

Australian Energy Market Commission

DRAFT RULE DETERMINATION

National Electricity Amendment (Bidding in Good Faith) Rule 2015

Rule Proponent(s)

Minister for Mineral Resources and Energy (South Australia)

17 September 2015

**RULE
CHANGE**

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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Summary of second draft rule determination

The Australian Energy Market Commission (AEMC or Commission) has made a second draft rule which is a more preferable rule to enhance the arrangements that govern the manner in which generators offer electricity to the wholesale market.

The more preferable draft rule would amend the relevant provisions in the National Electricity Rules (NER) as follows:

- The current requirement that offers be made in good faith would be replaced by a prohibition against making false or misleading offers. False or misleading offers include those where a participant makes an initial offer, forms the intention to change that offer by rebidding, but deliberately delays making the rebid.
- Therefore, the Commission would introduce a new requirement that any variations to offers be made as soon as practicable after a change in material circumstances and conditions.
- Additional requirements to record information would be introduced for variations to offers made close to dispatch.

The Commission considers that these revised requirements would be likely to lead to more efficient wholesale price outcomes in the short term, and create investment signals that better reflect underlying conditions of supply and demand, in the long term interests of consumers. They would make it easier for the AER compared to the current arrangements to take enforcement action in respect of deliberate late rebidding, but should not prevent rebidding in legitimate pursuit of commercial interests including for price discovery purposes.

The rule change request

In order to participate in the National Electricity Market (NEM), generators submit offers to the Australian Energy Market Operator (AEMO) specifying the prices at which they would be willing to generate given quantities of electricity. Generators may subsequently revise these offers through the submission of “rebids” in order to shift the quantities they are willing to offer between these different price bands.

The current provisions in the NER require that participants make all offers, bids and rebids in good faith.¹ An offer will be made in good faith if, *at the time of making the offer*, the generator has a genuine intention to honour that offer if the material conditions and circumstances upon which the offer is based remain unchanged.

The rule change request was made by the South Australian Minister for Mineral Resources and Energy, and proposes:

- recast the existing good faith provisions in the negative such that generators would be required to demonstrate what material circumstances had changed as the basis for their rebid;

¹ Wholesale market participants are generators and scheduled loads. Generators make offers and loads make bids. Both make rebids when they vary their initial offer or bid.

- only permit rebids on the basis of a significant, objective and quantifiable changes in circumstances, and to make all rebids as soon as practicable; and
- require generators to provide the Australian Energy Regulator (AER) with accurate and complete data and information on request to substantiate compliance.

Potential inefficiencies associated with rebidding

Spot price volatility is inherent to the wholesale electricity market and reflects underlying characteristics of the power system. The quality of information on which expectations are formed and decisions are made is degraded if some wholesale market participants, under certain conditions, are able to systematically manipulate wholesale price outcomes, by deliberately delaying rebids. Such information includes:

- AEMO's pre-dispatch forecast, which informs expectations of spot prices; and
- contract prices, which are based in part on spot price expectations.

Uncertainty is normal and inevitable in the wholesale electricity market. Innate risks in the power system – transmission or power station outages, other participants' behaviour, unforeseen changes in demand – are reflected in price movements, particularly when these things move in a way that was unexpected. Being exposed to sudden price movements is therefore an inherent aspect of participating in the spot market.

Rebidding by participants, including rebids made very close to the time of dispatch, is a necessary component of the market. Rebidding provides generators with the flexibility to adjust their position to accommodate changes in market conditions and to respond to the offers or bids of other participants.²

These risks are inherent to the market. There are unexpected events, and one (or a few) generators make the last rebid for any given dispatch interval. In the short-term, participants make the best decisions they can in light of the available information and their capabilities. The resulting prices – reflective of short-term constraints – create signals for longer-term operational, investment and disinvestment decisions of both major consumers and generators. The dynamic process of participants learning and reacting to the actions of their competitors, and to the inherent volatility of the system, is an important part of a well-functioning market.

However, problems arise when deliberately late rebids are systematically used by some participants to withhold information from the market.

There are two key forms of harm caused by deliberate late rebidding.

First, systematic distortions to price outcomes will decrease confidence in the forward information provided to the market. A loss of confidence in the reliability of information – including AEMO's pre-dispatch forecast – can have significant consequences over time.

² Over the last five years, AEMO has received between 6 and 8 million rebids annually across the NEM.

For instance, large industrial users that buy directly from the wholesale market may be faced with non-forecast price shocks – beyond those that are innate to the system. A continued period of non-economic production may harm their long-term prospects, and will deter other electricity users from investing in regions that are prone to deliberate late rebidding.

Secondly, there are consequences for the contract market. The inability of some generators, such as fast-response plant, to respond to deliberate late rebids can affect the prices and availability of hedge products to the market. For instance, if generators are unable to start in time to back their contracts, the availability of cap contracts that could otherwise protect large electricity users from high spot prices will be affected.

Moreover, if the generator that is engaging in deliberate late rebidding is able to vary its production such that it can back its own contracts, it may be able to effectively compel other generators and large electricity users to buy its contracts (at a higher than normal price due to the increased spot market volatility) or be exposed to the spot prices that the generator is manipulating to be higher than normal.

Generators and large electricity users choose between exposing themselves to the spot market and entering into hedge contracts to protect themselves from spot price volatility. The quality of these trade-offs reflects the quality of the information on which they are made.

These distortions may also affect retail competition: if retailers cannot access competitively priced contracts to manage their spot market exposure, they may be reluctant to participate in regions that are affected by deliberate late rebidding.

In addition, as a result of systematic distortions to pre-dispatch information, higher cost generation may be dispatched ahead of lower cost plant. Competitive demand response may not have sufficient time to change output. The cost to produce electricity will then be higher than it would otherwise have been. The reduced transparency and predictability of spot prices may limit participation in the market, damaging competitive pressures on price outcomes.

Consumers are likely to bear some of the resulting costs – unnecessary operating costs on the part of generators, lost value of production on the part of large electricity users, contract market and spot price premiums and, potentially, the consequences of poor investment decisions that are made in the light of distorted information.

Materiality of the issues identified

Different participants have reached a range of conclusions as to the existence and the materiality of contract market impacts caused by deliberate late rebidding. This is unsurprising, given that the experience of late rebidding varies between regions of the NEM.

In order to assess the materiality of the issues raised, the Commission has undertaken both qualitative and quantitative analysis. In particular, in late 2014 the Commission engaged ROAM Consulting to undertake a statistical analysis of the nature of rebidding activity in the NEM, including quantity, timing, direction and seasonality of rebids for each NEM region. This analysis has now been updated to cover the period to the end of 2014. In late 2015, the Commission engaged Ernst & Young to undertake a statistical

analysis of the relationship between price volatility, late rebidding and contract market prices and traded volumes for each NEM region over the period from 2007 to the first two quarters of 2015.

The Commission also engaged Oakley Greenwood to conduct an assessment of the extent to which generator bidding behaviour impacts on the ability of large users in the NEM to engage in demand-side participation.

The work undertaken by Ernst & Young indicates that deliberate late rebidding behaviour has had a significant consequential effect on the prices of financial hedge contracts. In effect, some participants are paying a premium on contract market products in order to manage the price volatility that arises from deliberate late rebidding. This is estimated to have added around eight dollars per megawatt hour to the price of caps Queensland in the final quarter of 2014, and around seven dollars per megawatt hour in the first quarter of 2015. Across the market, this represents additional expenditure of approximately \$170 million. While a number of assumptions have gone into calculating this figure, it serves as a guide to the order of magnitude of the impact on the contract market. A detailed discussion of this analysis is provided in **Appendix B.2**. The Ernst & Young report also provides quantitative support for the proposition that late rebidding impacts have differed between regions of the NEM.

The work undertaken by ROAM and Oakley Greenwood suggests that since 2007 the occurrence of late rebidding, and timing of rebids towards the end of trading intervals, has been a recent phenomenon, occurring within the last two years and predominantly in Queensland and to some extent in South Australia.

Although late rebidding often has a role to play in responding to forecast price spikes and reducing anticipated market volatility, recent behaviour in Queensland has resulted in price spikes, specifically towards the end of 30-minute trading intervals.³

While offers apply to a whole 30-minute trading interval, rebids can be made during the trading interval and these affect the remaining 5-minute dispatch interval(s). Therefore, rebids made towards the end of a trading interval, to which other generators and consumers have difficulty in responding, can have the effect of significantly increasing the price in the final dispatch interval. Further, due to the settlement price being the average of that for the six dispatch intervals forming the trading interval, price changes in the final dispatch interval will apply to all energy consumed over the trading interval.

The second draft rule

The Commission considers that the current rules do not set adequate boundaries on the ability of some participants to influence price outcomes to the detriment of others. This is not reflective of an efficient market.

However, the Commission also recognises that the issues have not manifested until recently or in all regions of the NEM, and that the resulting price outcomes may also be a function of market structure. The Commission considers that rules are not an effective means to compensate for a non-competitive industry structure.

³ See Appendix B.1.

The Commission has consequently decided to make a second draft rule which is a more preferable draft rule that would reduce the deficiencies in the current market framework, while remaining proportionate to the materiality of the issues

The current rules require that, when an offer or rebid is made, it must be made in good faith. Therefore, providing an intention to rebid is formed after the submission of the initial offer, deliberately delaying making such a rebid until close to dispatch, in order to limit the opportunity for potential responses from other participants, is not clearly counter to the existing rules. At the time it is submitted, a late rebid is made in good faith in that the generator has a genuine intention to honour it.

