



EnergyAustralia

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Dear Commissioners

Lodged electronically: www.aemc.gov.au (ERC0166)

Bidding in good faith, Options Paper, 18 December 2014

EnergyAustralia welcomes the opportunity to make a submission on the 'bidding in good faith' options paper (the options paper). The rules relating to generator bidding are fundamental to efficient dispatch and risk management in the NEM and we agree with the Commission that proposals to change them require a thorough analysis of the issues, risks and trade-offs.

We did not support the originating rule change proposal. The analysis in the options paper confirms our view that the proposed changes would be likely to reduce the overall efficiency of dispatch and risk management in the NEM. The options paper canvases whether there is a case for the Commission to make a 'more preferable' rule change. We do not think any of the proposed options would lead to a net benefit. No material problem has been identified, the treatment options are not well targeted or proportionate to the theoretical issues identified, and none is likely to lead to a net improvement in the efficiency of dispatch.

EnergyAustralia is one of the country's leading retailers, providing gas and electricity to more than 2.6 million customers. We own and operate a range of generation and storage facilities, including coal, gas and wind assets, in NSW, Victoria and South Australia. We are a market customer in all NEM jurisdictions except Tasmania, and a scheduled generator in NSW, Victoria and SA. We do not own generation in Queensland.

The role of rebidding in an energy only market and identification of the issues

The options paper confirms that dynamic bidding and rebidding is essential to efficient dispatch, price discovery, and risk management in the national electricity market (NEM). The NEM is designed to operate as an energy-only gross pool and the analysis by Professor Yarrow and Dr Decker¹ highlights the particularly vital role of rebidding in an energy only market, where the spot price must inform productive, allocative and dynamic efficiency over the short, medium and long term.

¹ 'Bidding in energy only wholesale electricity markets'. Professor George Yarrow, assisted by Dr Chris Decker. For the AEMC November 2014. <http://www.aemc.gov.au/getattachment/c196404a-e850-46bd-8ae2-41600f8454bb/Bidding-in-energy-only-wholesale-electricity-marke.aspx>

Aspects of the rule change proposal appear to focus excessively on the short term allocative or productive efficiency of dispatch in a few five minute intervals per year. There is an implicit tendency to assume that low price is good, high price is bad, and that a central planner knows what the efficient price should be. As noted by Yarrow and Decker, efficient prices are revealed by the market. They cannot be determined in advance. A central planner could presumably dispatch plant with similar short term productive and allocative efficiency, the advantage of the market lies in optimising efficiency over time (productive, dynamic and allocative).

The options paper identifies two specific circumstances where rebidding may lead to inefficient outcomes.

1. When a generator rebids close to dispatch and technical limitations prevent some generators or demand from responding to the rebid.
2. Where a rebid is part of a strategy of behaviour that is aimed at misleading competitors and promoting false expectations.

In our view the first issue reflects physical and economic reality, and the second is already effectively regulated under the National Electricity Law and Corporations Law.

Materiality of the issues

The analysis commissioned for the options paper confirms that, while there is a theoretical risk that in specific circumstances rebidding close to dispatch may lead to sub-optimal outcomes, there is no material or systemic problem across the NEM².

- The **ROAM** analysis demonstrates there is no evidence of a NEM wide systematic tendency to late rebidding. Recent examples in Queensland, and to a lesser extent in SA, are related to specific structural and market circumstances in those regions, rather than the rebidding rules per se. The events are strongly correlated with high demand and interconnector constraints (low import headroom).
- The **AEMO** analysis demonstrates that late rebids in last 5 minutes do not materially impact annual average prices³ and to the extent there is an impact, the majority of consumption occurs in jurisdictions where the effect of late bidding is to reduce prices.
- The **Oakley Greenwood (OGW)** analysis found no evidence that generator bidding behaviour materially impacts the ability of large users to participate in demand response (DR) over and above scheduled generation. The biggest impediment to DR is the very low wholesale prices in the current market.

