 2013. These are presented again for convenience here – see Table 1 below.

Qld "4, 5 digit" Spot Price - Dispatch Interval distribution: Jan-13 TO Apr-14

Spot range		Dispatch Interval						Sum	6th DI
$/MWh		1	2	3	4	5	6		% of all DIs
$1,000	$3,000	27	19	17	25	24	44	156	28%
$3,000	$5,000	-	2	-	-	1	1	4	25%
$5,000	$7,000	2	1	1	1	1	3	9	33%
$7,000	$9,000	5	2	2	2	3	3	17	18%
$9,000	$11,000	-	-	1	1	1	6	9	67%
$11,000	+	7	3	5	4	14	22	55	40%
Total		41	27	26	33	44	79	250	32%
DI % of all DIs (Total)		16%	11%	10%	13%	18%	32%		

Table 1

As highlighted in Visy's May-14[2] submission, the 6th Dispatch Interval is highly over-represented in terms of 'extreme price outcomes' (prices > $1,000/MWh) – the data is statistically significant noting 250 extreme price events in the data set spanning the 6 DIs. Note that proportionally, the 6th DI represents 32% of all extreme price events – a severe skewing of outcomes towards "late" rather than "early" rebids

A probabilistically even outcome would have been 17% for each DI (ie probability of 1/6th).

Since Visy's May-14 submission, the over-representation of the 6th DI has not materially changed. The data set in Table 2 below also commences January 2013 but extends to the end of January 2015 (it is effectively current to the time of this submission).

[1] AEMC Bidding in Good Faith Options Paper December 2014 – p15

[2] *Bidding in Good Faith – SA Govt Rule Change Proposal – Visy Submission to AEMC 22-May-14 (AEMC website)*

Qld "4, 5 digit" Spot Price - Dispatch Interval distribution: Jan-13 TO Jan-15

Spot range		Dispatch Interval						Sum	6th DI
$/MWh		1	2	3	4	5	6		% of all DIs
$1,000	$3,000	29	23	19	25	28	53	177	30%
$3,000	$5,000	-	2	-	-	1	1	4	25%
$5,000	$7,000	4	2	3	2	4	8	23	35%
$7,000	$9,000	5	2	2	2	3	3	17	18%
$9,000	$11,000	1	-	2	2	2	8	15	53%
$11,000	+	20	13	15	15	33	56	152	37%
Total		59	42	41	46	71	129	388	33%
DI % of all DIs (Total)		15%	11%	11%	12%	18%	33%		

Table 2

Table 2 above demonstrates that late strategic bidding in QLD has not abated with 6th DI representation slightly higher now than in April 2014, at 33%.

Characteristics of late strategic rebidding events

As is evident from the data above, a disproportionately large number of extreme prices are linked to very late rebidding. These events are also evidently not abnormal nor rare.

Additionally, these events tend to last typically only for one dispatch interval – pricing tends to revert to more typical levels after the relevant dispatch interval.

Where are the impacts felt?

As Visy highlighted in its May-14 submission, late rebidding leaves very few options for response from other market participants given the impact is at the very end of the Trading Interval horizon.

The effects of late rebidding are potentially severe for

a) generators other than those undertaking the late rebidding generally
b) retailers who are unable to respond with their own generation in time,
c) fast-start generators whose business model may normally depend on responding to high/extreme prices,
d) consumers who would normally undertake demand response to mitigate direct or indirect exposure to extreme price, and
e) consumers generally whether or not they take any spot price exposure

The impact of late rebidding on the response of other parties

As Visy highlighted in its May-14 submission, the major inefficiency caused by late rebidding is the prevention of response from (a) other viable and relatively low cost generation, and (b) demand side load management.

Visy noted that many forms of gas-fired and liquid fuel fast start generation may need between 10 and 30 minutes to respond appropriately to a price signal. Visy also explained that its own ability to respond with demand side management in its industrial manufacturing operations is typically between 15 to 30 minutes. Visy has also canvassed the views of other large energy consuming manufacturers and generally those consumers have the capability to safely and effectively respond within 10 to 30 minutes from the time of deciding to respond. Oakley Greenwood in its report to the AEMC noted feedback from industrials of potential response time of between 10 minutes and 2 hours.

While it is reasonable to expect that participants and users *make decisions* in response to market prices in essence immediately, it is simply not possible for an *effective response* to a market price to occur immediately in all instances.

In Visy's view, the effect of late strategic rebidding, irrespective of the intent, is to prevent a potentially large number of otherwise viable responses from other generators, retailers and consumers which responses could have resulted in more efficient dispatch and lower price – in essence a significant reduction in the number of parties able to respond to market conditions means the market settles less efficiently than it might otherwise have settled with more parties able to respond.

In commenting on the impact of late rebidding on market efficiency, the AEMC referred to the report made to it by Professor George Yarrow[3], noting:

> *"Rebids made very close to dispatch are likely to be less valuable to the process of efficient price discovery because they leave less time for the iterative process to play out."*

It went on to say:

> *"Late rebidding may prevent an efficient outcome as participants may still have an incentive to respond but do not have sufficient time to undertake the necessary rebid prior to the relevant dispatch interval occurring."*

Given the physical response time of credible fast start generation and demand side response canvassed above, a reasonable response time for these activities is likely to be 30 minutes – this timeframe allows credible well-managed facilities to respond but is also not an overly generous timeframe within which to expect participants to respond.