Consequently, the Commission's second draft rule seeks to recast generators' offers as a representation of their willingness to provide supply at the prices specified in them.⁴ The making of an offer or rebid is deemed to represent to other market participants that the offer or rebid will not be changed unless the generator becomes aware of a change in the material conditions and circumstances upon which the offer or rebid is based. As such, any rebid made to vary an offer to supply the market would need to be made as soon as practicable after the generator has become aware of the change in material conditions and circumstances so that the original offer does not become misleading with respect to the generator's intentions.⁵

Compared to the requirement in the current rules that offers be made in good faith, the obligation in the second draft rule not to make false or misleading offers would establish a more objective basis through which the AER, and subsequently a court, would be able to infer a generator's intent either from an individual offer or from a pattern of behaviour over time. This would assist with the interpretation of and practical application of the rules.

The second draft rule would also introduce new information recording requirements for rebids made close to dispatch. For each rebid made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies, the rebidding generator would need to make and keep a contemporaneous record including the material conditions and circumstances giving rise to the rebid, the generator's reasons for making the rebid, the time at which the relevant event occurred, and the time at which the generator first became aware of the event.

These late rebidding records would provide an additional source of contemporaneous information to the AER regarding rule compliance at times when rebidding has a higher probability of resulting in inefficient market outcomes. Importantly, this new requirement would not restrict in any way the ability of generators to make rebids at any point in the bidding process, and therefore should not inhibit the achievement of efficient market outcomes.

Oakley Greenwood's analysis of the compliance costs of either reporting or recording late rebids finds that:

⁴ Throughout this document references to generators' offers and rebids apply to all market participants who can make offers or bids, including scheduled loads.

⁵ The provisions of the second draft rule would apply to all offers, bids and rebids and not just to changes in available capacity and daily energy constraints (which the existing good faith bidding provisions are restricted to).

1. A requirement to record all late rebids would be cheaper to implement than the obligation to report all late rebids to the AER.
2. The costs to generators would depend in part on the quality of their existing systems.⁶

The Commission finds that these costs are small in comparison to the economic harm which the rule change seeks to address.

Overall, given that the materiality of the problem is different in different jurisdictions, the Commission has taken a measured approach to the changes that are made to the rules.

Comparison with the first draft rule

The Commission has prepared this second draft rule to address concerns that the first draft rule would not give the AER sufficient ability to take enforcement action, compared to the current arrangements, and to reduce the potential compliance burden on market participants. It differs from the first draft rule in the following respects:

- A new paragraph has been inserted to define what is represented to the market when a bid or offer is made.
- The conditions under which an offer will be deemed to be false, misleading or likely to mislead have been altered. Under the first draft rule, the AER would have been required to prove both that the generator did not have a genuine intention to honour the offer, and that the generator did not have a reasonable basis to represent that they would honour that offer if material conditions and circumstances remained unchanged. Under the second draft rule, either one of these conditions is sufficient for an offer to be deemed to be false and misleading. This change addresses concerns raised by the AER that the first draft rule formulation would be overly difficult to enforce.
- The obligation under the first draft rule for generators to rebid as soon as reasonably practicable after becoming aware of the change in material conditions and circumstances has been replaced by an obligation to rebid as soon as is practicable. “Practicability” already requires an enquiry as to what could reasonably be done in the circumstances.
- The obligation under the first draft rule for generators to provide a report to the AER of all rebids made within the final 15 minutes before the commencement of the relevant trading interval has been replaced by an obligation for generators to preserve a contemporaneous record of the information pertaining to rebids made during this period. This change addresses concerns raised by participants that the compliance burden imposed by a reporting requirement was inefficient, while still providing the AER with sufficient information to scrutinise the conduct of concern.
- The requirement that, as a mandatory relevant consideration, a court must have regard to whether a rebid was made in sufficient time to allow other participants a

⁶ See Appendix C.

reasonable opportunity to respond, has been replaced by a requirement that the court must have regard to the importance of rebids being made in sufficient time to allow other participants a reasonable opportunity to respond. This change is in response to confusion amongst participants as to whether they would be required to consider their competitors' ability to respond before making a rebid.

The Commission considered it necessary to amend the first draft rule in light of issues presented in submissions on the first draft determination and at the stakeholder forum.

Comparison with the proposed rule

The Commission's second draft rule adopts a number of elements of the rule proposed by the South Australian Minister for Mineral Resources and Energy, in particular the requirement that any rebids made to vary an offer to supply the market would need to be made as soon as practicable after the generator becomes aware of the change in material conditions and circumstances on the basis of which the rebid is made.

Both the proposed rule and the second draft rule include a provision to allow a contravention of the rules to be assessed by having a regard to the bidding behaviour of all generating units which the participant has substantial control over. The second draft rule would add a further provision to allow patterns of conduct, such as repeated rebidding late in trading intervals, to be considered.

However, the Commission has not adopted the proposals in the rule change request to cast the good faith provisions in the negative or to exclude the non-fulfilment of subjective expectations as a change in material circumstances that could justify a rebid or further rebid.

Recasting the current provisions in the negative would significantly increase the regulatory burden on participants and could also raise the possibility that a generator may be found to have breached the good faith requirement because it failed to keep satisfactory records and to provide them to any proceeding, despite the fact that it may have actually had a genuine intention to honour its offer.

The Commission considers that the proposal to only permit rebids on the basis of objective changes in market circumstances would be likely to reduce the efficiency of market outcomes. It is not the change in market conditions that triggers generators to adjust their position but rather the change in their expectations (and their expectations of other generators' expectations). As such, a rebid based on an expectation that does not eventuate may be equally as valid in arriving at an efficient outcome as a rebid based on an objectively observable change in market conditions. Efficient prices are revealed through the iterative process of bidding and rebidding, as participants adjust their price and volume offers in light of evolving information on their own market position and that of their competitors. In a competitive market, this price discovery process should lead to optimal market outcomes.

The Commission welcomes submissions on this second draft determination, including the more preferable draft rule, by **29 October 2015**.

Summary comparison of market conduct provisions

Current rule	Rule proposed by the South Australian Government	Commission's first draft rule	Commission's second draft rule (changes from first draft rule)
Participants must make offers, bids and rebids in good faith	Participants must make offers, bids and rebids in good faith	Participants must not make offers, bids or rebids that are false, misleading or likely to mislead	No change from first draft rule
No specific definition of what an offer or rebid is deemed to represent	No specific definition of what an offer or rebid is deemed to represent	No specific definition of what an offer or rebid is deemed to represent	An offer or rebid is deemed to represent to other participants through the pre-dispatch schedules, that the offer or rebid will not be changed unless the participants becomes aware of a change in the material conditions and circumstances upon which the offer or rebid is based
An offer or rebid will be taken to be made in good faith if, at the time of making the offer or rebid, the participant has a genuine intention to honour that offer if the material conditions and circumstances upon which the offer is based remain unchanged	An offer or rebid would be taken not to be made in good faith unless, at the time of making the offer or rebid, the participant had a genuine intention to honour that offer or rebid if the material circumstances remain unchanged	An offer or rebid would be deemed to be misleading if, at the time of making the offer or rebid, the participant does not have a genuine intention to honour, <u>and</u> does not have a reasonable basis to represent that it will honour, that offer or rebid if the material conditions and circumstances upon which the offer or rebid are based remain unchanged until the relevant dispatch interval	The word 'and' in this clause has been changed to 'or'.
No specific obligations on timing	A variation to an offer or rebid must be made as soon as practicable after a change in material circumstances comes to the participant's attention	If a participant changes its intentions for dispatch, and wishes to make a rebid to reflect those changed intentions, the participant must make the rebid <u>as soon as reasonably practicable</u> after it becomes aware of	The obligation to rebid as soon as reasonably practicable has been replaced with an obligation to rebid as soon as practicable.

Current rule	Rule proposed by the South Australian Government	Commission's first draft rule	Commission's second draft rule (changes from first draft rule)
		the change in the material conditions and circumstances on the basis of which it decides to vary its offer or bid	
No specific limitations on the material conditions and circumstances that may give rise to a rebid	A variation to an offer or rebid must not be made unless it is in response to a significant, objective and quantifiable change in relevant circumstances	No specific limitations on the material conditions and circumstances that may give rise to a rebid	No change from first draft rule
No specific information or reporting requirements	Participants to provide the AER with accurate and complete data and information on request to substantiate compliance with the rule	For each rebid made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies, the rebidding participant must provide a report to the AER setting out in detail the reasons for making the rebid at that time	The obligation to provide reports on rebids made during the last 15 minutes before the commencement of the trading interval has been replaced by an obligation to preserve a contemporaneous record setting out the material conditions and circumstances giving rise to the rebid, the participant's reasons for making the rebid, the time at which the relevant event occurred, and the time at which the participant first became aware of the event.