² Reports to the options paper available at: <http://www.aemc.gov.au/Rule-Changes/Bidding-in-Good-Faith>

³ AEMO found late bidding affected average prices by less than (0.04c/KWh) and lowered prices in Victorian and NSW. AEMC options paper pg 38.

The theoretical risks identified in the options paper are driven by the fact that one participant inevitably makes the last rebid. The options paper identifies that this may cause inefficient dispatch outcomes if a rebid occurs very close to the dispatch interval when the physical ability of demand and supply to respond is limited. This reflects fundamental physical and economic realities; it cannot be resolved by rule changes.

- There will always be one generator that makes the last rebid and circumstances when other generators cannot respond by rebidding. Early gate closure does not change this dynamic, it just brings this forward.
- The response of demand and supply to market signals will always have some physical or economic inflexibility. Again, early gate closure does not alter the dynamic; it just shifts value from flexible to inflexible generators and DR providers.

The impact of inaccuracies in demand and network constraint formulations on pre-dispatch is materially greater than rebidding, so restricting rebidding will not significantly improve pre-dispatch accuracy. It is also important to recognise that there are efficient commercial strategies available to market participants to manage these market risks.

The repetitive cycle of bidding for over 17,520 half hour cycles per year (105,120 five minute dispatch intervals) provides endless opportunities for learning, prediction and adjustment. Generation can synchronise, or stay online, through low price periods in anticipation of sensitive volatile periods to capture value or ensure the market has sufficient ramping reserves to prevent price spikes.

The most important tool for retailers, generators and other market customers to manage the risk of market volatility is forward contracting. This efficient swapping of risk reduces exposure to short term price volatility, provides important investment signals and creates strong incentives for generators to defend their position. Customers with DR capability can choose to use contracts (directly or through retailers) to manage the risk of high pool prices while still being able to benefit from opportunistic demand response.

Any price spike associated with late rebidding will also have another underlying cause or enabler. The disparity between 5 minute dispatch and 30 minute settlement is a contributor as market participants' 5-min positions do not align with their settlement amounts. The 5/30 discrepancy is a structural issue that gives rise to a complex range of impacts that are beyond the scope of this rule change.

Responding to inaccuracies of pre-dispatch demand and network constraints is a key driver of the need to rebid close to dispatch. Improving the accuracy of pre-dispatch demand and constraint forecasts is an ongoing focus for AEMO and will not be assisted by restricting rebidding.

Options to address the issues

It is important that any regulatory intervention to restrict rebidding is well targeted and proportionate to the problem. There is a significant risk that restrictions will have unintended consequences, reduce overall efficiency and impose costs that exceed any benefit.

The options paper identifies two broad sets of options that may form the basis of a regulatory response to 'strategic' late rebidding.

1. Design of a behavioural statement of conduct, similar to existing good faith provisions.
2. Design of bidding processes, including restrictions on rebidding close to dispatch.

In relation to the design of the behavioural statement, we do not think the case has been made to change the current provision.

We agree with the Commission's intention in considering removing the requirement for a 'material change' from the current good faith clause. As noted by the Commission: 'a generator should be able to change its market offers at any time to reflect a shift in its expectations. However, at the time it makes an offer it should have an intention to honour the offer⁴'. While removing the 'material change' clause may better reflect the economic and policy objective, we believe that the current provision is effective and benefits from being reasonably well understood and having established case law. We are concerned the proposed change would create unnecessary uncertainty and confusion.

We do not support the proposal to replace the existing good faith provisions with another behavioural statement. A complete rewrite of the provision is not warranted and would likely create significant uncertainty during development and implementation. Again, we do not disagree with the Commission's objective, to deter intentionally misleading behaviour, however we believe the existing framework under the Corporations Law and National Electricity Law already appropriately addresses this issue.