Why might late strategic rebidding be occurring – competitive response?

As highlighted above, rebidding very late in relevant trading intervals is certainly not explicable as a statistical anomaly because of the statistical significance of the data sets summarised in Tables 1 and 2 above. It is therefore at least possible to surmise that the statistically significant "late price spikes" are a direct consequence of a very deliberate strategy of certain generators to rebid late in the trading interval.

[3] AEMC Bidding in Good Faith Options Paper December 2014 – p15

Given that late rebidding is likely to prevent a range of other parties from responding to the late rebid, particularly those parties identified in (a) – (d) (see the section entitled *where are the impacts felt?* above), it's also possible to surmise that, at least in some instances, the intent of the generators undertaking these strategies maybe to "shut out" competition from those parties.

However, while the phenomenon of late rebidding seems clearly demonstrated by data, it may be somewhat more difficult to prove the intent of generators, as highlighted in the Introduction.

Why might late strategic rebidding be occurring - the "5-30" structure of the market?

Another possible reason for late rebidding which is restricted to one, or perhaps two, dispatch intervals is the so-called "5-30" character of the NEM, where the 30 minute trading interval price, which wholesale customers pay and generators are paid, is the *simple average* of each of the 6, 5 minute intervals falling within it for which generators receive their dispatch instructions – it's possible to say that payment in this fashion is not a true reflection of the generator's granular dispatch since the price it is paid for the whole trading interval is *not weighted* against its actual dispatch in each dispatch interval.

It maybe that generators may seek to maximise their revenues by taking advantage of the "5-30" nature of the market. One example, in addition to the explanation of the 5-30 phenomenon by the AEMC, is as follows. A generator is scheduled for relatively high dispatch at the beginning of the TI. Just prior to the last DI, it decides to move large portions of its bid volume from a low price band into an extremely high price band. If the generator wields significant market power due to the quantum of capacity it controls, the high price in the last DI may be set as a consequence of the generator's rebid. Even though the generators dispatch scheduled by AEMO in the last DI maybe considerably less due to having moved considerable volume into higher bands and dropping in the merit order, the extremely high price in the last DI will be weighted against the aggregate volume of the generator in the entire TI – the generator gets the benefit of the extreme price at the end of the TI and its high dispatch at the beginning of the TI notwithstanding the low dispatch at the end of the TI.

Irrespective of the intent of the generator, whether to actively limit competition or perhaps to take advantage of the 5-30 nature of the market, in Visy's view, the conduct is highly damaging to competition in the manner in which it has played out in the Queensland market in recent times, and for that reason, is objectionable.

It could be said that the 5-30 nature of the market might be changed however, that type of reform is likely to be a major alteration to the structure of the NEM and could bring with it too many unanticipated and unintended consequences to warrant strong consideration.

Lack of demand response in the market

As Oakley Greenwood concluded in their report to the AEMC, the conditions for demand response are very poor – this conclusion was due in large part to late strategic bidding and the inadequate response time for demand side response.

However, one other possible reason for a lack of demand response, given by Oakley Greenwood and AEMC, is the general lack of volatility in the market.

While Visy agrees that the Victorian and NSW markets are not generally volatile at present, the Queensland market most certainly is and the sole reason for Visy's lack of participation in the Queensland market is the nature of price bursts in that market linked to repeated late strategic rebidding – specifically,

a) the extreme lack of warning around when extreme prices will occur due to the prices not being forecast in pre-dispatch,
b) the frequent lack of correlation with genuine supply shortages, demand extremities or transmission relevant transmission constraints - this adds to the inability of a responder to anticipate the price spike, and
c) the extremely short duration of these events (5 minutes) means that
    - the duration of the extreme price DI are pale by comparison to time for ramp down and ramp up of the load (or generation), mitigating against a decision to respond, and
    - it becomes very costly for demand side (or fast start generation) to respond due to the significant fixed costs incurred in starting up and shutting down, mitigating against market efficiency.

In short, Visy believes that late strategic rebidding is the overwhelming reason for lack of industrial participation and not the lack of volatility which is evident in some regions at present.

Late Strategic Rebidding – is New Entrant response possible?

In any efficient market, when prices rise for whatever reason, new entrants can join the market if the price is high enough to justify their joining. It could be said that extreme price spikes for short period would normally be a price signal to fast start peaking generation.

However, the new entrant fast start generator must be sure that, having made its serious decision to invest in new power generation, it can dispatch its new generating units in sufficient time to take advantage of the price spike.

The extremely short duration of many of the price spikes seen in Queensland in the last two years (as highlighted earlier, many events lasting one DI or 5 minutes only) and the lack of warning that has typified these events (typically 0 – 5 minutes at best) is a strong disincentive for intending new entrants to go ahead with their investment decision – if they install their unit(s), they stand a strong chance of regularly "missing the boat" – running with the analogy, the boat would dock for extremely short periods and with no material warning of its arrival to intending passengers.

Separate to intending new entrant fast start generators, base-load generators may also be dissuaded from ever entering the market, particularly in the context of the long-term economic withholding of capacity by dominant generators referred to above – potential new entrant base-load generation maybe lured by high average spot prices (driven by price spikes) but they stand the risk of being squeezed out by encumbents who could readily re-instate capacity at short notice, bidding it into the market at lower prices than the new entrants, with significant fixed costs associated with financing their new asset, might be able to afford – an investor contemplating a new asset in such a market takes a big risk.

