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22 May 2014

Attention: Mr Chris Spangaro
Senior Director
AEMC
Submitted by upload

Dear Mr Spangaro,

## Bidding in Good Faith

CS Energy is pleased to have this opportunity to respond to the Consultation Paper on "Bidding in Good Faith" Rule change raised by the South Australian Government. We apologise for not being able to attend the Melbourne forum on the Rule change.

*Context*
Occasional high prices, or the risk of high prices, are a necessary feature of the National Electricity Market in order for it to provide efficient signals for the dispatch, scheduling and investment in electricity generation. The NEM is explicitly designed to have high prices, or the risk of high prices, through the Reliability Standard (a target level of unreliability) and Settings (a high price cap designed to incentivise investment in supply).

The NEM is an efficient market. When supply has been tight, prices have been high, with oversupply, prices low. Participants have dispatched, scheduled and invested in electricity generation by making private decisions arising from competitive market signals. These market signals are reflected in the physical NEM and derivative markets, where risks are priced and traded into the future. Importantly, should these competitive decisions have been poor; the participant has been punished or rewarded with either losses or profits.

The NEM and derivatives market allow participants to manage risk. If a participant wants to manage cash-flow they can enter in derivative contracts that allow them to offset market risk to another participant or intermediary. Some participants, rather than doing this have chosen to invest in generation assets to try to offset the market risk arising from their retail portfolios. This has been a *choice* in competitive strategy that has benefits and drawbacks. In particular the physical generator has outage and technical characteristics that may make it less firm than an electricity derivative as a cash flow hedge. However the physical generator has a level of dispatch that may be more flexible than a fixed volume swap or cap electricity derivative. Participants have the *choice* of competitive strategy to manage market risk.

The discussion over "late strategic rebidding" appears to suggest some participants are unfairly treated because they have an inability to provide a counter offer as the auction closes. We can only suspect the AER is considering these participants to be those that

**Brisbane Office**
PO Box 2227
Fortitude Valley BC Qld 4006
Phone 07 3854 7777
Fax 07 3854 7300

**Callide Power Station**
PO Box 392
Biloela Qld 4715
Phone 07 4992 9329
Fax 07 4992 9328

**Kogan Creek Power Station**
PO Box 41
Brigalow Qld 4412
Phone 07 4665 2500
Fax 07 4665 2599

**Wivenhoe Power Station**
PO Box 38
Fernvale Qld 4306
Phone 07 5427 1100
Fax 07 5426 7800

CS Energy Ltd ABN 54 078 848 745 www.csenergy.com.au

have *chosen* to enter into a physical rather than financial hedge. In the section "*Auction design – the importance of repeating the auction*" CS Energy concludes that a single auction result is unimportant because the NEM auction is repeated. If a participant uses a physical hedge, but that competitive choice does not work in a few instances does not mean it doesn't over the longer term.

CS Energy believes what the SA Government (with support of AER) has tried to highlight as inefficient behaviour (late strategic rebidding) is but a small outworking of a greater competitive strategy. Our view is what the proponent calls inefficient is the result of competition. This chasm between participants' and the proponents' view must be bridged through this consultation process.

CS Energy believes it is vitally important that Governments and Regulators realise this is how the market works. The NEM without occasional high prices or the risk of high prices would not provide correct incentives for participants to dispatch, schedule and invest in electricity generation. If the regulator interferes with competition and therefore prices, it will subvert market signals and act against the interest of consumers. It is more likely that the regulator would subvert the Rules in the interest of a participant or particular competitive strategy than for consumers on the whole.

To summarise our view of the Rule change proposal:

It is important for the efficient consumption of electricity that the Predispatch schedule is not manipulated. This is presupposed in the Rules by the good faith rebidding requirements. It is sensible therefore to retain the existing Rules.

Under the existing Rules participants already understand that they should submit offers in good faith and they understand that they should have good reason if they wish to change their offers. The Rule change proposal appears to offer no improvement over the existing drafting of 3.8.22A. The proposed Rule attempts to restrict the circumstances that must be used to infer an offer was in good faith.