In relation to the design of the bidding process, the options paper outlines five levels of restriction that could be applied over four different time intervals. Essentially there is one option: restrict the ability of generators to rebid efficiently to prevent the risk of potentially inefficient rebids in specific circumstances. We do not support any additional restriction on rebidding. If the Commission is minded to impose new restrictions, they should impose the least distortion for the shortest period.

Early gate closure will reduce participants' ability to manage risks in real time and is very likely to reduce the overall efficiency of the market.

- The accuracy of information available to participants is reduced the longer the period between bidding and dispatch. In particular, system demand and network constraints often change significantly close to dispatch.
- Early gate closure is not well targeted to addressing what is in effect a behavioural concern, and may well magnify the impact of structural issues like the 5/30 issue and 'transient market power' by limiting other participants ability to respond.

There is insufficient analysis in options paper to understand the costs and risks associated with the potential options to restrict rebidding. The restrictions would apply to both efficient and inefficient rebidding. The costs and risks of specific restrictions should be quantified and consulted on further if the Commission is minded to explore any in detail.

We do agree with a key aim of the rule proponent: that the accuracy of the pre-dispatch forecast should be improved. We utilise the pre-dispatch forecast provided by AEMO for much of our decision making. There are opportunities to improve the accuracy of pre-dispatch through improving demand forecasting and constraint management. Scheduled generation already provides the highest quality information in the pre-dispatch.

⁴ Options paper page 58

Conclusion

We do not think any of the proposed options would lead to a net benefit. A material problem has not been identified in the market, and there are no regulatory treatment options that are well targeted or proportionate to the theoretical issues identified.

We do strongly support improving the accuracy of pre-dispatch; however the pre-dispatch forecast is not accurate for many reasons unrelated to late rebidding. Materially improving pre-dispatch requires focussed investment to deliver better demand and constraint forecasting.

Further detail on the role of rebidding and the effectiveness of the current regulatory regime is attached. For any questions regarding this submission, please contact me on (03) 86281034.

Regards



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Limitations to efficient dispatch managed by rebidding

Fundamentally the pre-dispatch forecast is not accurate enough to be relied upon for efficient dispatch for many reasons unrelated to late rebidding. Late rebidding can be anticipated and is only one of many factors impacting market information. Swings in demand, constraints, and plant issues all contribute far more to the inaccuracy of market forecasts and changes to participant's positions.

NEMDE will not bring fast start generation online in anticipation of a high price. As generators take time to sync, prudent traders manage risk by rebidding so that generators start before a dispatch interval with tight/supply demand conditions and the possibility of high prices. This means more generation is available at a lower price and generation priced at high prices is not needed.