Contents

1	The South Australian Government's rule change request	1
1.1	The rule change request	1
1.2	Rationale for rule change request	1
1.3	Solution proposed in the rule change request.....	2
1.4	The Commission's rule making process to date	2
1.5	Status of second draft determination	3
1.6	Consultation on the second draft determination.....	3
2	Second draft rule determination	5
2.1	Rule making test.....	6
2.2	Assessment framework	6
2.3	The Commission's second draft rule determination	7
2.4	Strategic priority.....	11
3	Efficient price discovery and late rebidding	12
3.1	The role of rebidding in the NEM.....	12
3.2	Market inefficiencies caused by late rebidding.....	15
3.3	The materiality of late rebidding in the NEM.....	23
4	A behavioural statement of conduct	33
4.1	Bidding behaviour and participant intention	33
4.2	The South Australian Government's rule change request.....	37
4.3	The first draft rule	42
4.4	Overview of the second draft rule	44
4.5	Reasons for the Commission's changes to the good faith provisions	49
4.6	Application of the second draft rule.....	52
5	Contemporaneous recording of information for rebids made close to dispatch	54
5.1	South Australian Government's rule change request and first draft rule	54
5.2	Additional regulation of late rebidding	54
5.3	Stakeholder submissions.....	56
5.4	The second draft rule.....	59
5.5	Application of the second draft rule.....	64
	Abbreviations	66
A	Legal requirements under the NEL	67
A.1	Draft determination	67
A.2	Power to make the rule	67
A.3	Commission's considerations	67
A.4	Power to make a more preferable rule.....	67
A.5	Civil penalty provision.....	68

A.6	Others	68
B	The materiality of late rebidding in the NEM.....	69
B.1	Late rebidding and the effect on pool price outcomes.....	69
B.2	Late rebidding and the effect on contract market outcomes.....	76
B.3	The impact of late rebidding on the ability of participants to respond	82
C	Compliance costs.....	90
C.1	Key findings.....	90
C.2	Methodology.....	91
C.3	Results from the assessment.....	93
D	Background to the rule change request	96
D.1	Rebidding in the NEM	96
D.2	History of the rebidding rules.....	96
D.3	The good faith provisions	98
D.4	The Federal Court case - AER v Stanwell	99
E	Regulations in overseas jurisdictions	101
E.1	Behavioural standards of conduct	101
E.2	Gate closure	103
F	Summary of issues raised in submissions on the Consultation Paper.....	106
G	Summary of issues raised in submissions on the Options Paper.....	120
H	Summary of submissions on the first draft determination	134

1 The South Australian Government's rule change request

1.1 The rule change request

On 17 December 2013, the South Australian Minister for Mineral Resources and Energy (South Australian Government) submitted a rule change request to the Australian Energy Market Commission (AEMC or Commission) proposing changes to the provisions in the National Electricity Rules (NER) that require generators to bid in good faith.⁷

The NER requires that generators make all offers, bids and rebids in good faith.⁸ An offer or rebid will be taken to be made in good faith if, at the time of making the offer, the generator has a genuine intention to honour that offer if the material conditions and circumstances upon which the offer is based remain unchanged.⁹ The good faith provisions were proposed by the National Electricity Code Administrator (NECA) and authorised by the Australian Competition and Consumer Commission (ACCC) in 2002.¹⁰ They were designed to address aspects of generators' bidding and rebidding strategies that were of concern to jurisdictional ministers and that were seen as manipulating wholesale price outcomes in the National Electricity Market (NEM).

1.2 Rationale for rule change request

This rule change request was submitted following the Federal Court decision handed down in August 2011 between the Australian Energy Regulator (AER) and Stanwell Corporation (the "Stanwell case"). The South Australian Government is concerned that the Federal Court decision has introduced uncertainty around the operation of the bidding in good faith provisions and highlighted issues in relation to the implementation of the original policy intent.

The South Australian Government considers that the Federal Court's interpretation of the good faith bidding provisions is inconsistent with the original policy intent of the provisions as defined at the time of the ACCC's 2002 determination.

The South Australian Government notes that the ACCC's determination to incorporate the good faith provisions was based on the intention that pre-dispatch forecasts could be relied on by participants with some level of assurance. Initial offers or rebids that are made without an intention for them to be honoured can undermine the reliability of pre-dispatch forecasts, and hinder effective and competitive demand and supply side responses.

⁷ South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013.

⁸ Clause 3.8.22A(a) of the NER.

⁹ Clause 3.8.22A(b) of the NER.

¹⁰ The ACCC was the body responsible for authorising amendments to the National Electricity Code. In 2005, the AEMC was established and assumed responsibility for rule making in the NEM.

1.3 Solution proposed in the rule change request

The South Australian Government considers that the proposed rule would resolve the uncertainty that has been introduced through the inconsistency in the interpretation of the provisions. The rule change request proposes to recast the good faith provisions in the negative such that an inference can more easily be drawn that an earlier offer was not made in good faith if a subsequent rebid is made when there has been no observed change in material conditions or circumstances. If there is a change in material conditions and circumstances then those changes would need to be reflected in rebids as soon as practicable.

The South Australian Government also considers that there should be an objectively observable, significant, and quantifiable reason used as the basis for all rebids. The rule change request proposes to include a separate provision to make clear that if a generator makes a rebid on the basis of certain subjective expectations, and those expectations are not met, then this would not be considered to be a change in material circumstances, and therefore not a permitted reason for making a further rebid for the same trading interval.

In addition, the proposed rule would require generators to provide complete and accurate information to the AER upon request, and would require that a rebid could only be made in response to a significant and quantifiable change in price, demand or some other data published by the Australian Energy Market Operator (AEMO) or other material circumstances.

The South Australian Government considers that these changes to the NER would impose a greater incentive on generators to submit offers promptly that reflect their true intentions at the time of making the offer. This would improve the accuracy and reliability of AEMO forecasts, consistent with the original policy intent of the good faith provisions.

1.4 The Commission's rule making process to date

On 10 April 2014, the Commission published the South Australian Government's rule change request and a paper identifying specific issues and questions for consultation.

Submissions on this first round of consultation closed on 22 May 2014. The Commission received 24 submissions, which are available on the AEMC website.¹¹ A summary of the issues raised in submissions and the Commission's response to each issue is contained in **Appendix F**.

The Commission held a public forum on 5 May 2014 to provide an opportunity for stakeholders to share their views on the issues identified in the rule change request, the impact of the proposed rule, and any alternative solutions that may better address the identified problems. A copy of the presentations given at the public forum can be found on the AEMC website.

On 31 July 2014, the Commission decided to extend the period of time to consider the rule change request under section 107 of the National Electricity Law. The Commission

11 www.aemc.gov.au

considered the extension necessary due to the complexity of issues raised by the rule change request.

On 18 December 2014, the Commission published an options paper to facilitate consultation on the rule change request. The options paper discussed the outcome of analysis undertaken for the Commission and sought stakeholder views on potential options identified to address the rule change request.

Submissions on the options paper closed on 12 February 2015. The Commission received 21 submissions, which are available on the AEMC website. A summary of the issues raised in submissions and the Commission's response to each issue is contained in **Appendix G**.

On 16 April 2015, the AEMC made a draft rule to enhance the arrangements that govern generator bidding behaviour in the wholesale electricity market. On 18 May 2015, a public forum was held in Brisbane to provide an opportunity for interested stakeholders to share their views on the draft rule, followed by an additional round of consultation with submissions closing on 11 June 2015. The Commission received 18 submissions, which are available on the AEMC website. A summary of the issues raised in submissions and the Commission's response to each issue is contained in **Appendix H**.

On 23 July 2015, the Commission decided to further extend the period of time to consider the rule change request under section 107 of the National Electricity Law. The Commission considered the extension necessary due to the complexity of issues raised by the rule change request and by stakeholders in their extensive submissions on the first draft determination and at the public forum. The revised project timeline included publication of a second draft determination by 17 September 2015.

1.5 Status of second draft determination

The second draft determination replaces the first and is a standalone document. Much of the analysis contained in this document has been reproduced from the first draft determination, with some alterations and additional material to reflect the Commission's evolving view on the issues.

1.6 Consultation on the second draft determination

The Commission invites submissions on this second draft determination, including its second draft rule, by 29 October 2015.

Any person or body may request that the Commission hold a hearing in relation to the draft determination. Any request for a hearing must be made in writing and must be received by the Commission no later than **24 September 2015**.¹²

Submissions and requests for a hearing should quote project number "ERC0166" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission

¹² In accordance with section 101(1a) of the NEL. A public hearing is a formal requirement for the Commission to appear before the applicant to enable the applicant to make a presentation to the Commission.

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2 Second draft rule determination

Following its analysis of the rule change request and the issues raised, the Commission has decided to make a more preferable draft rule to require that:

- A participant must not make an offer, bid or rebid that is false, misleading or is likely to mislead. An offer, bid or rebid will be deemed to be false or misleading, if at the time of making it, a participant:
 - does not have a genuine intention to honour; or
 - does not have a reasonable basis to make;
 - the representation that the offer, bid or rebid will not be changed unless the participant becomes aware of a change in the material conditions and circumstances;
- if a participant forms an intention to make a rebid, it must do so as soon as practicable after it becomes aware of the change in material conditions and circumstances;
- if a rebid is made during, or less than 15 minutes before the commencement of the trading interval, the participant must make a contemporaneous record in relation to the rebid, which must include:
 1. the material conditions and circumstances giving rise to the rebid;
 2. reasons for making the rebid;
 3. the time at which the relevant event(s) occurred; and
 4. the time at which the participant became aware of the relevant event(s).

The second draft rule is attached to and published with this second draft determination. Having regard to the issues raised in the rule change request and by stakeholders, the Commission is satisfied that the second draft rule will, or is likely to, better contribute to the achievement of the National Electricity Objective (NEO) than the existing rules or the proposed rule.

This chapter outlines:

- the Commission's rule making test for changes to the NER;
- the Commission's assessment framework for considering the rule change request; and
- a summary of the Commission's draft determination, including the reasoning for its decision.

Appendix A sets out further detail regarding the legal requirements for the making of this draft determination.