We acknowledge the existing Rules struggle because they rely on an absence of a change in circumstance to prove and offer was made in "bad faith". This is only done by inference. In deciding whether this Rule change proposal has any merit, we are debating what material changes in circumstance are circumstantial and what constitute proof. The problem is a change in circumstance (or lack thereof) does not, in itself, prove good faith, as the evidence is only circumstantial. The proving by inferring from circumstances is the fundamental difficulty with 3.8.22A(c). This is a high evidentiary burden. It remains a difficulty even with the proposed Rule.

The existing Rules require the stating of intention by making an offer, but even stating an intention does not prove good faith. A participant may have no intention to honour a stated offer, but then the material conditions and circumstances upon which they made the offer do not change and they honour it even though it was not their intention. If they had revised the offer without a reason (without a change in the material conditions or circumstance of making the offer) the regulator would want a reason why – and they would need one, so absent a change in circumstances the offer should be honoured. This is how the Rule works today, in that it encourages participants to comply with offers they have made absent a change in the material conditions and circumstances from when they made the offer. Participants know that the regulator should be able to infer from the change in circumstances that the offer was previously made in good faith. So even if an offer was made in bad faith, the existing Rule does encourage participants to honour them

unless there is a material change in circumstances. We support retaining the existing Rule because this forces participants to think twice about submitting offers they would not be willing to honour.

That the regulator sometimes struggles to infer an offer was in good faith does not mean it was not in good faith. As stated the proving by inferring from circumstantial evidence is the fundamental difficulty with 3.8.22A(c) that remains with both the existing Rule and proposed Rule. The Rule change aims to make it easier to infer from circumstantial evidence that an offer is not in good faith by:

- reversing the onus of proof;
- reducing the circumstances where an offer can be changed;
- restricting generators to only change offers as soon as practicable after a change;
- restricting changes in circumstances to those published by AEMO; and
- excluding the non-fulfilment of traders subjective expectations as a valid change in circumstance.

The Rule change has the potential to either inhibit bidding in good faith or erroneously inferring a bid made in good faith was not. It is because of this we cannot support the Rule change.

Instead of benefits, the rule may result in the following costs: there could be a greater compliance burden, stymied competition (inefficient prices) and regulatory uncertainty for competitors in the NEM. In particular the reversing of the onus of proof has the potential for shifting the evidentiary burden unfairly to participants.

With regards to any changes, rather than a regulatory intervention (as proposed by the SA Minister) it may be worthwhile incentivising behaviour that "firms" up the Predispatch schedule. If there is great value in a "firm" Predispatch schedule, maybe consumers should be willing to pay for it? Any incentive based solution would probably be better than a regulatory intervention, which is likely to have unintended consequences, deadweight compliance costs and the potential to distort prices.

Yours sincerely

Scott Turner
Executive General Manager, Energy Markets

Enquiries: David Scott, Regulatory Manager
Telephone 07 3854 7440

**Q1 Do you consider *late strategic rebidding* to be the primary issue raised by this rule change request?**

No.

1. The primary issue of the Rule change is whether the original offer was made in good faith. CS Energy is disappointed with the emotive language used in the term "late strategic rebidding". "Strategic" gives the impression of premeditation and suggests a lack of good faith. Given we are discussing activity subject to personal civil penalties such language is unhelpful.

2. It appears the Regulator (AER) suspects that generators are not offering prices in good faith. This suspicion may come from behaviour whereby participants rebid offers more frequently in the last few trading intervals, well into the Predispatch schedule, rather than earlier. The regulator may view there being, during the Predispatch schedule, material changes in circumstances occurring, (change in demand/weather, outage, price), but no revisions to offers but then more rapid change closer to the dispatch interval.

3. We can assume the Regulator is asking the question, "If that was immaterial earlier in the day (you did not rebid) then why was it material later in the day?" The Regulator must be inferring a lack of good faith because a preceding, similar change in circumstance change did not solicit a new offer, but a latter change in circumstance did.