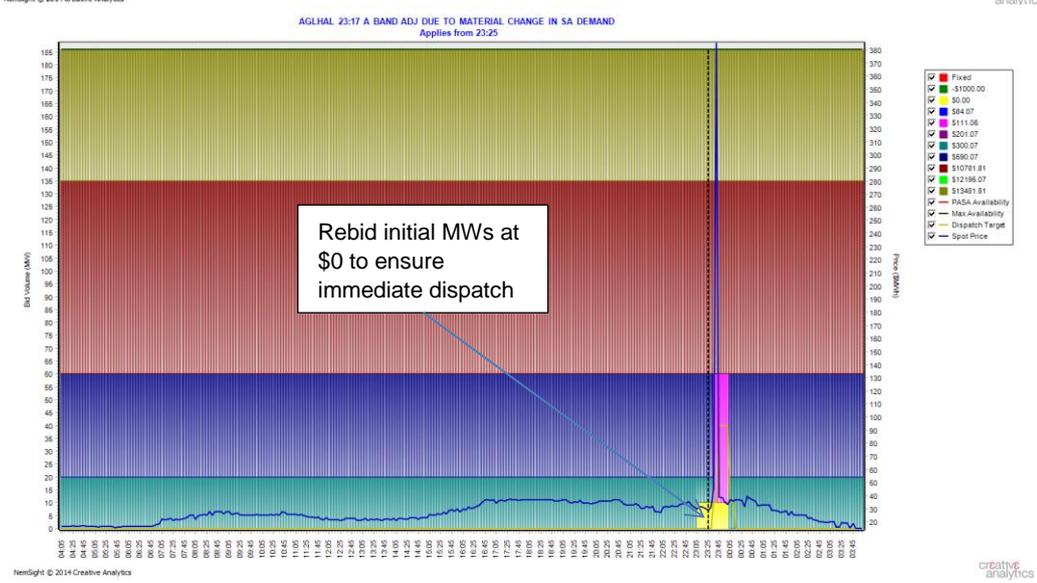
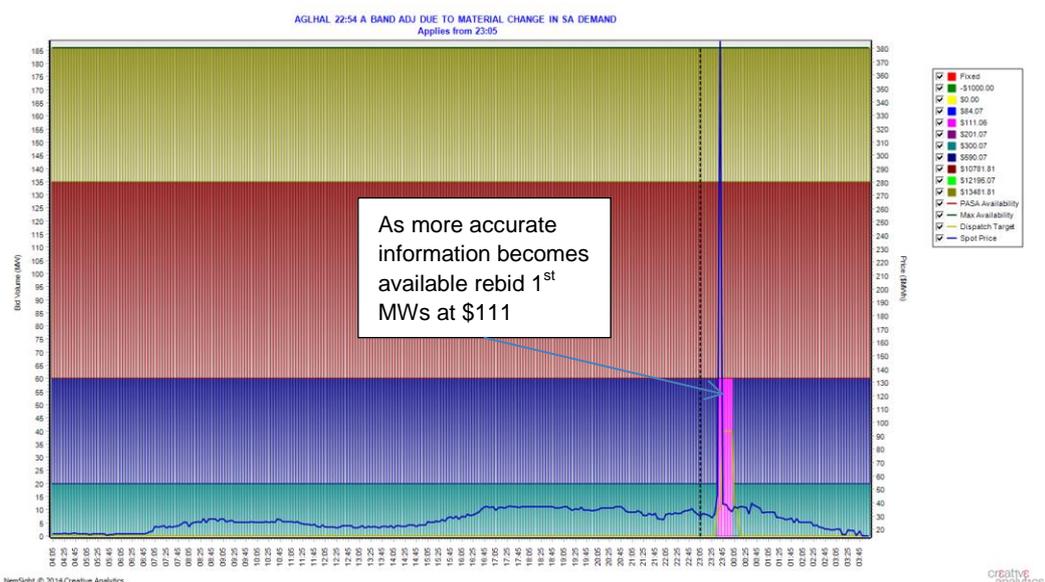
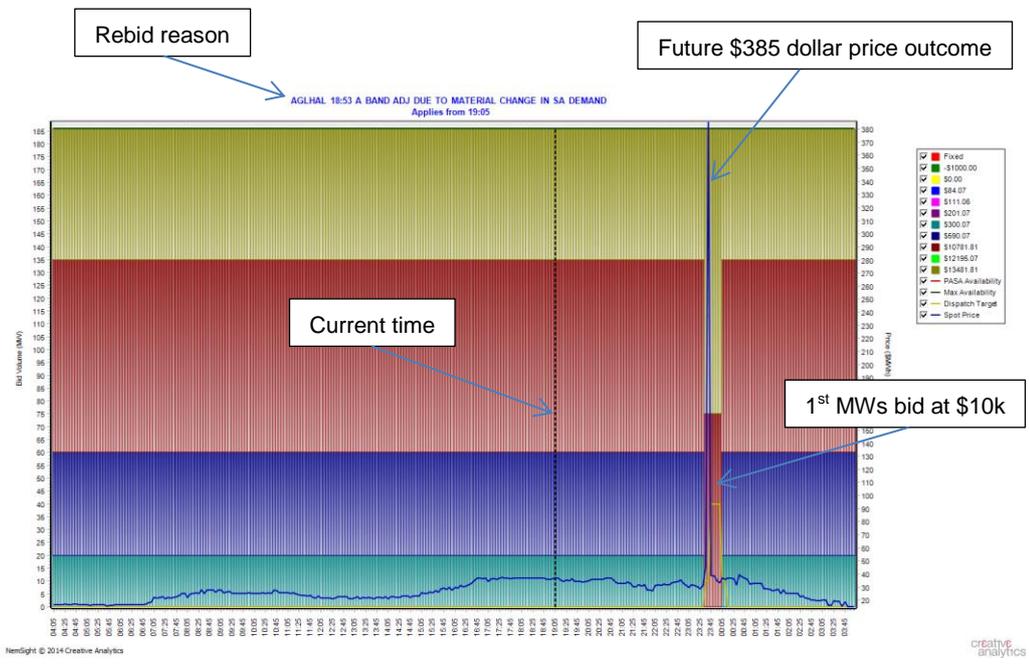
The combined result of forecast inaccuracy and the practicalities of the dispatch process means that traders need to reassess their bids as a more accurate picture of the market emerges with time to optimise their physical dispatch profile as well as their market position. Inaccuracies in the forecast mean rebids are required for the next dispatch interval in anticipation of future prices.