Financial / Secondary Market Impact of Late Strategic Bidding

Are hedge contract and derivative markets affected by late strategic bidding in the spot market?

While the impacts of late rebidding in the sport market maybe more or less obvious to spot-affected parties described in (a) to (d) of the section above entitled "*where are the impacts felt*", consumers generally are also ultimately impacted.

This is because the wholesale contract and hedge markets, which are ultimately derivatives of the spot market, are affected by spot market outcomes. Retailer pricing to retail customers is inevitably dictated by wholesale spot price or wholesale hedge contract and derivative prices, or both – in short, all customers, whatever size or shape they may take, and whether they are capable of responding to spot or not at all, are affected by extreme spot price outcomes.

In posing the possibility that hedge contract prices could be affected by late rebidding in spot markets, the AEMC sought data in submissions to their Options Paper.

The following charts demonstrate to Visy a clear linkage between contract prices (both fixed price "swap" contracts and $300/MWh cap contracts) and material high spot outcomes which precede the quoting of those contract prices.

Note that data underpinning these charts are based on (a) NEM spot price data collected by Visy from AEMO published data (b) swap contract pricing data sourced by Visy from publicly available data reported by the AER and (c) cap contract pricing data sourced by Visy from an independent expert in the electricity market. The contract price movements seen in these charts are consistent with movements seen by Visy in publicly available offer, bid and actual trade futures data, for example, on ASX Energy's public access website[4].

[4] https://asxenergy.com.au/futures

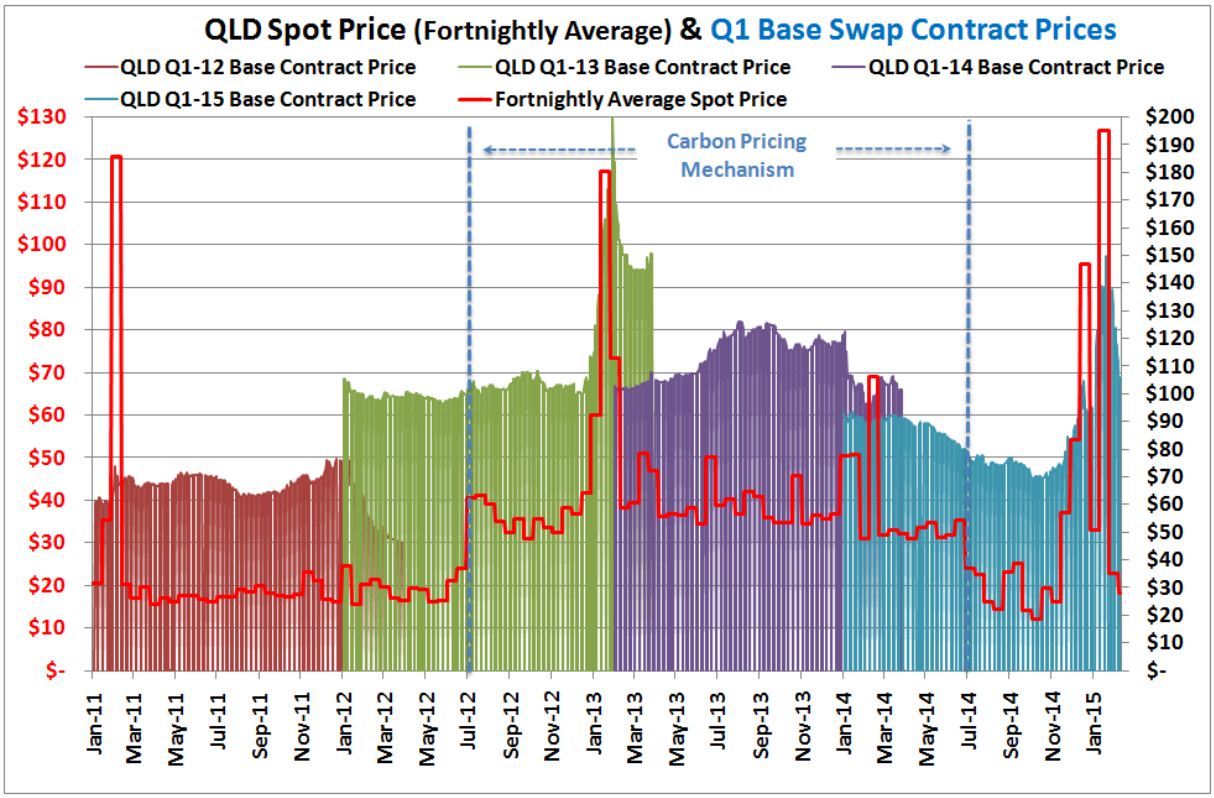

Chart 1

Chart 1 above shows the moving spot price for the QLD region of the NEM. The half-hourly prices have been averaged on a fortnightly basis to remove noise. Prices shown are in $/MWh in red on the left vertical axis.