4. We believe this is for the following reasons, which are not "strategic behaviour":

    a. The NEM forces suppliers to submit prices and volumes up to 16 hours to 40 hours ahead. This is quite an onerous obligation on suppliers, but maybe sensible given the required time to commit supply into the market. It is onerous from the perspective of competing in a market, all the time for a period of 40 hours to 16 hours. Participants probably do not have the capacity to respond to immediately to changes throughout a schedule of 40 hours. Things change but participants' response is probably measured until the Predispatch schedule "firms" through the day. For instance there may be something happening within the trading interval that prevents an immediate rebid on something happening in the Predispatch in 20 hours time.
    b. The NEM Predispatch schedule "firms" through the provision of information in more detail and at greater accuracy as the day progresses. Spot Prices will have been calculated and can be an indicator of future prices. Temperature, availability, humidity, supply, transmission availability all become more accurate as the schedule progresses. In particular AEMO publishes the 5 minute Predispatch schedule and AEMO will make revisions to Predispatch throughout the period. The Participants themselves will have better internal information on plant performance as the day progresses, dependent on wind, ambient temperature, coal quality, cooling water temperatures or possibly gas nominations.

c. Competitors learn as the schedule progresses and one change in circumstance begets another, leading to a cascade of changes to offers as participants compete with each other.

5. In short, under A to C above, the circumstances are not the same. You can infer a lack of good faith by comparing circumstances and rejecting some you believe have already occurred, but we question whether this proves anything.

6. The difficulty with the Rules is that changes in circumstance do not really prove intention, they are just circumstantial. Thus using one circumstance to rule out another, rather than just the absence of changes of circumstance is even more difficult.

7. If circumstances changed earlier and a participant did not change offer prices, **but** then did later on, does not prove the original offer was in bad faith. It proves the circumstances were not the same.

*Auction design – the importance of repeating the auction*

8. The consultation paper highlights participants rebidding late in a settlement period. The discussion focuses on the ability for a supplier to change offered volumes without another supplier having the opportunity to submit a counter offer.

9. It appears sensible that the NEM auction needs to close without allowing a counter offer because electricity supply and demand must be matched in real time. If one price is inefficient because a counter offer was excluded doesn't matter because the auction is repeated in the next five minutes and so on. That the auction is repeated is important, because it means even if one five minute price is inefficient, competitors can respond to ensure an efficient outcome arises over a longer period. This would be true irrespective of whether the market is settled over the half hour rather than every five minutes.

10. In this respect the NEM is different to when you are selling your house at auction. In that case the auction won't be repeated, so you want all bidders to have had the chance to put a bid after another has made theirs.

11. With each dispatch interval, trading interval, hour, day or season there will be some topsy-turvey results as some competitors' strategies succeed or fail, but over the longer term the strongest competitor will emerge as they learn from these mistakes and experiences. Importantly a minor inefficiency in an interval will solicit a response to try to change it next time.

12. In the NEM, if a supplier misses out on a price spike in the one five minutes of a trading interval will they change tactics by increasing supply during another? Of course they will - the first outcome guarantees a different outcome next time.

13. The SA Government, the AER and the AEMC all appear to conclude that every price has to respect an efficient merit order: we must have dispatch that respects the merit order in every dispatch interval and prices that reflect this.

14. We believe such a goal is impossible given market participants determine dispatch through their competitive strategies and through responses to changing competitive circumstances. It is impossible that prices in a real market will be efficient in every five minutes.

15. Even with the Rule proposal this would not be the case. The disposition of assets, costs, perceptions of risk, human nature and commercial drivers will ensure prices differ from the "perfect" merit order dispatch.

16. This is different to the AEMC's consideration. The consultation paper appears to conclude that late strategic rebidding is bad. "*Over a sustained period, late strategic rebidding can lead to higher wholesale price volatility. This may increase the costs of hedging required to manage price risk and may result in higher prices for consumers*" It also discusses the potential for late strategic rebidding to discourage efficient investment through distorting price signals for new entrants. On page 19 the AEMC goes as far as to state "*behaviour of this form that results in unnecessary price volatility reduces spot price predictability may further increase the risk premium on hedge products*". The consultation paper also discusses the concept of "*transient pricing power*" and precludes "*late strategic rebidding*" as being synonymous with transient pricing power. Transient pricing power is acceptable within a workably competitive market where prices are not persistently above LRMC.