2.1 Rule making test

The Commission may only make a change to the NER if it is satisfied that the rule will, or is likely to, contribute to the achievement of the National Electricity Objective (NEO).¹³

The NEO states:¹⁴

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”

The Commission considers that the relevant aspects of the NEO in the context of this rule change request are the efficient investment in and operation of electricity services with respect to the security and reliability of the national electricity system and the price of supply of electricity.

The Commission can make a rule that is different from the proposed rule if it is satisfied that, having regard to the relevant issues in the rule change request, the more preferable rule will or is likely to better contribute to the NEO.¹⁵

2.2 Assessment framework

In the NEM, wholesale prices signal to generators to increase or decrease supply depending on whether this is valued by consumers, promoting efficient market outcomes. However, this rule change request seeks to address concerns that the commercial incentives acting on generators in the NEM may not be aligned with the interests of consumers in all circumstances and can, on occasion, lead to outcomes which are not efficient with regard to the price or the reliability and security of supply of electricity.

The rule change request explores potential inefficiencies in market outcomes created through generator bidding strategies. The request identifies the good faith bidding provisions in the NER as the appropriate means to address these issues, in particular the requirement for generators to offer in accordance with their genuine intentions and to offer on the basis of significant and quantifiable changes in material conditions and circumstances.

As part of the rule change process, the Commission has assessed the merits and practicalities of the proposed rule within the broader context of the role that rebidding plays in the NEM. The Commission has also assessed whether there are any other potential solutions that would result in net benefits to the market and better promote the NEO than the proposed rule.

13 See section 88(1) of the NEL.

14 See section 7 of the NEL.

15 See section 91A of the NEL.

Rebidding can result in changes to price signals for production, consumption and investment. As such, for this rule change request the Commission considers the relevant aspects of the NEO to be the efficient investment in and operation of electricity services, with respect to the security and reliability of the national electricity system and the price of supply of electricity.

A potential trade-off in energy-only electricity markets like the NEM can occur between productive efficiency and dynamic efficiency. Too much weight on productive efficiency in the regulatory framework can weaken incentives to invest. This is because wholesale prices that always reflect a generator's short run costs will not allow long term investment costs to be recovered.

While the Commission would be concerned about any changes to the rules that give too much weight to productive efficiency at the expense of dynamic efficiency, the price setting process should be sufficiently transparent and robust such that market participants have confidence that these signals are generally reflective of underlying supply and demand conditions in the NEM.

The Commission has considered the following matters in assessing whether making a change to the existing arrangements will, or is likely to, promote the NEO:

- the impact on the efficacy of wholesale price signals, such that efficient investment decisions can be made with confidence; and
- the provision of reliable and timely information to market participants, including pre-dispatch forecasts, such that efficient operational responses can be made in the short term which are in line with underlying supply and demand conditions.

2.3 The Commission's second draft rule determination

In the development of its second draft determination, the Commission has assessed the effectiveness of the existing good faith provisions and the proposed rule in addressing the issues raised by the rule change request.

This section provides an overview of the reasons for the more preferable draft rule. Stakeholders' views on the issues raised by the rule change request, and the Commission's response to those views, are provided in Chapter 3. Further information on the Commission's proposed changes to the good faith bidding provisions is set out in Chapter 4. A discussion of the Commission's proposed additional reporting requirements is provided in Chapter 5.

2.3.1 Defining the issues raised in the rule change request

Participation in the NEM requires that generators submit offers to the Australian Energy Market Operator (AEMO) specifying the prices they are willing to receive for given amounts of generation capacity offered. Following the submission of initial offers, generators may submit rebids to shift the capacity they are willing to offer between these different price bands.

The ability to rebid provides generators with necessary flexibility to adjust their position to accommodate changes in market conditions and to respond to the offers of other participants. The resulting dynamic process of participants learning and reacting

to the actions of their competitors is an important part of an efficient functioning market.

However, the rebidding process can also compromise the ability of the market to arrive at an efficient outcome when rebids are made close to the relevant dispatch interval. This is because participants may still have an incentive to respond but do not have sufficient time prior to the relevant dispatch interval occurring.

While there will always be one generator that makes the last rebid for any given dispatch interval, there may be an inefficient outcome if other participants are unable to provide an efficient physical response. A generator may deliberately delay in making a rebid until a point in time very close to dispatch in the knowledge that certain other generators and demand-side participants may be prevented from enacting a production response with limited time available.

2.3.2 The effectiveness of the existing good faith provisions

The Commission has concerns with the effectiveness of the existing good faith provisions in addressing this issue. The assessment of whether an offer or rebid is made in good faith is only based on the generator's intentions at the time the offer or rebid is submitted. A generator may have a genuine intention to honour its initial offer and equally may have a genuine intention to honour its subsequent late rebid. As long as there is a genuine intention to honour the offer or rebid at the time it is made, the obligations of the good faith provisions are satisfied.

The good faith provisions prohibit generators submitting offers which they do not intend to honour under any circumstances or are incapable of complying with if dispatched. However, they do not prohibit generators submitting an offer, in the knowledge that it may be honoured, but then subsequently changing its intentions for dispatch without reflecting those intentions in a rebid as soon as practicable. The Commission considers that it is the potential inability of the existing good faith provisions to address this latter behaviour that provides the case for making a change to the NER.

2.3.3 The Commission's second draft rule

Having regard to the issues raised by the rule change request, the proposed rule and stakeholder views on the first draft rule as expressed through submissions and the stakeholder forum, the Commission has decided to make a second draft rule that is a more preferable draft rule.

The second draft rule requires that participants must not make offers or rebids that are false or misleading. An offer or rebid would be deemed to be misleading if, at the time of making the offer or rebid, the participant does not have a genuine intention, or does not have a reasonable basis to make the representations which it is deemed to have made to other market participants through the pre-dispatch schedules published by AEMO (i.e. that the offer will not be changed unless the generator becomes aware of a change in material conditions and circumstances upon which the offer was based).

The Commission considers that by recasting clause 3.8.22A from an "in good faith" obligation to an obligation that offers, bids and rebids not be false, misleading or likely

to mislead, the provisions would treat all bids and rebids as a representation of a generator's intentions to supply electricity at particular prices. If a generator were to change its intentions for dispatch, then its existing offer would be misleading for so long as it failed to make a rebid to reflect its true intentions. The second draft rule also provides that an offer, bid or rebid could be found to be false, misleading or likely to mislead by inference from behaviour, including patterns of conduct.

An offer or rebid will be deemed to be misleading if the generator does not have a reasonable basis to make the representations which it is deemed to have made to other market participants through the pre-dispatch schedules published by AEMO at the time of making its offer (i.e. that the offer will not be changed unless the generator becomes aware of a change in material conditions and circumstances upon which the offer was based).

In determining whether a generator has a reasonable basis to represent that it will honour its offer or rebid, the draft rule includes provisions that would allow a court to give consideration to patterns of conduct. This would allow a court to take into account prior patterns of behaviour where the generator has repeatedly failed to honour its offers absent a change in material conditions and circumstances.

The Commission considers that this change to the good faith provisions will, or is likely to, better contribute to the achievement of the NEO than the proposed rule by providing greater certainty to market participants in relation to appropriate market conduct and bidding behaviour, thereby increasing transparency and providing greater operational and investment certainty to market participants. This should promote more efficient price signals for investment and enhance the security and reliability of the electricity system in the long term interests of consumers of electricity.

If a generator changes its intentions for dispatch, and wishes to make a rebid to reflect those changed intentions, the second draft rule requires that the generator must make the rebid as soon as practicable after it becomes aware of the change in the material conditions and circumstances on the basis of which it decides to vary its offer or bid.

A requirement to rebid as soon as practicable upon becoming aware of change in the material conditions and circumstances upon which the rebid is based should provide for the provision of more accurate, reliable and timely information to other participants, thereby allowing for responses which are in line with the underlying conditions of supply and demand.

The Commission has also determined that, in each case that a rebid is made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies, the rebidding generator must make and keep a contemporaneous record in relation to the rebid, which must include a record of the material conditions and circumstances giving rise to the rebid, the generator's reasons for making the rebid, the time at which the relevant event(s) or other occurrence(s) occurred, and the time at which the generator first became aware of the relevant event(s) or other occurrence(s). Offers apply to 30-minute trading intervals rather than individual 5-minute dispatch intervals. Therefore, this would result in a period during which this new obligation applies that varies between 15 minutes and 40 minutes, depending on the point in time prior to or during a trading interval that the rebid is submitted. Further detail on the practical application of the reporting period is set out in figure 5.1 in section 5.5.

In the event that non-compliance is alleged, this record should provide the AER with additional information to assist in its consideration of whether a possible breach of clause 3.8.22A of the NER may have occurred. The additional recording requirement should also reduce the incentives on generators to make deliberate late rebids.

These additional requirements on market participants in relation to the timing and recording of information pertaining to rebids should lead to more efficient wholesale price outcomes in the short term and create efficient signals for investment in supply and demand-side over the longer term, thereby lowering the price of electricity to consumers.

2.3.4 The South Australian Government's proposed rule

The Commission's second draft rule to require that rebids are submitted as soon as practicable is consistent with one of the South Australian Government's proposed changes to the rules. However, the Commission has determined not to adopt the remaining principal elements of the proposed rule.