Also showing as "bars" are prices for "Q1 base swap" contracts (that is, contracts to hedge during Calendar Quarter 1 [1st Jan to 31st Mar] by swapping the spot price for a fixed agreed price). Quarter 1 (Q1) is chosen because it represents the Summer period which tends to be more volatile. Q1 contract prices are shown in $/MWh on the right vertical axis. Each colour bar represents the contract price for Q1 in the particular year (ie 2012, 2013, 2014, 2015)

It should be noted that there is a clear "step up" between 2012 Q1 prices and 2013 Q1 prices. This is due to the impact of the carbon scheme which was responsible for between $15 - $25/MWh increase in underlying pricing in both spot and contract markets – this step increase should be ignored because it is unrelated to the issue of late strategic rebidding. Similarly, there is *some* "step down" from 2014 Q1 prices to 2015 Q1 prices because while 2014 Q1 was a carbon quarter, the carbon regime did not apply in 2015 resulting in *some* drop in underlying spot and contract price. Ignoring these two aspects of the chart, a clear step up in Q1 prices can be seen shortly after persistently extreme spot prices. For example spot price spikes between Dec-12 and Jan-13 were followed by increases in the 2013 Q1 contract price to between $150 and $170/MWh – this is an extreme uplift in the context of underlying price for the Q1 preceding the uplift of approximately $100/MWh. Similarly, spot price spikes towards the end of 2014

Calendar Year and the beginning of 2015 appear to be strongly correlated with a sharp uplift in 2015 Q1 prices from a base preceding the spikes of $70 - $ 80/WMh to between $110 - $140/MWh – an equally drastic impact to Q1 prices in that year.

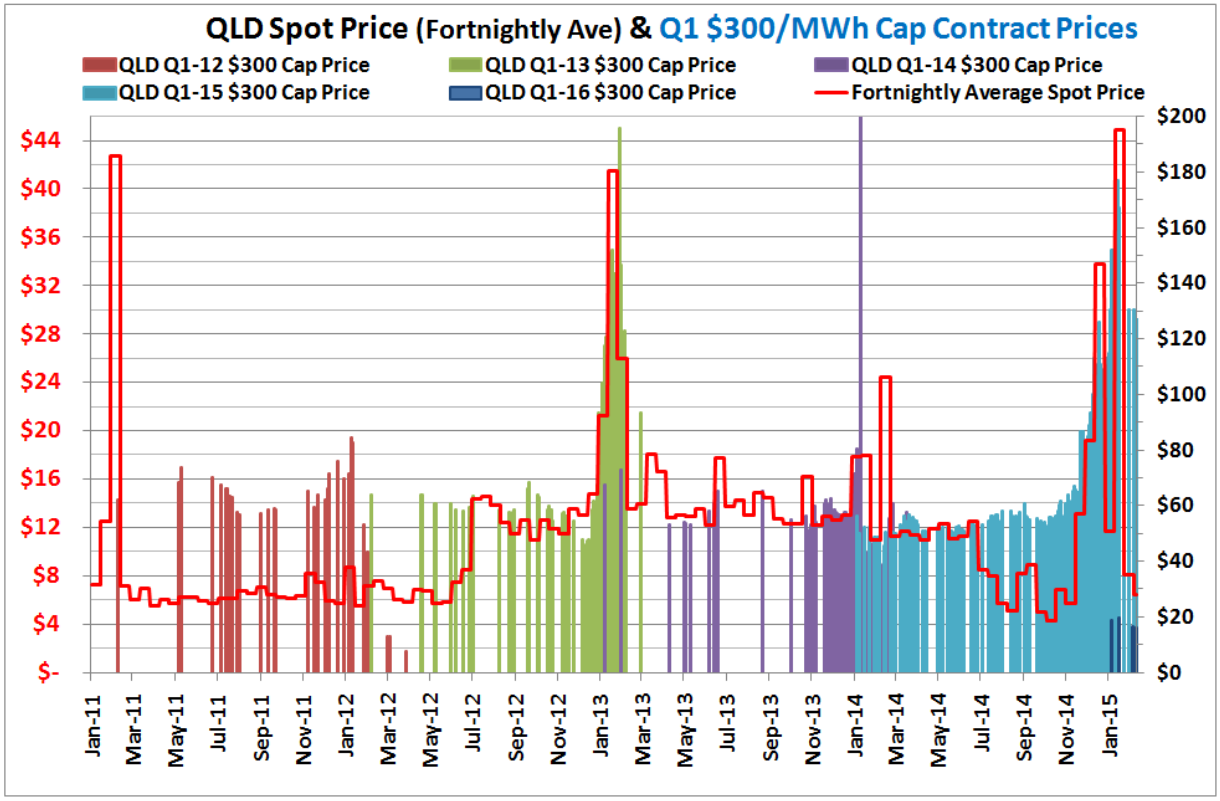

Chart 2

Similar to the chart of spot price and swap contract prices, Chart 2 above shows spot price (again fortnightly averaged $/MWh in red against the left axis) and contract prices for "$300 caps" – that is the price offered by financial markets to cap exposure to spot price to a maximum of $300/MWh. Again, the contract prices are for Q1 (Jan-Mar) caps – cap prices are indicated on the right vertical axis.

Note that the commentary around carbon price and swap prices does not apply in the context of caps since caps target volatility and extreme pricing and are unaffected by the relatively small impact of carbon on the extreme end of spot price (ie between $300/MWh to Market Price Cap, in the context of, nominally $20/MWh relating to carbon).