17. For consultation paper to be so forthright in its condemnation of "late strategic rebidding" is surprising. It appears the AEMC considers it to be inefficient.

18. This conclusion is interesting as it shows a potential misunderstanding as to how competition in the NEM works. A price at the end of the interval, subject to a reduction in low priced supply may increase; it may not, depending on the market circumstances as they develop through the trading interval. A counter offer may have been made. The NEM auction offers no guarantees.

19. Notably the prices earlier in the interval are going to reduce the price: if the first Dispatch Interval is priced at $50/MWh the Trading Interval price is reduced by $2,175/MWh. Every interval that passes, a supplier foregoes a potential $2,175/MWh. If conditions allow, at the end of the interval a $13,100/MWh price may occur and the price is $2,225/MWh for the Trading Interval. If it stays at $50/MWh the price is $50/MWh for the interval and the strategy backfired.

20. Strangely enough the rebidding later in the interval has just created a new de-facto cap of $2,225/MWh. Shouldn't we be asking why suppliers did not rebid early in the interval, hold their nerve, and set the price at the MPC for more than one Dispatch Interval? If they were not constrained by other competing suppliers, this would be the logical outcome. They wouldn't wait until the end of the interval because every 5 minutes is worth $2,175/MWh. These traders could be missing opportunities by following such tactics, in responding to changes in circumstances only later in the trading interval.

21. Also, this tactic also begets a new competitive dynamic. Because one participant is concerned a participant will be reducing supply late in the interval, they will

deliberately increase supply in the interval, pre-empting the likely supply response of another. When suppliers compete, they will reduce profits for all suppliers as they question one another's strategy and miss opportunities. This is especially the case if suppliers preclude opportunities earlier in the trading interval, and thus create a new de-facto cap of $2,225/MWh. If these suppliers miss the price spike later in the interval, the price will remain near $50/MWh. These prices are low.

22. The consultation gives the impression "late strategic rebidding" is a dead certainty. All the evidence shows this is untrue. Suppliers see circumstances develop and then rebid, but are more often than not, unsuccessful, because of other competitive forces, such as another rebid or demand side response that they did not know about.

23. This is shown in prices over Q1 2014. In QLD it was $65.82/MWh, in VIC it was $56.10/MWh. Less carbon, these prices are lower than generators require for an adequate return. For every price spike there were thousands of intervals that priced at about $50/MWh. In QLD there were only 30 dispatch intervals or 0.12% of the time whereby the dispatch interval price was in excess of $8,000/MWh. The average price excluding these 30 intervals was $52.34/MWh. There was only one trading interval where the price was over $2,300/MWh, which means a price spike was only repeated once in a Trading interval.

24. The dispatch interval price was below $60/MWh for 95% of the time. Why was the price in QLD so low most of the time? Could it be because supply had increased in response to the competitive threat of suppliers keen to increase the price? Did this competition drive the price down most of the time, so it was very difficult for a supplier to increase the price bar for a few intervals? This is shown by there being no periods of sustained high pricing. Suppliers were therefore constrained by competition from other suppliers, or they perceived they were constrained by others and limited their ambitions.

25. We can imagine a dynamic whereby there was no threat of higher prices in the trading interval. Would the price have averaged $52.34/MWh, which is the price excluding the 30 dispatch interval prices above $8,000/MWh? The answer is probably no. The $52.34/MWh is a price resulting from the competitive dynamic that includes the 30 spikes. Take these away and there probably would have been less supply by some participants exposed to the price. We can surmise that the price would be higher, closer to, or possibly similar to, the $65.82/MWh.

**Q2 Do you consider the NEM trading arrangements of five-minute dispatch and 30 minute settlement to be relevant to the issue of late strategic rebidding? Do you have any views as to how any issues arising could be addressed?**

No.