For example, we depend on market information to dispatch Hallett Power Station to optimise our position in SA. In SA the hot water peak can result in unpredictable prices as pre-dispatch demand and price forecasts often differ considerably from the actual result. The behaviour of participants can change, the prevalence of late rebidding may increase or decrease, however this is immaterial relative to the inherent deviations from forecast that will always remain. Restrictions on the 'unwanted' rebidding behaviour will only hamper participants' ability to manage these variations.

Case study: Sunday 28th December 2014, South Australia

The images show actual spot outcome and dispatch targets overlaid on bids as the time approaches the SA hot-water peak.

- 23.15: Pre-dispatch price for period ending 00.00 showing \$30.
- 23.17: Demand tracking above forecast and SA west limit lower than forecast. Price spike becomes a possibility.
With current bids, Hallett would not be online for any price spikes due to start-up time.
Traders rebid Hallett to receive dispatch instructions immediately so generation is available in the event of a price spike.
- 23.40: 5-min price of \$385. Hallett generating 10MW and able to provide ramping capability



Effectiveness of current regulation

The meaning, credibility and intentions of Market participants providing information in the NEM are governed by a matrix of legislation that regulate all markets. This role has not been served by the good faith bidding provisions alone.

NER 3.1.4 (b) states Chapter 3 is not intended to regulate anti-competitive behaviour by Market Participants which, *as in all other markets*, is subject to the relevant provisions of the Competition and Consumer legislation. This covers

- unconscionable or dishonest conduct;
- false or misleading or deceptive or artificial statements pricing, conduct or transactions; and
- insider trading

This underpins the existing NEL and NER relating to provision of misleading and deceptive information. We consider that the Options Paper downplays the significance of the NEL, NER and associated AER guidelines in governing bidding behaviour.

At present NER 3.8.22(c)(3) and associated AER Rebidding and Technical Parameters Guideline prescribe rebid substantiation and verification requirements. AER can seek additional information on rebids if it becomes aware that the information provided was not accurate. Furthermore, if a participant adduces a change to a commercial arrangement as a reason for a rebid, the AER may seek details of those commercial arrangements to verify the reason for the rebid.

In addition AER may require the production of information under section 28 of the NEL. This section contains a prohibition on providing information that is false or misleading in any material particular.

A summary of the relevant provisions is attached to emphasise the current strong foundation on which sound conduct is based and against which behaviour can be assessed for compliance by relevant regulators.