As in the spot vs swap charts, the above chart shows a clear following of spot price by Q1 price particularly at times of late strategic rebidding – notably, Dec-12 to Jan-13 and Dec-14 to Jan-15 – note the steep increases in the contract prices relating to the particular quarter in which the spot prices have "spiked" – the spikes appears clearly correlated with a resultant major uplift in cap price.

Cap prices tend to be a reflection of perception by contract traders of volatility and risk at the high end spectrum of spot price and the above chart clearly demonstrates that traders attached clear high end risk to the Queensland spot market.

Given the rapid response of contract markets to extreme spot outcomes which is apparent from the above charts, Visy is firmly of the view that hedge contract and derivative markets do not provide a "safe haven" or alternative for those seeking shelter from price shock in the spot market – in short, there is no escaping spot prices which are the consequence of late strategic rebidding.

Retailer experience

Retailers and wholesale customers use both swaps and caps (amongst other instruments) to manage their wholesale electricity costs and unquestionably, retailer's wholesale electricity costs have gone up materially in Queensland, directly flowing onto the entire spectrum of retail customers.

In a supplementary submission to the Queensland Competition Authority by Origin Energy supporting the case for higher regulated retail rates[5] the retailer highlighted the steep uplift in Queensland spot prices in January 2013 and the direct impact on wholesale swap and cap contract prices.

Further, in February 2013, Origin Energy's Managing Director, Grant King, publicly reported an adverse impact to profitability of some $30 - $35 million due to "higher market prices" in Queensland[6] – Visy understands that the vast bulk of this hit to profits was related to extreme spot prices in January 2013 during which questionable and late strategic bidding behaviour by base load generators in Queensland featured prominently. Ultimately, while Origin Energy's shareholders may have paid for this profit hit and small retail customers may have had their rates fixed for a period of time, these large exposures and risk of future exposures are ultimately passed through to retail customers, big and small.

The Need for Rebid Gate Closure

As highlighted above, the key problem with late rebidding, not to mention the questionable intent underpinning this bidding behaviour, is that it eliminates a large range of potential response due to the lack of warning to potential responders in a temporal sense – this is a direct result of having no "deadline" for rebidding prior to a dispatch interval.

As the AEMC succinctly stated in its Options Paper:

> *"The determination of an appropriate form of gate closure requires the consideration of the trade-off that exists between:*

[5] Letter from Mr Phil Moody, Origin Energy, to the QCA on 22nd January 2013 - http://www.qca.org.au/getattachment/a1d84ce0-72b1-477e-bf91-c506a3ba9fb3/Origin-Energy-supplementary-submission.aspx

[6] Article in Sydney Morning Herald on 22nd February 2013 entitled "*Origin blames power prices for slump*" http://www.smh.com.au/business/origin-blames-power-prices-for-slump-20130221-2eu8e.html

• the promotion of an iterative process of price discovery and the flexibility of the market to respond to changing market conditions; and

• limiting the ability of participant rebids to disproportionately influence price outcomes close to dispatch.

The level of restrictions on types of rebids and the window of time over which these restrictions apply are both factors that determine the compromise between these two competing drivers of market efficiency."

What are the alternatives to gate closure – will a behavioural statement of conduct be effective?

While the SA Govt rule change proposal advocates for the provisions relating to generator bidding in good faith to be altered and bolstered, Visy's concern is that the probability of success of specifically tackling late strategic rebidding under good faith provisions is not likely to be high – notwithstanding the alterations suggested by the SA Govt, the *Stanwell* case[7] demonstrates how challenging it is for the AER to succeed in these kinds of cases – good faith provisions by nature leave a large amount of discretion to the court and this uncertainty may not resolve in a manner actually contemplated by policy makers – Visy believes the *Stanwell* case is a classic example. Even if successful targeting of this conduct occurs via litigation, the time involved to develop a case and then mount legal action may come after the "damage is done" and may also not be successful in deterring similar behaviour in the same region or other regions in the future depending on how clear and decisive the court's findings are with regard to late strategic bidding generally and not just in the particular case heard.

In short, Visy is concerned about the *effectiveness* of a behavioural statement of conduct alone, in targeting late strategic bidding. This is not to say that a strong behavioural statement of conduct does not have a place in the NEM which is discussed later.

Does gate closure merely bring forward the last bid?

As some have argued, particularly those who argue against strengthening provisions aimed at the bona fides of generator bidding, imposing gate closure ahead of a dispatch interval will bring forward the last bid – that is to say, potentially active rebidding will continue to occur but will end earlier with advanced gate closure – one participant will always have the "last laugh," metaphorically speaking. Those who advocate for no change for generator bidding rules argue that simply bringing forward the last bid doesn't change the efficiency of the market because somebody always has to be the last bidder.

However, as the AEMC points out in its Options Paper, while bringing forward gate closure will bring forward the deadline to rebidding which may not necessarily alter the bidding response of participants, it materially alters the potential for **physical response** by participants and consumers.

As noted by the AEMC:

[7] *Australian Energy Regulator v Stanwell Corporation Limited (2011)*

"the ability of generators to undertake a rebid in response to a competitor's rebid is not the only form of response that can increase the efficiency of market outcomes. The purpose of gate closure would be to support the ability of participants to undertake a physical response to a late rebid. Depending on the window of time prior to dispatch to which the rebidding restrictions apply, gate closure would provide time for:

- *fast-response generators to synchronise and generate in accordance with their existing market offers in the bid stack;*
- *demand side participants to make an economic decision to reduce consumption in response to high prices."*

Therefore arguments that gate closure advancement does not materially alter market efficiency because of a mere bringing forward in bid cut-off are not compelling since, at very least, a range of additional physical responses will have become possible, certainly adding further real-time competition and therefore efficiency to the market.