26. The five-minute dispatch and 30 minute settlement are not particularly relevant to the issue of late strategic rebidding. It is a separate question. As we stated in the preceding question, what is more important is the timing of the closure of the auction and how often the auction can be repeated.

27. We have already stated the primary issue of the Rule change is whether the original offer was made in good faith. We do not agree with the primary issue being "*late strategic rebidding*" and therefore believe the 5 minute dispatch and 30 minute settlement is not important when considering the Rule change.

28. CS Energy does not yet have a view on changing five-minute dispatch and 30 minute settlement. It will change incentives and risks on participants significantly. We have yet to conclude whether this would lead to more efficient outcomes.

**Q3 Do you consider there to be benefits in the proposed rule to reverse the onus of proof onto generators?**

No.

29. The good faith provisions are difficult (but not impossible) because it is about proving intent by inference. The question is did you intend to supply with that offer? It is difficult to prove intent: you often have good intentions, but end up failing to do as intended for a number of reasons. Just because you didn't do it doesn't mean you didn't intend to do it.

30. At the moment the AER has to prove suppliers did not intend to honour the price they offered - they can do this by inference through there being absent a change in circumstances if another price is offered (a rebid is made). This is akin to your boss saying you never intended to do it. As we have mentioned, that you never intended to do it cannot be proved by not doing it per se, but in theory could be proved by your boss pointing out that you were not interrupted, given other tasks, etc.

31. The Rule change if it applied to your boss and you, requires you to do as you said (as you expressed your intention) unless you can prove you were interrupted, given other tasks, etc and limits what these changes in circumstances can be (your boss may also require you to set these circumstances out in advance).

32. Your boss reserves the right to do either, by pointing out you were not interrupted or by requiring you to prove you were not interrupted, and hence why you did not do as you said (stated you intended to do). The onus of truth doesn't really change things much – either way you need to be sure you have a reason why you didn't do something you said you'd do. The onus is already on you to have the evidence required. The benefit therefore of reversing the onus of proof is likely to be low.

33. The cost however may be greater as traders may be more wary of their position. They may see the likelihood of civil penalties being greater because the onus is on them – any error to record the reason for changing an offer could be used to infer a lack of good faith. Your boss will not fine you $1,000,000 for saying you'd do it, but not really intending to do it.

34. For a trader to be exposed to $1,000,000 penalty because they failed to record the material condition and circumstances and the resultant change is unreasonable. It also creates problems with regards to the role of the corporation and the trader. At present the corporation cannot indemnify (nor would they want to) the trader. But what if the

corporation loses or deletes the records? There are significant compliance ramifications of changing the onus of proof.

35. With regards to the Stanwell case it is our understanding the AER was hampered by evidence provided before and then during the trial. This was because the Judge took greater credence of the Traders' evidence provided in person at the trial than that previously submitted by Stanwell. This may be the reason why the Rule change proponent aims to shift the evidentiary burden onto the participant.

36. We believe the case made by the AER was that a rebid was made, the price did not go up and a further rebid was made to increase the price. The AER argued it inferred a lack of good faith in the first rebid, as the material conditions had not changed from the first rebid.

37. Irrespective of the evidence provided and who provided it, the trader wanted the price to go up. There was no evidence that could be used to infer the trader had deliberately used the first offer to keep the Predispatch or dispatch price low whilst premeditating a second offer to increase the price.

38. The Rule change aims to reverse the onus of proof and include a note under 3.8.22A(e) to restrict the opportunity to rebid when subjective expectations are not met. The Rule change would have resulted in the Stanwell rebid (simplified above) being inferred to be in bad faith, when judgement considered this was not so. We believe this would not be efficient.

**Q4a) Do you consider that all known conditions and circumstances should be taken into account in generator rebids?**

We do not know how to answer this question.

39. The proponent is said to consider that generators should take into account all known conditions and circumstances when rebidding. A participant will attempt to do this, but will be impossible to do so in practice. This is because the spot trader cannot know everything that's going on in both the NEM and its own business at the time of making an offer to AEMO.