3.1.4 Market design principles	(b) This Chapter is not intended to regulate anti-competitive behaviour by Market Participants which, as in all other markets, is subject to the relevant provisions of the Competition and Consumer Act 2010 (Cth) and the Competition Codes of participating jurisdictions.
3.7.1 PASA	(a) AEMO must administer medium term and short term projected assessment of system adequacy processes to be known as PASA. (b) The PASA is a comprehensive program of information collection, analysis, and disclosure of medium term and short term power system security and reliability of supply prospects so that Registered Participants are properly informed to enable them to make decisions about supply, demand and outages of transmission networks in respect of periods up to 2 years in advance.... on a weekly basis
3.7.2 MT PASA	d) The following medium term PASA inputs must be submitted by each relevant Scheduled Generator or Market Participant in accordance with the timetable: (1) PASA availability of each scheduled generating unit, scheduled load or scheduled network service for each day taking into account the ambient weather conditions forecast at the time of the 10% probability of exceedance peak load (in the manner described in the procedure prepared under paragraph (g)); and (2) weekly energy constraints applying to each scheduled generating unit or scheduled load. Note 1 (e) Network Service Providers must provide to AEMO an outline of planned network outages in accordance with the timetable and provide to AEMO any other information on planned network outages that is reasonably requested by AEMO....Note 1
3.7.3 ST PASA	(a) The short term PASA must be published at least daily by AEMO in accordance with the timetable. (b) The short term PASA covers the period of six trading days starting from the end of the trading day covered by the most recently published pre-dispatch schedule with a trading interval resolution..... (e) The following short term PASA inputs must be submitted by each relevant Scheduled Generator and Market Participant in accordance with the timetable and must represent the Scheduled Generator's or Market Participant's current intentions and best estimates: (1) available capacity of each scheduled generating unit, scheduled load or scheduled network service for each trading interval under expected market conditions; Note 1 (g) - repeat of 3.7.2 (e) above Note 1 (j) AEMO must document the procedure it uses for preparation of the short term PASA and make it available to all Registered Participants on a cost recovery basis
3.7A Network Congestion	(a) The objective of the congestion information resource is to provide information in a cost effective manner to Registered Participants to enable them to understand patterns of network congestion and make projections of market outcomes in the presence of network congestion (the congestion information resource objective). (l) AEMO must develop and publish the first congestion information resource guidelines in accordance with the Rules consultation procedures by 1 September 2010 and there must be a set of congestion information resource guidelines available and up to date at all times after that date. (o) If there has been a material change to the information provided by a Transmission Network Service Provider under paragraph (n), the Transmission Network Service Provider must provide AEMO with the revised information as soon as practicable.
3.8.2 Participation in Central Dispatch	(a) A Generator must submit generation dispatch offers in respect of its scheduled generating units or semi-scheduled generating units (as the case may be) for each trading day in accordance with clause 3.8.6. Note 1 (b) Generation dispatch offers for a scheduled generating unit must include a specified self-dispatch level and may include prices and MW quantities for increased or decreased levels of generation above or below this self-dispatch level. Note 1 (b1) A Scheduled Network Service Provider must submit network dispatch offers in respect of each of its scheduled network services for each trading day in accordance with clause 3.8.6A Note 1 (c) Subject to clause 3.8.2(d), dispatch bids may be submitted by Market Participants in respect of scheduled loads, in accordance with clause 3.8.7, and may specify prices and MW quantities for any trading interval either for reductions or increases in load.
3.8.4 Notification of Scheduled Capacity	All Scheduled Generators and Market Participants with scheduled generating units, scheduled network services and/or scheduled loads must inform AEMO of their available capacity as follows in accordance with the timetable: (a) Scheduled Generators and Market Participants must notify AEMO of the available capacity of each scheduled generating unit, scheduled network service and/or scheduled load for each trading interval of the trading day; Note 1 (b) subsequent changes may only be made to the information provided under clause 3.8.4(c), (d) and (e) in accordance with clause 3.8.22; Note 1 (c) for Scheduled Generators, two days ahead of each trading day: (1) a MW capacity profile that specifies the MW available for each of the 48 trading intervals in the trading day; (2) estimated commitment or decommitment times; (3) daily energy availability for energy constrained generating units; and (4) an up ramp rate and a down ramp rate;