The Commission considers that the South Australian Government's proposal to recast the good faith provisions in the negative would mean that an offer, bid or rebid would be taken to not be made in good faith unless the participant could demonstrate that they had a genuine intention to honour their offer, bid or rebid if the material conditions and circumstances upon which the offer, bid or rebid was based remain unchanged. Such a proposal would be likely to significantly increase regulatory uncertainty and compliance costs for participants.

Further, the Commission considers that only permitting rebids on the basis of objective and quantifiable changes in market circumstances, as proposed by the South Australian Government, would limit the price discovery process and the achievement of efficient market outcomes. A rebid based on an expectation that does not eventuate could be equally as valid in arriving at an efficient outcome as a rebid based on an objectively observable change in market conditions. In addition, the Commission considers that a rule prohibiting rebids based on subjective expectations would be difficult to apply in practice and would be likely to increase levels of uncertainty in compliance with the rules.

The Commission also has concerns in relation to the South Australian Government's proposal for the reporting of information to the AER on the reasons for offers, bids and rebids. This requirement is likely to impose a significant burden on market participants, which may lead to more conservative bidding and inhibit the discovery of efficient price outcomes.

Further, this additional information requirement could be breached if a participant failed to provide either accurate data or complete data to the AER upon request. A breach of this rule is proposed to be a rebidding civil penalty. The Commission considers that this could impose a significant regulatory burden on participants, particularly given the level of potential penalty involved.

2.4 Strategic priority

Costs for consumers are likely to be minimised where market arrangements encourage efficient operation and investment. This is the basis for the AEMC's third strategic priority for energy market development (the Market Priority). The strategic priorities underpin the Commission's work, helping to guide its advice to governments and its approach to rule making.

The Commission's second draft rule contributes to the Market Priority by facilitating investment decisions that are made in accordance with price signals reflecting the underlying market conditions of supply and demand, and not influenced by generator bidding strategies that are aimed at limiting the opportunity for competitive market responses. This would assist parties in making decisions based on commercial factors, which would promote the efficient operation of the market and contribute to efficient outcomes that minimise costs for consumers.

The second draft rule will also give effect to the market design principle of achieving the maximum level of market transparency in the interests of achieving a very high level of market efficiency. The second draft rule enhances this principle to expressly include reference to providing accurate, reliable and timely forecast information to market participants to allow for responses that reflect underlying conditions of supply and demand. The importance of providing accurate pre-dispatch information is an integral part of the NEM and is not otherwise expressly stated in the rules.¹⁶

¹⁶ Clause 3.1.4(a)(2)

3 Efficient price discovery and late rebidding

In defining the issues raised by the rule change request, the Commission has considered the role that rebidding plays in the promotion of efficient outcomes in the NEM. This Chapter sets out stakeholders' views on the nature and materiality of those issues and provides the Commission's response to those views.

3.1 The role of rebidding in the NEM

This section sets out the Commission's views on the issues raised by the rule change request, including the role that rebidding plays in the process of efficient price discovery and the impacts of late rebidding. This discussion provides context for subsequent sections of this chapter where stakeholders' views on the nature and materiality of the issues are considered.

3.1.1 The efficient price discovery process

In the NEM, the settlement price is based on the time-weighted average of the six five-minute dispatch interval prices over the 30-minute trading interval. Generators are required to submit initial price/quantity offers for each 30-minute trading interval in up to ten price bands to AEMO by 12:30pm the day before trading day.¹⁷ Rebids may be submitted up until the start of processing for the relevant five-minute dispatch interval by moving capacity between the nominated price bands, in response to changing market conditions.

Each generator's initial offers submitted to AEMO are combined into a merit order and used to forecast the dispatch outcomes for the following day's trade. Initial offers that are based on a generator's genuine expectations of market conditions provide the best estimate that other participants can rely on to make their own commercial and availability decisions. As such, initial offers that are meaningful and broadly reflect the generator's market intentions can increase the predictability and efficiency of market outcomes.

As time progresses from the initial offers, rebidding provides the necessary flexibility to achieve an economically efficient dispatch arrangement of generation in the short-term. Rebidding facilitates an iterative process of price discovery as generators are provided with the necessary flexibility to adjust their position to accommodate changes in the market, including the actions of other generators.

Importantly, it is not the change in the market itself that triggers generators to adjust their position but rather the change in their expectations. The occurrence of a market event could be characterised as a change in market information that will impact on generators' expectations as well as their expectations of other generators' expectations.

While a change in the environment that is readily observable and objective may trigger a change in expectations, it could also occur in the absence of such a change. In practice,

¹⁷ See clause 3.8.6 of the NER. Scheduled loads can also submit bids to AEMO and can make rebids. However, this paper focuses on issues raised in the rule change request, which relate to the behaviour of generators engaging in rebidding.

a generator's offers will reflect its subjective expectations of any number of events occurring or not occurring.

While participants will generally have a good idea about the implications of the occurrence or non-occurrence of a given event on their relative position and costs, they are less likely to know the implications for other market participants and how they will react. As such, there is a process of learning that is typically undertaken following the occurrence or non-occurrence of a market event. The process may be quite short if participants are responding to a familiar event but could be substantially more protracted if the implications of the event are more complex.

3.1.2 Late rebidding

Markets for electricity can be distinguished from other commodity markets by the requirement that supply and demand must be matched continuously. The instantaneous delivery of electricity creates a deadline by which a price for both production and consumption must be determined.

As discussed, a generator's market offers for any given 5-minute period do not reflect an expectation of one particular path or series of events. The price and quantity combinations that generators offer to the market are based on a subjective expectation of the probability of any number of events occurring or not occurring. Each one of these events may have specific implications for the generator's expectations of its market position relative to its competitors.

Generally, as time moves towards the point of dispatch, the amount and accuracy of information upon which the generator can assess the probability of any particular event increases. Information available to the generator increases over time and becomes a maximum at the point of dispatch, where by definition, the occurrence or non-occurrence of any given event becomes a certainty. As a consequence, a generator has an incentive to wait until the last possible moment to make a rebid because that is when the greatest amount of information is likely to be available upon which it can make a decision on its final market position.

However, the ability of the market to arrive at an efficient outcome may be compromised by rebids that are made very close to the relevant dispatch interval. Late rebidding may prevent an efficient outcome as other 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.

Responding to a late rebid

Not all participant responses that are prevented by late rebids are the same. Professor Yarrow's advice to the Commission notes that rebids can trigger responses by other participants which can be classified as one of two forms.¹⁸

- Price response - A generator may respond to a competitor's rebid by re-offering its current generation output at a different price through its own rebid. This form of

¹⁸ Professor George Yarrow and Dr Chris Decker (Regulatory Policy Institute), *Bidding in energy-only wholesale electricity markets*, December 2014, pp. 18-19.

response shifts output that is already being generated into a different price band. A price response does not involve any adjustment in production, and as such, would generally only be prevented if a late rebid was made within a few minutes of the relevant dispatch interval.

- Physical response - A generator may respond to a competitor's rebid by changing production to meet its existing offers. Adjustments in production involve time lags and a generator's ability to meet its market offers may be inhibited if a late rebid by a competitor occurs within the time period in which start-up or ramp rates impose constraints on changes in generation output. This form of response is not isolated to generators and can equally affect participants on the demand-side that wish to adjust their electricity consumption to manage purchasing costs.

Price reactions by competitors can be very quick, down to a period of a few minutes, while physical or production responses may take longer, particularly if it involves calling on plant with slower response times. The inefficiencies created by late rebidding can therefore be expected to be higher in the latter circumstance. Production adjustments may involve time lags and costs, and costs tend to be higher the shorter the time period over which adjustments have to be made.

In a hypothetical market environment where generators could seamlessly and instantaneously meet their production targets, the impacts of late rebidding would be significantly reduced. There would be little distinct advantage to any particular generator from engaging in a late rebid. A late rebid made by a generator that shifted capacity from a low price band to a high price band close to dispatch would most likely see another generator instantaneously increase output to meet their offers in the bid stack, thereby undercutting the offers of the late rebidding generator. It is the inability of certain participants to physically respond in time that drives most of the impacts of late rebidding.

The design of the NEM trading arrangements

The incentives to engage in late rebidding are further exacerbated by the design of the NEM bidding process and trading arrangements. There is a mismatch between dispatch and settlement such that dispatch prices are calculated every five minutes, while the market is settled on the basis of the time-weighted average of the six five-minute dispatch prices over the 30-minute trading interval.

This mismatch in the pricing of dispatch and settlement can influence the bidding behaviour of generators. For instance, a generator may attempt to spike the price of the last dispatch interval of a trading interval in order to increase the 30-minute average settlement price. Generators will generally achieve this by rebidding generation capacity into higher price bands close to the relevant dispatch interval. While the attempt to increase the dispatch price towards the end of the trading interval may see the generator's output reduced in this dispatch interval, it may benefit overall from having its higher dispatch output over the previous 25 minutes settled at the higher 30-minute average price.

Conversely, other market participants may not only have insufficient time to initiate a supply or demand-side response in the limited time available, but would also be

exposed to the higher average settlement price for the amount of energy they consumed over the previous 25 minutes of the trading interval.

3.1.3 Generator intentions

The fact that market participants are allowed to make subsequent changes to their offers prior to dispatch can have a limiting effect on the incentive to submit meaningful initial offers. The incentives that unrestricted rebidding can have on the provision of less meaningful initial offers can also provide opportunities for generators to mislead other participants. This could arise from actions that, through the initial offer, influence the expectations of other participants. An initial offer could provide market participants with a false expectation of the generator's intentions, which could then subsequently be exploited through a late rebid that relies on the limited opportunity for competitors to respond.