**Q4b) Do you consider the proposed rule to be practical and sufficiently clear as to when a generator must rebid following a change in material conditions and circumstances?**

No.

40. With regard to the "as soon as reasonably practicable" change included in the proposal, it is CS Energy's view that this adds nothing to the existing Rules. The Rules require generators to change their offers only if the material conditions and circumstances on which they submit them change. The Rules require the AER to draft a guideline. The Guideline states:

*"the time the event occurred (for the avoidance of doubt, this may not be the time at which the decision to make the rebid was made, nor the time the rebid was submitted to AEMO, this is the*

*time at which the relevant event(s) or occurrence(s) that the participant adduced as the reason for the rebid occurred)"*

41. Participants state the time the event occurred. Most of the time this is just before when the rebid is submitted, so the time of the rebid will do. If the participant submitted an offer which quoted an event or occurrence that was in the past it may not be relevant to the circumstances, even if the material conditions on which the offer was made had changed. It may be inferred that there was a lack of good faith with the use of a "spurious" reason.

42. Traders try to avoid this by either rebidding quickly after an event / occurrence or discounting the event or occurrence as not meeting a change in the material conditions or circumstances upon which the offer was originally made.

43. If the event or occurrence develops, they may revise this view. We shall consider this further.

44. The Regulator appears to hold the view that the generator is only entitled to rebid for a change in circumstances, immediately when that change first occurs. This view of "act now or forever hold your peace" is a little simplistic. We have already said that it is impractical for traders to respond to every change over a 40 to 16 hour Predispatch schedule.

45. Circumstances develop over time and that if circumstances persist, or persist in forecasts, we assume greater credence than when the circumstance is first forecast. That the circumstance is persisting in the forecast, is a change in circumstances in itself. For example the trader may think the first Predispatch schedule is unreliable, because they have made their own judgement on the humidity of the day or the potential for demand side response, but when the Predispatch schedule "firms" they may change their mind and respond to the change in circumstances.

46. In any case, they may have missed the first publication of the change in circumstances because they were off shift, stuck in traffic, making a coffee or for many other reasons. They may just not have seen it until later.

47. We are debating what represents a change to the material conditions or circumstances upon which an offer is made are circumstantial or what constitute proof. The problem is a change in circumstance (or lack thereof) does not, in itself, prove good faith, as the evidence is circumstantial. Limiting the time to respond (to changes in circumstance) will not improve the performance of the existing Rule in this respect.

**Q4c) Do you consider that rebids should only be limited to the occurrence of a significant change in conditions and circumstances? If so, how would this be achieved in practice?**

No.

48. What happens is generators record the change in circumstances to "prove" (which means it can be inferred) that they had originally submitted offer prices they would

honour. This is deemed reasonable. We cannot see why this is not reasonable behaviour for competitors.

49. Small changes can be material under certain circumstances. A perfect example is the rationing of capacity on a transmission line under a constraint. Under "feedback" constraint equations, AEMO's dispatch engine calculates the capacity available in real time – these can have material impacts on prices even though the change in volume is low. Also, may we comment that the spot market is smaller than the total volume settled by AEMO – in simple terms, over 90% of the spot market is hedged out by the sale and purchase of derivatives used to manage participants' cash flow. The remaining few per cent can be quite small – and can be extremely sensitive to minor changes in dispatch.

50. We are debating what represents a change to the material conditions or circumstances upon which an offer is made are circumstantial or what constitute proof. Ruling out some changes in circumstance as being immaterial will not improve the performance of the existing Rule in this respect. It runs the risk of preventing legitimate changes to offers because a trader is concerned the regulator believes the reason for changing the offer is immaterial (even though the trader thinks it is material).

**Q5 Do you consider it reasonable that all bids and rebids should be made with reference to published AEMO data?**

No.

51. The proposed rule change includes 3.8.22A(e)(1)(ii) "or other material change", as well as reference to AEMO data. We note however that the AEMO data is referenced under (i) separately and may be considered to have pre-eminence.