Timeframe for Gate Closure

Previous deliberations on gate closure in the context of the NEM – ACCC and NECA

The consideration of gate closure in advance of the dispatch interval is not new.

Both the ACCC and NECA, in the infancy of the NEM, recognised the possible place of gate closure as a means of limiting late bidding activity designed to, or at least having the effect of, limiting competitive response.

Back in 1997, the ACCC considered a gate closure period of 3 Trading Intervals (ie 1.5 hours) in advance of dispatch.[8] Ultimately the ACCC assessed that this prohibition would result in inefficient production outcomes and likely higher spot prices due to the market not being able to respond as dynamically in these timeframes as it would otherwise be able to do. However, as the AEMC noted in its options paper, the ACCC, in making its determination, considered options including, notably, preventing rebidding of generation volume from a low price band to a high price band within three trading intervals of dispatch.

NECA also reviewed the possibility of 3 hour gate closure period.[9]

Gate closure period and response time of other parties

Given that one of the primary concerns with late strategic rebidding is that it offers either no time at all or otherwise insufficient time for others to respond physically.

[8] Application for authorisation – National Electricity Code: ACCC – December 1997

[9] "Generators' bidding and rebidding strategies and their effect on prices – Volume 1": NECA Code Change Panel, September 2001

As highlighted earlier and also in Visy's May-14 submission, a reasonable, but not overly generous response time for fast start generation is up to 30 minutes and also response time for a range of credible, efficient and practised industrial demand response is also of the order of 30 minutes, this order of timeframe maybe sufficient to ameliorate the concern that response is simply not possible as the rules stand at present.

International perspective

As part of the AEMC review of this issue, it commissioned the Competition Economists Group (CEG) to conduct a review of prominent and established primary wholesale electricity markets around the globe.

As demonstrated in the AEMC's succinct comparison of gate closure proscriptions for various markets, the NEM is somewhat unique in having ***no*** gate closure for bids – that is, bids are permitted under any circumstances, virtually just prior to the next dispatch interval.

In the jurisdictions reviewed by CEG, generators are subject to the following gate closure periods before which their ability to rebid is *unfettered*:

- Alberta, Canada – 2 hours prior to settlement interval
- Singapore – 65 minutes prior to dispatch
- New Zealand – 2 hours prior to the trading interval
- France – 45 minutes prior to delivery
- ERCOT (Texas, USA) – 1 hour prior to operating hour
- PJM (USA) – 6pm on the day prior to dispatch

Critically, the CEG review points to little evidence that these jurisidictions see any material impairment to competition by having their gate closure periods set at their current levels.

As pointed out by the AEMC, gate closure should also be viewed in the context of the Market Price Cap – the lower the cap, the less critical gate closure becomes because the impact of late strategic rebidding is lower in financial terms. The Market Price Cap for the NEM is certainly very high by international standards and if anything, this is a reason to maintain a longer gate closure period in the NEM than in comparable markets with lower price cap.

It's important to note that in some instances, generators are permitted to rebid within the gate closure period but in all cases, a narrow and strict range of reasons must be provided – this is referred to below in discussing the options for exceptions to rebidding within gate closure.

30 minute gate closure period proposed

Subject to the issue of what circumstances may excuse a generator from rebidding within a gate closure period, Visy believes that a 30 minute gate closure is appropriate.

Visy does not propose a 3 hour gate closure as once considered by NECA and also acknowledges the early concerns of the ACCC about the potential impacts for efficiency by having gate closure as long as 1.5 hours.

The AEMC has also enunciated in its Options Paper the need to consider the trade-off between the potential loss of efficiency by limiting the ability to rebid in advance of when information about the condition of the market is at its peak (ie time of dispatch) and on the other hand, the inefficiency that comes from late strategic rebidding.

Further, given some of the key concerns with late rebidding are around the ability of others to physically respond, 30 minutes appears a reasonable compromise and is certainly considerably and materially shorter than the 1.5 and 3 hours considered previously by the ACCC and NECA respectively and in that sense is far less likely to cause potential inefficiencies identified by the AEMC.

Lastly and most starkly, 30 minutes is still a markedly shorter gate closure period than in the range of functional and effective established wholesale spot markets around the world canvassed by CEG – out of the six international markets reviewed, the shortest gate closure period in force is 60 minutes.

In short, Visy strongly believes that, subject to consideration of exceptions to bidding within gate closure, 30 minutes is the appropriate timeframe for gate closure for the following reasons:

- it will not materially impact efficiency of the market from the perspective of the information available at that time prior to dispatch
- it provides time for credible and well-run fast start generation and demand response but will not be generous so as to capture load shedding or generation which is not at the leading edge of responsiveness
- it is shorter than periods previously considered by policy-making and regulatory bodies over the history of the NEM
- it is a trim timeframe when benchmarked against highly effective and established primary electricity markets around the world, especially considering the NEM's very high market price cap in a global context

Horizon for gate closure – what does 30 minutes represent in the context of dispatch and trading intervals

In Visy's May-14 submission, it proposed that the gate closure horizon should always be 30 minutes from dispatch – that is to say, rebidding should be prohibited, subject to exceptions, for 6 dispatch intervals prior to dispatch. The AEMC has referred to this option as Option C at page 71 of its Options Paper.