Bidding behaviour which misleads other participants need not only arise through a generator's initial offers but could be applied to any circumstance where a generator's existing offers to the market do not reflect their intentions for dispatch. The potential for financial gain to the generator may have been reduced had it signalled its intentions much earlier through a rebid.

Inefficiencies related to the intentions of the late rebidding generator

Inefficiencies can arise from a degradation in the reliability of information that is made available to market participants. This form of generator behaviour has the potential to impair the efficacy of the price discovery process by casting doubt on the reliability of information. The consequences of this can be more significant over time than the immediate effects of the harm caused by the sudden increase in price.

Therefore, while late rebids may have the same price impacts irrespective of the generator's intentions, the costs to the market might be very different. These additional costs relate specifically to the intentions of the rebidding generator and whether the late rebid is a part of a strategy of behaviour that is aimed at misleading competitors and promoting false expectations.

As such, the costs arising from misleading conduct are not readily susceptible to economic evaluations such as those used to assess evidence of market power. Policy that focuses on misleading behaviour must instead focus on the conduct itself and the motivations and intentions that lie behind it. Typically, such policy consists of statements of appropriate market conduct in rules and regulations. In the NEM, this role has traditionally been served through the good faith bidding provisions.

3.2 Market inefficiencies caused by late rebidding

This section sets out the South Australian Government's views and stakeholders' views on inefficiencies that can be created through late rebidding and provides the Commission's response to those views.

3.2.1 The South Australian Government's view

The South Australian Government considers that it is in the long-term interests of consumers that generators be permitted to rebid to reflect changing market conditions. Generators require the flexibility to adjust their positions to accommodate unexpected changes in demand patterns and plant availability.¹⁹

However, the South Australian Government considers that the flexibility to rebid must be managed against the need for pre-dispatch forecasts which can be relied upon by market participants. As generators are required to self-commit, pre-dispatch forecasts are essential for generators to determine whether to be online. NEM customers also rely on pre-dispatch forecasts to manage their pricing risk. Pre-dispatch forecasts assist customers to determine whether they need to consider forward contracting or to prepare for demand-side response. Therefore, reliable and accurate information is key to determining meaningful pre-dispatch forecasts and allowing competitive demand and supply side responses.²⁰

The South Australian Government considers that the ability of generators to engage in strategic withdrawals of generation capacity, when other participants are unable to respond, reduces the efficiency of market outcomes.²¹ The South Australian Government considers that this diminishes price transparency and leads to uncertainty for market participants, thereby impacting liquidity in the forward contract market and leading to less efficient signals for investment in electricity generation.

3.2.2 Stakeholder submissions

Rebidding and efficient price discovery

A number of participants noted the benefits that the ability to rebid provides, including the ability to reflect a change in conditions close to the time of dispatch.²² RWE Supply and Trading (RWEST) suggested that rebidding plays a fundamental role in the price discovery process and rebidding relatively close to delivery is important to ensure that prices can better reflect the underlying fundamentals of supply and demand, to underwrite efficient dispatch, and to ensure security of supply.²³ This view was supported by a number of stakeholders who emphasised the important role that late rebids can play in responding to price spikes in pre-dispatch forecasts and reducing market volatility.²⁴

Further, there is a high level of consensus amongst stakeholders that participants should be free to adopt bidding strategies that maximise profits and that a properly

19 South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013, p. 1.

20 Ibid, p. 6.

21 Ibid, p. 16.

22 See submissions on the options paper from: RWEST, p. 2; ERM Power, p. 5; AEMO, pp. 2-3; ESAA, p. 4; Origin Energy, p. 2; EnerNOC, p. 1; Arrium, p. 2; QGC, p. 1; GDF Suez, p. 2; AGL, p. 1; Alinta Energy, p. 3; MEU, p. 2; EnergyAustralia, p. 1; AER, p. 1.

23 RWEST, submission on the options paper, p. 2.

24 See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 4; GDF Suez, p. 3.

functioning market need not deliver efficient outcomes in every single dispatch interval.²⁵

Late rebidding

While noting the benefits of rebidding, there were a significant number of stakeholders that raised concerns in relation to rebids that occur very close to the point of dispatch.²⁶ Visy suggested that the effect of these late rebids can be to prevent a potentially large number of otherwise viable responses from other generators, retailers and consumers which could have resulted in more efficient dispatch outcomes. EnerNOC considered that the ability to rebid late skews the market towards outcomes that are more favourable for those generators that are regularly dispatched, and against peaking resources and responsive customers.²⁷

However, GDF Suez contended that consideration should not focus on the ability of certain technologies to respond and that the efficiency of price discovery should also take into account the slower response times of coal-fired plant, which can face start-up times of three days or more.²⁸ The Energy Supply Association of Australia (ESAA) considered that the slow responsiveness of baseload plant means that they are unable to avoid negative market price outcomes when they occur.²⁹

Responding to a late rebid

Origin Energy and EnergyAustralia noted that there will always be one generator that makes the last rebid for any given dispatch interval.³⁰ The need to continuously match demand and supply means that not all market participants will be able to respond to every rebid. They suggested that the response of demand and supply to market signals will always have some physical or economic inflexibility, and that rules that restrict the ability to rebid close to dispatch would only shift value from flexible to inflexible generators and demand response providers. Although, this view was contended by EnerNOC who suggested that, given consumers cannot practice economic withholding, there is no harm in them having the final say.³¹

The ESAA, Origin Energy, and EnergyAustralia suggested that responses over the longer term are also important. Trading periods do not happen in isolation and the repetitive cycle of bidding provides opportunities for learning, prediction and adjustment.³² EnergyAustralia suggested that generation can synchronise, or stay

25 See submissions on the options paper from: Visy, p. 1; Q Energy, pp. 5-6; GDF Suez, p. 3; Snowy Hydro, p. 3; EnergyAustralia, pp. 2-3; Origin Energy, p. 2; ESAA, p. 1.

26 See submissions on the options paper from: Visy, p. 5; Arrium, p. 2; QGC, p. 1; MEU, p. 2; EnerNOC, p. 2; ERM Power, p. 4; RWEST, p. 2; Q Energy, pp. 1-2; SACOSS, p. 1; AER, p. 2; AEMO, p. 2.

27 EnerNOC, submission on the options paper, p. 2.

28 GDF Suez, submission on the options paper, p. 4.

29 ESAA, submission on the options paper, p. 3.

30 See submissions on the options paper from: Origin Energy, p. 3; EnergyAustralia, p. 3.

31 EnerNOC, submission on the options paper, p. 7.

32 See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 4; EnergyAustralia, p. 3.

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.³³

This view was supported by AGL who considered that all generators must constantly weigh up the opportunities and risks associated with different strategies, and that all commercial operational decisions involve judgement calls about fuel availability and costs versus prices that are expected to be seen in the market.³⁴ AGL suggested that coal-fired generators, with very long start-up and shut-down times, manage the risk that they will be online and facing low or negative market prices for a number of trading intervals as much as fast-start generators manage the risk that they will be offline during a short but high priced interval.

Predictability of price outcomes and drivers of efficient investment

InterGen raised, as a point of focus, the level of uncertainty that faces all participants in the NEM and that customers with the ability to shed load can do so at any time, taking into account the abundance of NEM information.³⁵ InterGen suggested it is unreasonable for a customer to be willing only to shed load if they have certainty that it will alleviate what would otherwise be a high price.

Stanwell shared this view and noted that generators do not have this same level of certainty in spot market outcomes. There are significant distortions relating to non-scheduled generation and load, as well as natural variation in demand forecasts. Stanwell considered that each of these sources of non-transparent variation become aggregated into the single "demand" value which is presented to scheduled generators and market analysts making it difficult to evaluate the relative impact.³⁶

EnergyAustralia and GDF Suez suggested that the impact of inaccuracies in demand and network constraint formulations on pre-dispatch is materially greater than rebidding, so restricting rebidding would not significantly improve pre-dispatch accuracy.³⁷

Contract market impacts

Different participants reached a range of conclusions as to the existence and the materiality of contract market impacts caused by deliberate late rebidding. This is unsurprising, given that the experience of late rebidding varies between regions of the NEM. The Ernst & Young report on contract market outcomes provides statistical evidence for a quantitative difference in late rebidding impacts between jurisdictions.³⁸

A number of participants considered that, regardless of the accuracy of pre-dispatch forecasts, there are efficient commercial strategies available to market participants to

³³ EnergyAustralia, submission on the options paper, p. 3.

³⁴ AGL, submission on the options paper, p. 5.

³⁵ InterGen, submission on the options paper, pp. 2-3.

³⁶ Stanwell, submission on the options paper, pp. 7, 18.

³⁷ See submissions on the options paper from: EnergyAustralia, p. 3; GDF Suez, p. 5.

³⁸ See Appendix B.

manage these market risks.³⁹ EnergyAustralia suggested that the most important tool for retailers, generators and other market customers to manage the risk of market volatility is forward contracting.⁴⁰ Customers with demand response capability can choose to use contracts, either directly or through retailers, to manage the risk of high pool prices while still being able to benefit from opportunistic demand response.

GDF Suez suggested that a participant's decision not to enter into contract arrangements and be exposed to the market is made explicitly in the face of all available information, and it is therefore appropriate for uncontracted generators to seek to maximise profits based on market conditions.⁴¹ Both the contracted and uncontracted participants are well aware that price spikes that deviate from pre-dispatch are possible as conditions in the market evolve. InterGen also suggested that buying electricity under a fixed price contract will not only provide price certainty for the retailer or end user, it will also incentivise the contracting generator to generate a higher portion of its output at a lower price.⁴²

However, RWEST suggested that it is the very fact that retailers and end users need to enter into contract arrangements with the generators that exacerbates the problem.⁴³ RWEST considered it is not just the reality of market manipulation but also the prospect of market manipulation that can be corrosive to market liquidity.