52. Participants are expected to make their own judgements and not rely on AEMO. Spot Traders are very sceptical of AEMO's forecasts. Part of the reason for Participants' scepticism is because the forecasts are increasingly affected by demand side response, assumptions on distributed generation and the expected utilisation of non-scheduled generation (a particular problem in South Australia as highlighted by Alinta). It is also affected by the TNSPs' Market Impact Parameter Scheme (MIPS).

53. For example AEMO includes demand response as bid in at $13,100/MWh (prepared to pay to the price cap), yet these customers may reduce load at much lower prices. A participant may make his or her judgement about the forecast and likelihood of prices being correct. This will lead to efficient prices because participants' decisions will be subject to commercial rigour, unlike AEMO's forecasts, which are not subject to commercial discipline.

54. AEMO provides no warranty on its forecasts and participants are not paid Predispatch prices (as Victorian Participants could attest for January 2014). It would be unreasonable for participants to be expected to base their commercial decisions solely on the market operator's information. For example, AEMO erroneously forecast demand in QLD on Monday 5th May to be lower than the weekend preceding because

it had not adjusted its forecast for the change in public holiday. Should CS Energy have de-committed a number of units for the long weekend on the basis of AEMO's forecast?

55. We are debating what represents a change to the material conditions or circumstances upon which an offer is made are circumstantial and what constitute proof. Ruling out some changes in circumstance will not improve the performance of the existing Rule in this respect. It runs the risk of preventing legitimate changes to offers because a trader is concerned the regulator believes they are not valid.

**Q6a) What are your views on the options discussed above? Do you consider any of these options or any other options around the design of the bidding process to better address the issues raised in the rule change request?**

56. The options outlined in the consultation paper are all regulatory interventions into the competitive market. Markets usually work better if they are affected by the correct incentives. This may be in the way prices are calculated, structured and change to respond to market conditions.

57. Some have even been used before – there was a 90 minute Rule in Queensland whereby generators could not change offered prices (volumes) for commercial reasons with a "gate closure" of 90 minutes before dispatch. The Rule was introduced because there appeared to be some shadow period by which retailers could not dispatch demand side response in the Queensland Interim Market (a transitional market to the NEM). The Predispatch schedules and market systems of the time 1999 were incomplete / inadequate. The 90 minute Rule was a failure as it had the effect of distorting competition, preventing efficient dispatch and increased risks (especially outage risk) for participants.

58. If it is important for the efficient consumption of electricity that the Predispatch schedule be accurate and not subject to manipulation, as presupposed in the Rules by the good faith rebidding requirements, then it may be worthwhile incentivising behaviour that "firms" up the Predispatch schedule. Any incentive based solution would probably be better than a regulatory intervention, which is likely to have unintended consequences, deadweight compliance costs and the potential to distort prices.

59. Options:

    a. No good faith - sandpit for traders to change offers to explore strategies and to hone their offers, prices, etc.

    b. Status quo, the traders are required to submit offers in good faith but if circumstances change can change offered prices;

    c. Sharpened good faith – either with a fixed or rolling "gate closure" possibly 4 hours ahead, or 6 am in the morning (TBD), before the gate closing would be as per 1, after which 2;

d. Predispatch settlement: where participants can offer firm prices, possibly with or without an option premium, which must be honoured if they are accepted by AEMO. These firm prices could include penalties if they are not honoured. Those that fail to settle with AEMO in advance could face being excluded from settlement.

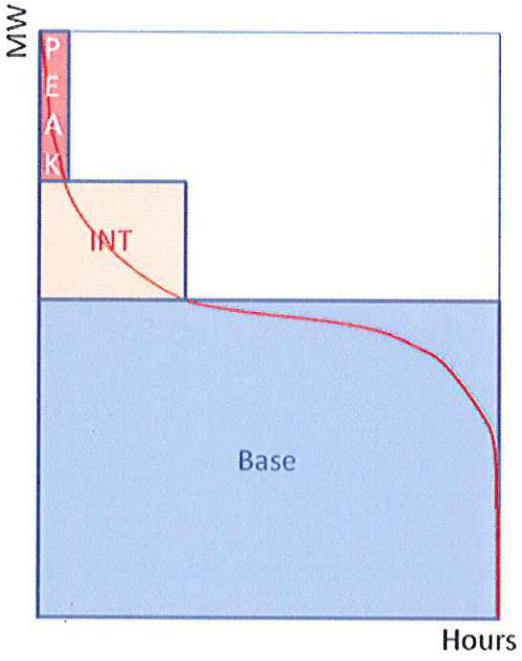
60. Options b and c are regulatory interventions that may stymie competition. Option a may be too open to manipulation, although could allow (due to the lack of regulatory intervention) for the greatest price discovery and therefore more efficient price signals.