<p>3.8.4 Notification of Scheduled Capacity (continued)</p>	<p>Note 1 (d) for scheduled loads, two days ahead of each trading day: (1) a MW capacity profile that specifies the MW available for dispatch for each of the 48 trading intervals in the trading day; (2) daily energy availability for energy constrained scheduled load; and (3) an up ramp rate and a down ramp rate; Note 1 (e) for scheduled network services, two days ahead of each trading..... Note 1</p>
<p>3.8.5 Submission Timing</p>	<p>(a) To be valid for inclusion in the central dispatch process, a dispatch bid or dispatch offer or market ancillary service offer must be submitted according to the timetable. (b) Subject to clause 3.8.22, changes to the: (1) MW quantities in the dispatch bids; (2) MW quantities and off-loading prices in the generation dispatch offers; and (3) MW quantities in the network dispatch offers, may be made after the relevant deadline in the timetable.</p>
<p>3.8.6</p>	<p>Generating unit offers for dispatch</p>
<p>3.8.6A</p>	<p>Scheduled network service offers for dispatch</p>
<p>3.8.7</p>	<p>Bids for scheduled load</p>
<p>3.8.7A Market ancillary services offers</p>	<p>(l) the values associated with a <i>market ancillary service offer</i> referred to in clause 3.8.7A(j) must represent technical characteristics of the <i>ancillary service generating unit or ancillary service load</i>; Note 1 (m) rebids made under clause 3.8.22 of the values associated with the <i>market ancillary service offer</i> referred to in clause 3.8.7A(j) must represent technical characteristics at the time of <i>dispatch</i> of the <i>ancillary service generating unit or ancillary service load</i>. Note 1</p>
<p>3.8.8 Validation of dispatch bids and offers</p>	<p>(b) It is the responsibility of each <i>Scheduled Generator, Semi-Scheduled Generator and Market Participant</i> to check that the data contained in its <i>dispatch offer, dispatch bid or market ancillary service offer</i> as received and to be used by AEMO in the <i>central dispatch</i> process is correct. Note 1</p>
<p>3.8.10 Network constraints</p>	<p>(a) In accordance with the AEMO power system security responsibilities and any other standards set out in Chapter 4, AEMO must determine any constraints on the dispatch of scheduled generating units, semi-scheduled generating units, scheduled network services, scheduled loads, ancillary service generating units or ancillary service loads which may result from planned network outages.</p>
<p>3.8.20 Pre-dispatch schedule</p>	<p>(a) Each day, in accordance with the timetable, AEMO must prepare and publish a pre-dispatch schedule covering each trading interval of the period commencing from the next trading interval after the current trading interval up to and including the final trading interval of the last trading day for which all valid dispatch bids and dispatch offers have been received in accordance with the timetable and applied by the pre-dispatch process.</p>
<p>3.8.22 Rebidding</p>	<p>(g) Each Scheduled Generator, Scheduled Network Service Provider and Market Customer which has classified a scheduled load and Market Participant (which has classified an ancillary service generating unit or ancillary service load) must ensure that it is able to dispatch its plant as required under the pre-dispatch schedule and is responsible for changing inputs to the central dispatch process, if necessary to achieve this, via the rebidding provisions under clause 3.8.22. Note 1</p>
<p>3.8.22 Rebidding</p>	<p>h) The pre-dispatch schedule must be re-calculated and the results re-published by AEMO regularly in accordance with the timetable, or more often if a change in circumstances is deemed by AEMO to be likely to have a significant effect on the operation of the market.</p>
<p>3.8.22 Rebidding</p>	<p>(a) Prices for each price band that are specified in dispatch bids, dispatch offers and market ancillary service offers are firm and no changes to the price for any price band are to be accepted under any circumstances. (b) Subject to paragraph (c) and clauses 3.8.3A, 3.8.7A, 3.8.19(a) and 3.8.22A, a Scheduled Generator, Semi-Scheduled Generator or Market Participant may vary: (1) its available capacity, daily energy constraints, dispatch inflexibilities and ramp rates of generating units, scheduled network services and scheduled loads; and (2) the response breakpoints, enablement limits and response limits of market ancillary services. (c) A Scheduled Generator, Semi-Scheduled Generator or Market Participant must provide: (1) all rebids to AEMO electronically unless otherwise approved by AEMO Note 1; (2) to AEMO, at the same time as the rebid is made: (i) a brief, verifiable and specific reason for the rebid; and (ii) the time at which the event(s) or other occurrence(s) adduced by the relevant Generator or Market</p>