RWEST suggested that the overarching requirement in providing risk capital to the Australian and other wholesale electricity markets is that the market prices reflect the underlying supply and demand fundamentals. The prospect of market manipulation means that intermediaries must trade with counterparties, not just with the power to move contract settlement prices, but with asymmetric information on when and how prices might move. RWEST considered that the potential result could be declining liquidity and increasing costs to consumers.

Snowy Hydro and GDF Suez contended that late rebidding by generators does not have a material effect on hedge contract prices.⁴⁴ They suggested that the estimation of contract prices are based on payouts under various scenarios which are unlikely to move on the basis of late rebids.

This is in contrast to the view taken by ERM Power that recent rebidding activity in Queensland has been material, with unprecedented spot price spikes and significant price increases in the forward contracts market.⁴⁵ ERM Power provided figure 3.1 in its submission, which shows the half-hourly spot price in Queensland from early November 2014 to end January 2015 and the price of forward contracts in Queensland over this period.

³⁹ See submissions on the options paper from: EnergyAustralia, p. 3; InterGen, pp. 2-3; Alinta Energy, pp. 4-5; GDF Suez, p. 3.

⁴⁰ EnergyAustralia, submission on the options paper, p. 3.

⁴¹ GDF Suez, submission on the options paper, p. 3.

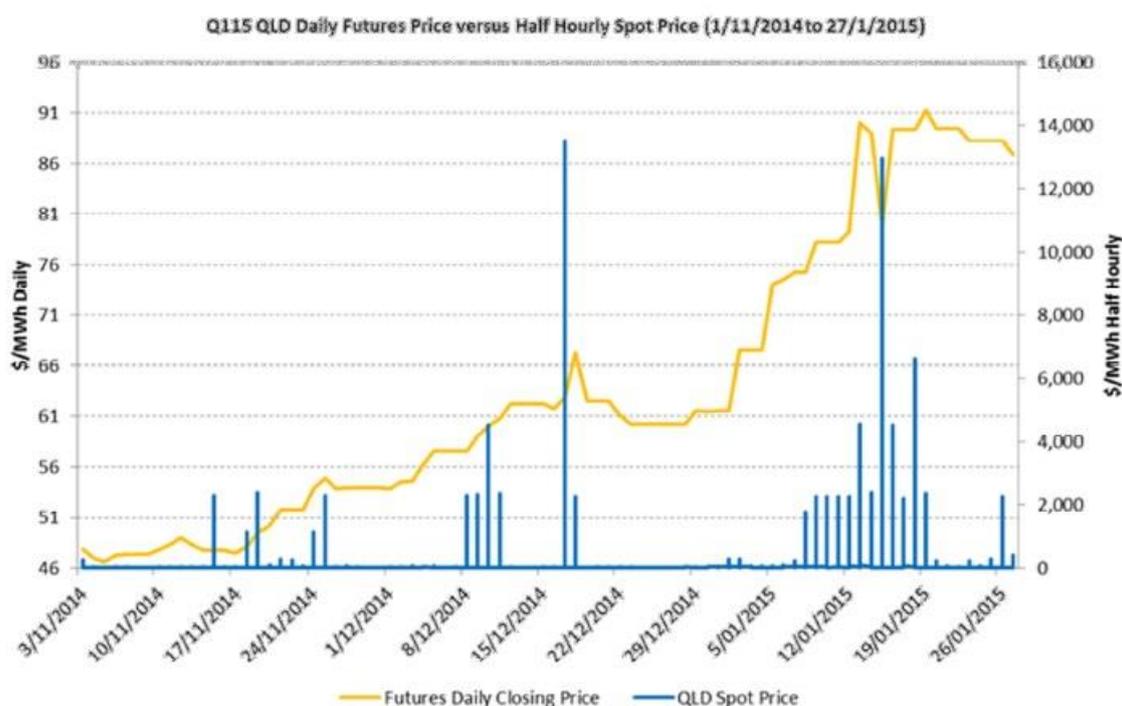
⁴² InterGen, submission on the options paper, pp. 2-3.

⁴³ RWEST, submission on the options paper, p. 5.

⁴⁴ See submissions on the options paper from: Snowy Hydro, pp. 5-6; GDF Suez, p. 5.

⁴⁵ ERM Power, submission on the options paper, p. 2.

Figure 3.1 Queensland spot and daily futures prices Nov 14 – Jan 15



Efficient signals for investment

Snowy Hydro suggested that if late rebids do in fact have a significant impact on the price of hedge contracts then the market will ensure increased supply of additional fast start hydro or diesel generators.⁴⁶ In support, Stanwell noted the recent decisions by some participants to invest in shorter response times for generating plant.⁴⁷

However, a number of participants considered that the price impacts of late rebidding do not amount to efficient price signals for investment.⁴⁸ ERM Power considered that there would be no benefit to building a new peaking power station in response to the price signal because the lateness of the rebidding means that the new plant could not react to the higher prices.⁴⁹ EnerNOC suggested that any investment in more rapid responses to price spikes by fast response generators and customers may not represent an efficient outcome because the price outcomes themselves are inefficient.⁵⁰

3.2.3 The Commission's response

This section sets out the Commission's views on the market inefficiencies caused by deliberate late rebidding.

⁴⁶ Snowy Hydro, submission on the options paper, p. 3.

⁴⁷ Stanwell, submission on the options paper, p. 7.

⁴⁸ See submissions on the options paper from: ERM Power, p. 4; EnerNOC, pp. 10-11; Visy, p. 7; Arrium, p. 3; RWEST, pp. 2-3.

⁴⁹ ERM Power, submission on the options paper, p. 4.

⁵⁰ EnerNOC, submission on the options paper, p. 2.

Imperfect competition between generators

The Commission acknowledges the assertion by a number of participants that the need to continuously match demand and supply means that not all market participants will be able to respond to a rebid, and that rules that restrict the ability to rebid close to dispatch would only shift value from flexible to inflexible generators and demand response providers.

However, the Commission considers that some instances of late rebidding by generators can prevent other market participants from acting on their learnings and skew the market towards outcomes that are more favourable for those generators that are online and regularly being dispatched. The technology and operational cost characteristics of different generators mean that certain generators are more often online than others. As such, bidding behaviour by these generators can entrench market outcomes that are more in line with their commercial interests.

The Commission acknowledges the view expressed by some stakeholders that fast-start generators are free to stay online through low price periods in anticipation of sensitive volatile periods to capture value. The Commission notes that some participants have actively engaged in this strategy, and that this approach can be adopted as a useful risk management strategy under genuinely tight supply and demand conditions. However, this is not likely to represent an efficient outcome if these generators are operating at prices below cost in order to mitigate against the possibility of a high price that only arises through a strategy of late rebidding.

Inefficient price signals for consumption and production

The deliberate withholding of information from the market can lead to uneconomic startup, with higher cost generators dispatched ahead of lower cost generators which are unable to respond in time. The effect is to artificially raise wholesale prices relative to a competitive market where deliberate late rebidding does not occur. This results in inefficient price signals, and lost production across the economy as energy users curtail their consumption in response to increased costs.

Late rebids that occur towards the end of trading intervals may mean that retailers and end users end up paying a high 30-minute settlement price without an opportunity to dispatch their own generation or initiate demand response to decrease their exposure. For fast-response generators, this may limit their ability to offer price-reflective hedge products to the market. Under this scenario, market efficiency is likely to be reduced, increasing the costs of hedging to market participants, which may again result in higher pass-through costs to customers.

Inefficient price signals for investment

Economic harm also becomes apparent when considering longer-term responses through investments in additional flexibility. Fast-response generators may seek to adjust operating regimes or invest in improvements to plant flexibility in order to more promptly respond to price spikes caused by late rebids. However, the fact that late rebids may result in inefficient market price outcomes suggests that any such additional expenditure may not represent an efficient outcome in itself.

Over the long-term, the purpose of the market as a mechanism to encourage efficient investment may be undermined. Dynamic efficiency may be compromised if distorted price signals encourage new entrant generation of a type that is not optimal. Over the long-term, less fast-response capacity may become available to the system, which would in turn tend to increase the payoffs from very late rebidding and to increase the frequency with which it occurred.

Contract market distortions

An alternative option suggested by some stakeholders is for customers to use forward contracts to manage the risk of high pool prices. While the Commission considers that there is certainly merit in participants entering into hedge contract arrangements to provide price certainty, this increases costs to consumers as the price of hedge contracts is influenced by inefficient pool price outcomes caused by late rebidding. In particular, price volatility caused by deliberate late rebidding is associated with a premium on the price of cap contracts and base futures, which represents a significant additional cost to energy users.

Late rebidding creates time constraints that limit the ability of market participants to respond. Absent the ability to rely on a competitive supply or demand-side response, the estimation of forward contract prices becomes an exercise in predicting generator behaviour. Forecasting the intent and effectiveness to which generators will engage in late rebidding in the future becomes the driver of contract value, rather than the fundamental underlying market conditions.

Generators, retailers and large electricity users, in order to manage risk, need to be able trade-off how much contract cover they enter into and how much they expose themselves to the spot market. Spot price volatility is a factor in this trade-off. The quality of the trade-off is distorted if some generators are able to manipulate spot price volatility through deliberate late rebidding.