Visy re-iterates its strong preference for this gate closure horizon noting the balance between mitigating against late rebidding which is damaging to market efficiency on one hand and not being an unnecessarily lengthy period which would otherwise limit efficient response on the other hand.

The AEMC has, however, highlighted the significant complexities in determining the horizon for gate closure even if a nominal timeframe for gate closure is identified (eg 30 minutes).

It rightly points out some potential challenges that AEMO may face in allowing for its market clearing engine and other systems to accommodate the change.

To the extent that the risks in making these changes, to safe, reliable and secure operation of the market generally are too significant, Visy notes Option B canvassed by AEMC – the restriction of rebidding within the current trading interval and following trading interval.

Visy proposes Option B as an alternative to Option C if the risks and costs associated with Option C are too significant.

Visy does not support Option A – restriction on rebidding within the current trading interval. This is because of scenario where rebid occurs within the last dispatch interval within a trading interval - the effective "lock out period" could be 0 minutes in relation to the next trading interval which effectively delivers the same result as the current market. While "late rebidding" in relation to the current trading interval maybe reduced, the next trading interval is still subject to sudden changes still leaving generators and other parties no time to respond which is at best a compromised outcome.

Exceptions to Rebidding Post Gate Closure

As highlighted above, a 30 minute gate closure is trim, globally speaking. Nonetheless, Visy believes that some specific exceptions to allow rebidding within gate closure are advisable to maintain system security and market efficiency and to not hamper generator flexibility unnecessarily.

As the AEMC has pointed out, a balance must be struck between (a) the period for gate closure before which rebids can occur at the discretion of the generator, and (b) the circumstances in which a generator maybe permitted to rebid within the gate closure period.

Given that a 30 minute gate closure is short at very least in a global context, it's appropriate that the allowable bases for rebid within gate closure are moderate and not too liberal.

Visy takes stock of exceptions catered for in international markets as studied by CEG for the AEMC.

Physical & Safety Reasons

1. Necessary for safety, environment or system security
    - It is necessary for the generator to rebid in order to mitigate potential or actual negative impact on NEM system security, safety to personnel, material negative impact to environment
    - Whether the rebid was in fact necessary for safety or environment must meet an objective test
    - As noted by the AEMC, consideration should be given to whether generators should be able to adjust their bids at other generating units within their portfolios in these instances – it may well be that that a generating entity may need to manage its wholesale risk and potentially contractual risks by compensating with other units and so such an allowance may well be appropriate, provided that the necessity to do so is

clearly linked back to an objectively identified serious safety, environment or system security risk

2. Unplanned / forced outage due only to technical fault or safety or environment
    - An outage has been forced by (a) a technical fault of the generating plant or (b) actual or threatened impact to safety of personnel or environment by maintaining the standing bid

Lower Price Band

3. Volume bid within a higher price band maybe revised to be bid within a lower price band
    - By nature, lowering the price of an offer does not normally impair competition since competition from suppliers will tend to lower prices (all other things being equal)[10]

Unacceptable Reasons

1. Reference to the constraint/outage of a transmission element not linked to safety/system security
    - Reference to the constraint or outage of a transmission element or interconnector is not an acceptable reason unless the rebidding is necessary for system security or safety – to be clear, referencing the transmission element constraint or outage is unacceptable for any other reason – notably, transmission elements have been frequently used as reasons for rebidding in Queensland in recent times where it can only be rationally concluded by observers that the underlying motivation for the rebid was for the generator to take commercial advantage of the outage or constraint of the relevant transmission element
2. Mixture of technical/physical and commercial/other reasons for the rebid (which do not involve safety or system security or the risk thereof)
    - A mixture of technical and commercial reasons could be used as means of avoiding the intent of the gate closure exceptions and, as highlighted by the AEMC, it maybe difficult for a legal arbiter to ascertain intent or to differentiate between technical and commercial reasons or determine which reason was predominant
3. Commercial or other reasons unrelated to safety or system security
    - The acceptance of commercial and "other" reasons would circumvent the whole intent of a gate closure mechanism.

International Markets

Exceptions canvassed by CEG in its report to the AEMC on other markets internationally and summarised by the AEMC are as follows:

[10] The only scenario in which lower prices could be said to impair competition or be anti-competitive is in a "loss leader" scenario – a so-called loss leader who, having sufficient market power, may attempt to drive down prices for a sustained period to a level where prices are lower than production costs across the market as a means of driving its competitors out of the market. However, without canvassing likelihood of loss leader activity in detail here, Visy concludes that it is highly unlikely that loss leading could be an effectively deployed strategy in the NEM.

- Alberta, Canada – volume changes only for Acceptable Operational Reasons (the nature of these reasons are relatively narrow and focus predominantly on physical issues affecting the generator)
- Singapore – 65 minute window: rebids for operational reasons but also subject to market surveillance; 5 minute window: absolutely no rebidding
- New Zealand – "genuine physical reason"
- France – no exceptions
- ERCOT – no exceptions
- PJM – transmission security, reserve, generator unit availability

Without discussing the complete detail of reasons allowed, in summary it can be said that apart from France and ERCOT where absolutely no rebidding is permitted within the gate closure period, the permitted reasons in other jurisdictions are essentially all physical in nature.