	<p>Participant as the reason for the rebid, occurred Note 1; and (3) to the AER, upon written request, in accordance with guidelines published by the AER from time to time under this clause 3.8.22 and in accordance with the Rules consultation procedures, such additional information to substantiate and verify the reason for a rebid as the AER may require from time to time. Note 1</p> <p>The AER must provide information provided to it in accordance with paragraph (c)(3) to any Scheduled Generator, Semi-Scheduled Generator or Market Participant that requests such information, except to the extent that the information can be reasonably claimed to be confidential information.</p> <p>(e) The guidelines developed by the AER under paragraph (c)(3) must include: (1) the amount of detail to be included in the information provided to AEMO under paragraph (c)(2); and (2) procedures for handling claims by Scheduled Generators, Semi-Scheduled Generators or Market Participants in accordance with paragraph (d) or clause 3.8.19(b)(2) that the information provided to the AER by such Generators or Market Participants under those clauses is confidential information.</p>
<p>3.8.22 A Variation of Offer, Bid or Rebid</p>	<p>(a) A Scheduled Generator, Semi-Scheduled Generator or Market Participant must make a dispatch offer, dispatch bid or rebid in relation to available capacity and daily energy constraints in good faith.</p> <p>(b) In paragraph (a) a dispatch offer, dispatch bid or rebid is taken to be made in good faith if, at the time of making such an offer, bid or rebid, a Scheduled Generator, Semi-Scheduled Generator or Market Participant has a genuine intention to honour that offer, bid or rebid if the material conditions and circumstances upon which the offer, bid or rebid were based remain unchanged until the relevant dispatch interval.</p> <p>(c) A Scheduled Generator, Semi-Scheduled Generator or Market Participant may be taken to have contravened paragraph (a) notwithstanding that, after all the evidence has been considered, the intention of the relevant Generator or Market Participant is ascertainable only by inference from: (1) the conduct of the relevant Generator or Market Participant; (2) the conduct of any other person; or (3) the relevant circumstances.</p> <p>Note 2</p>
<p>Civil Penalty Note 1</p>	<p>Note 1 This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.) Civil penalty means— (a) in the case of a breach of a civil penalty provision (other than a rebidding civil penalty provision) by— (i) a natural person— (A) an amount not exceeding \$20 000; and (B) an amount not exceeding \$2 000 for every day during which the breach continues; or (ii) a body corporate— (A) an amount not exceeding \$100 000; and (B) an amount not exceeding \$10 000 for every day during which the breach continues;</p>
<p>Civil Penalty Note 2</p>	<p>Note This clause is a rebidding civil penalty provision for the purposes of the National Electricity Law. (See clause 6(2) of the National Electricity (South Australia) Regulations.)</p> <p>Civil penalty means— (b) in the case of a breach of a rebidding civil penalty provision by any person— (i) an amount not exceeding \$1 000 000; and (ii) an amount not exceeding \$50 000 for every day during which the breach continues; rebidding civil penalty provision means a provision of the Rules that is prescribed by the Regulations to be a rebidding civil penalty provision;</p>