61. Option d is a different concept and suggests if a firm Predispatch schedule is of value, it should be paid for. The best way to pay for something is to approach the market for offers. This concept directly opposes the regulatory interventions of options b and c.

**Q6b) Are there any approaches used in electricity markets in jurisdictions overseas that could provide insight into the development of options to address issues raised in the rule change request?**

62. The NEM calculates prices in five minute near to real time market. Given the NEM is energy only market with a price cap used to align with the Reliability Standard, price signals and perceived risks are important for scheduling supply.

63. There are some markets that have no explicit payment for reserve capacity. The argument for not doing so is that in any market the traded price, at the margin, will be set at the point where the demand intersects with the supply curve. Given the electricity market is made up of producers with differing variable costs, the price being set by a producer at the margin will create a profit or "rent" for a cheaper producer below the margin. In the electricity sector these are called "infra[1]-marginal rents".




64. In a perfectly competitive market[2] with the perfect disposition of producer assets the price distribution across the load duration curve will produce the infra-marginal rents that adequately compensate the producers for their fixed costs. This is shown in the following schematic.

65. The split of the market is based by creating a load duration curve, with time (hours) on the x axis and MW on the Y axis. The x axis is "reordered" on the basis of MW with max first. This is the red line.

66. In some markets, such as the NEM, another sector of supply sits above

[1] The definition of infra is "below"
[2] In a perfectly competitive market barriers to entry and exit are non-existent and prices are offered at variable cost

peak, with this being load shedding, prices at the Value of Lost Load or (VOLL). In the NEM instead of VOLL we have a "cost to supply" measure, which is the Market Price Cap. The difference between VOLL, or the price cap and the peak generation variable cost is the infra-marginal rent for that segment of the market and effectively clears the market at times of high demand. This price signal (or risk) provides the incentive to supply the desired reliability. Please note the market need not clear at this price for the incentive to have worked.

67. In this type of market the price distribution is important, as is the risk of reaching the price envelope. It may be considered quite fragile because the price signal to encourage efficient investment may only occur very infrequently, if at all. Therefore any regulatory intervention, such as a restriction on offering prices, may adversely affect long term economic goals – this is because everything relies on the single price calculated in real time.

68. This differs from other pool markets that can calculate prices, both day-ahead and for balancing (as used in USA). The calculation of a price ex-ante, such as day ahead, can be used for payments associated with scheduling enough capacity rather than meeting demand. Once a premium has been paid for capacity the price associated with the dispatch of generators in the pool market can be subject to more regulation and enforcement options because, in theory any such intervention would not damage investor confidence (dynamic efficiency) as this is provided by the prices paid for scheduling capacity.

69. The GB bilateral traded market uses a gate closure, whereby participants can no longer nominate traded volumes, 1 hour and a dispatch period of half an hour. It does have numerous side-arrangements in balancing services to allow the market operator to pay suppliers to schedule capacity ahead, such as reserve capacity payments, option payments for warming up hot standby, buying short dated futures (so the market is long supply). It has imbalance settlement payments that incentivise participants to balance their volumes with their notified trades.

70. The GB market under the EU Directive has obligations equivalent to trading in financial markets on participants, because this is implicitly what the design requires participants to do prior to gate closure. There are significant penalties for participants under the Competition Act and the new Market Abuse Directive (MAD). The obligations are mirrored in some Australian obligations in dealing in derivatives but are not relevant for the trade in electricity through a "physical" pool such as the NEM.