In this context, the exceptions proposed by Visy above are certainly not out of kilter in an international context and, with reference to some markets, are generous.

As pointed out earlier, a 30 minute gate closure period is narrower than all other markets canvassed by CEG providing additional comfort that the proposed exceptions are sound.

AER Powers in Relation to Rebidding within Gate Closure

Investigative powers

To ensure that the gate closure rule and exceptions are not subject to being flaunted, the AER must be granted discretion and powers to ascertain the veracity of reasons provided.

The AER must be granted discretion to investigate any rebid within the gate closure period and to obtain records and information from any participant to enable it to ascertain whether or not the reason provided falls within the allowable reasons specified above.

Warnings

The AER must have discretion to issue warnings to participants, as it does in relation to contravention of good faith bidding rules, but specifically in relation to the issuance of unacceptable reasons for rebidding within gate closure

Penalties

Penalties for non-compliance with gate closure rules should be toughened relative to contraventions of good faith bidding rules generally, given the particularly damaging nature of late strategic bidding and contraventions of this kind.

Behavioural statement of conduct

Existing good faith provisions, as identified by the SA Govt, are ineffectual.

While Visy has focused primarily on the specific targeting of late strategic rebidding by employing a gate closure mechanism, Visy also strongly believes that an effective behavioural statement of conduct is crucial.

As discussed earlier, other behaviour of concern is the "macro-trading" behaviour of generators such as medium / long-term economic withholding of capacity, particularly when it is coupled with "micro-trading" behaviour such as late strategic rebidding.

It's important that the macro-trading behaviour and other forms of conduct in the NEM, where they go well beyond a corporation's legitimate endeavour to increase profits, should still be subject to strong behavioural checks and balances.

As the AEMC has also rightly pointed out in its Options Paper with reference to analyses conducted for it as part of its review, the withdrawal of generation capacity has also been correlated with high electricity demand in Queensland recently. Large generators with significant surplus capacity, as has been the case in Queensland recently, may have a significant increase in market power when demand for electricity is high

Common sense definition of good faith

As identified by Visy in its May-14 submission, there are too many elements in the existing good faith provisions that make them susceptible to being ineffectual, as was demonstrated in the *Stanwell* case. In this context Visy proposed that a better alternative to the SA Govt proposed refinement of the existing provisions was to provide simply that generators should act in good faith, without qualification or definition – a non-proscriptive definition with reference to the common meaning of the word good faith stands a much better chance of targeting behaviour of questionable intent.

However, this of itself may not be sufficient and there is every possibility that while improved, even this simpler and clearer approach maybe ineffectual because of the difficulty in proving intent.

Broader Competition Law - Harper Review – Competition and Consumer Act

Part of the problem with focusing on intent linked to bidding behaviour is the difficulty involved in discerning, or otherwise proving, intent.

The Harper Competition Policy Review referred to in the AEMC's Options Paper proposed the that s.46 of the *Competition and Consumer Act* (Cth) relating to abuse of substantial market power, be geared away from corporate ***intent*** as per the current section in the Act to a test of ***effect*** – that is, the effect on competition and the market. Specifically the Harper review suggestion involves proposing a prohibition on:

*"conduct [that] has the purpose, or would **have or be likely to have the effect**, of substantially lessening competition in that or any other market"*

While there maybe challenges to proving effect or likely effect, it is likely that the provision would be far more effective than the current intents-based rule and would also go to the very heart of the objective of the Competition and Consumer Act which is to promote competition and prevent anti-competitive behaviour.

International Alternatives

In noting, as the AEMC did, that reference to regulation of behavioural conduct in other markets internationally must be viewed in the context of the structure of those markets generally, it is important to have reference to regulation of behavioural conduct in those markets.

Two examples are as follows:

Singapore – actions which have the aim or effect of preventing, restricting or distorting competition in the wholesale electricity market, including fixing prices and limiting or controlling electricity generation and any conduct which amounts to the abuse of a dominant position to the prejudice of consumers.

The New Zealand market requires generators to engage in a 'high standard of trading conduct' and offers 'safe harbour' to generators if the generator complies with the following three requirements

a) The generator offers all of its available capacity,
b) It revises offers in a timely manner after receiving information that triggers the revision, and
c) It does not act to increase the price or benefit financially from an increase in the price at times when it is pivotal to the market.

While conduct outside the safe harbour provisions may still be determined to be legal, operation within these provisions automatically renders the conduct automatically legal.

Visy acknowledges the clarity and precision of the New Zealand safe harbour provisions but suggests that this statement of conduct may be too strong a shift for the NEM from the current landscape and may not be supported by the generator sector.

The Singapore provisions, in Visy's view, succinctly highlight the standards that ought be expected of a generator from the perspective of acting in a good faith in a common sense while capturing both the ***intent and the effect*** of the generator's conduct.

Conclusion

Visy believes that a combined approach to address generator behavioural conduct generally should be taken as follows (in addition to gate closure):

- Broader competition law reform – adopt the Harper Review suggestion on s.46 of the Competition and Consumer Act
- Replace the current bidding in good faith rule with a simple use of the term good faith which should not be qualified and therefore only be referred to the common sense meaning of good faith in practice
- Include a more specific provision on the standard of generator conduct in the National Electricity Rules which is similar to the Singapore proscription referred to above