Moreover, if the generator that is engaging in deliberate late rebidding is able to vary its production such that it can back its own contracts, it can effectively compel retailers and large electricity users to buy a contract from the generator (at a higher than normal price due to the increased spot market volatility) or be exposed to the spot prices that the generator is manipulating to be higher than normal.

Increased uncertainty

Price spikes caused by deliberate late rebidding are often unable to be predicted in AEMO's pre-dispatch forecasts, due to participants failing to signal their true intentions until it is too late to incorporate this information. This increases the level of uncertainty on the market.

A lack of transparency in the drivers of spot prices may particularly impact on demand-side response if participants are unable to make an economic decision that is based on the potential value of providing a demand response, and are therefore less motivated to actively engage in the market. Businesses and other investors may avoid investing in regions where frequent price volatility driven by deliberate late rebidding is known to occur, as this will increase their risk exposure and hedging costs. Energy users exposed to spot prices may reduce consumption in expectation of such price

volatility, leading to an inefficient loss of consumption whether or not the anticipated volatility actually occurs.

More generally, a reduction of confidence in the validity of the pre-dispatch forecasts may inhibit the ability of participants to make decisions regarding consumption, production and investment.

3.3 The materiality of late rebidding in the NEM

This section sets out the Commission's considerations on the materiality of late rebidding in the NEM. A discussion of the Commission's analysis is provided along with stakeholders' views and the Commission's response.

3.3.1 The Commission's analysis

Economic harms

In order to assess the materiality of the issues raised, the Commission engaged ROAM Consulting to undertake a quantitative statistical analysis of the nature of rebidding activity in the NEM, including quantity, timing, direction and seasonality of rebids for each NEM region. Drawing on this work, Ernst & Young was engaged to undertake a quantitative analysis of the impact of price spikes and late rebidding on contract market prices and traded volumes. The Commission also engaged Oakley Greenwood to conduct an assessment of the extent to which generator bidding behaviour impacts on the ability of large users in the NEM to engage in demand-side participation.

Based on the outcomes of the analysis, the Commission considers that a number of conclusions can be drawn regarding the impacts and materiality of late rebidding by generators in the NEM.

While the NEM has maintained the same broad market design since commencement, the work undertaken by ROAM and Oakley Greenwood suggests that the more widespread occurrence of late rebidding, and rebidding towards the end of trading intervals, has been a recent phenomenon, occurring within the last two years and predominantly in Queensland and to some extent in South Australia. A detailed discussion of the materiality of the issues, as set out in the ROAM and Oakley Greenwood analysis, is provided in **Appendix B.1**. The ROAM analysis has been updated to cover the period to the end of 2014.

Although late rebidding quite often has a role to play in responding to price outcomes in pre-dispatch forecasts and reducing anticipated market volatility, the recent late rebidding behaviour in Queensland and South Australia has resulted in price spikes, specifically towards the end of 30-minute trading intervals.

The work undertaken by Ernst & Young suggests that late rebidding, as well as price volatility in general, can be associated with higher contract market prices. There is some evidence for a relationship between the incidence of price volatility and traded contract volumes. In conjunction with previous analysis by ROAM associating late rebidding with price spikes in Queensland, this supports the hypothesis that late rebidding imposes additional contract market costs on other participants.

As an order of magnitude assessment, deliberate late rebidding is estimated to have added a premium of eight dollars to the price of caps Queensland in the final quarter of 2014, and seven dollars in the first quarter of 2015. Overall, the additional expenditure on ASX traded caps and base futures caused by deliberate late rebidding over this time period has been estimated at \$103.8 million. This does not include impacts on other hedge products, such as options, or bilateral transactions on the OTC market. Therefore, the total magnitude of impact may be substantially higher than this value. Ernst & Young has suggested an assumption of 60 percent of Queensland contracts traded through ASX energy, meaning that once OTC trades are taken into account, the total magnitude of the impact would increase to approximately \$173 million.⁵¹

The current over-supply of generation capacity has reduced price volatility and created market conditions that are not particularly conducive to the take-up of demand response activities by end-use customers. However, the recent prevalence of late rebidding may have contributed to a further reduction in the amount of demand response that is available. This reduction may have occurred because late rebidding can make it difficult to predict or foresee with an acceptable level of accuracy when a period of sufficiently high price to warrant a demand response is likely to occur.

Compliance costs

The AEMC engaged Oakley Greenwood to undertake an assessment of compliance costs for generators under alternative formulations of the draft rule.⁵² The objective of the analysis was to obtain a quantitative estimate of the magnitude of these costs. The assessment included consultations with a range of generators.

Oakley Greenwood assessed three options relating to three possible changes to the regulation of late rebids.⁵³

Option 1 - Reporting

For each late rebid, the generator or market participant must provide to the AER a report as proposed in the first draft rule.

Option 2 - Recording

For each late rebid, the generator or market participant must keep a contemporaneous record as proposed in the second draft rule.

Option 3 - Behavioural standard alone

Under this option there would be no change from current arrangements to the nature of the information to be kept in relation to late rebids or the AER's powers to request additional information. However, the new behavioural standard proposed in the second draft rule would apply, which may lead generators to alter the information they record in order to demonstrate compliance.

51 See Appendix B.2.

52 Oakley Greenwood, *Generator cost assessment*, September 2015.

53 Rebids made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies.

The results of Oakley Greenwood’s assessment are summarised in Tables 3.1 and 3.2. For a more detailed summary of Oakley Greenwood’s findings, methodology and assumptions, see Appendix C.

Table 3.1 Summary of generator costs

	Option 1: reporting	Option 2: recording	Option 3: behavioural standard
IT establishment			
High volume (re)bidding	\$100,000 – \$200,000	\$50,000 - \$100,000	\$0 – \$25,000
Medium volume (re)bidding	\$50,000	\$50,000	Nil
Rarely (re)bids	Nil	Nil	Nil
Trader staffing	20 per cent establishment cost per annum	20 per cent establishment cost per annum	20 per cent establishment cost per annum
IT ongoing	Business dependent	Business dependent	
High volume (re)bidding	\$450,000	\$300,000	Nil
Medium volume (re)bidding	Nil	Nil	Nil
Rarely (re)bids	Nil	Nil	Nil
Review	\$1,000/report	\$1,000 per report requested by the AER	Nil (incremental)

* Challenged by interviewees

Table 3.2 Summary of overall market compliance costs

	Option 1: reporting	Option 2: recording	Option 3: behavioural standard
Establishment costs	\$1.45 - \$2.55 million	\$0.9 - \$1.45 million	\$0 - \$0.3 million
Annual IT	\$0.3 - \$0.5 million	\$0.2 - \$0.3 million	\$0.05 million
Annual staff	\$4.95 million	\$3.3 million	Nil
Annual reporting review			
at \$1000/report	\$100 million	\$2.8 million	Nil

	Option 1: reporting	Option 2: recording	Option 3: behavioural standard
at \$100/report	\$10 million	\$0.3 million	Nil
Total ongoing costs (per annum)			
Lower bound estimate	\$15.3 million	\$3.8 million	\$0.05 million
Upper bound estimate	\$105.5 million	\$6.4 million	\$0.05 million

Overall, Oakley Greenwood found that the most significant costs were for businesses with a high volume of rebids, and in respect of IT establishment and trader staffing costs. Costs would be lower for the recording option compared to the reporting option, however Oakley Greenwood found that it would be difficult for high volume rebidding businesses to meet new recording or reporting requirements without additional staff. Oakley Greenwood has noted that the extent of any additional spend will depend on how robust the generator's existing systems are. It is possible that the IT establishment costs described above may include an element of moving systems to best practice, and may therefore represent an overestimate.

Proportionality

Given data limitations, it is unfeasible to perform a fully quantified cost-benefit analysis of the impact of the second draft rule. However, a high-level assessment indicates that the economic harms from deliberate late rebidding significantly outweigh additional compliance costs borne by participants. Simply comparing the estimated additional expenditure caused by deliberate late rebidding on two contract market products (caps and base futures), over two quarters in a single jurisdiction (Queensland), yields a figure of \$173 million in additional contracting costs. That is much higher than estimated annual compliance costs of \$4-\$6 million under the second draft rule.

The above estimate of additional contracting expenditure does not include any impacts on financial hedge products other than caps or base futures. Nor does it include contract market impacts in quarters two and three, or impacts in jurisdictions other than Queensland. Furthermore, it excludes any estimate of the other economic harms listed in section 3.2.3 above, including lost consumption, production and investment arising from inefficient price signals and increased market uncertainty. It is therefore likely that this is a significant underestimate of the harms arising from deliberate late rebidding.

As such, the Commission finds that while potential compliance costs are material, they are proportionate to the problem that the second draft rule seeks to address.

The Commission acknowledges that to date, material harms from deliberate late rebidding have been concentrated in particular jurisdictions while others have remained relatively unaffected. The rule change recognises this diversity of impact, while also recognising that the problem is enabled by the existing rules structure and has the potential to occur in other regions in the future. As such, the second draft rule

has been designed so as not to impose an undue regulatory burden on participants, while targeting the nature of the problem which is the systematic and deliberate withholding of information by some participants.

3.3.2 Stakeholder submissions

The materiality of late rebids

Submissions from stakeholders contained contrasting views regarding the extent to which late rebidding has been shown to be a problem in the NEM. There was general agreement with the Commission's findings that the more widespread occurrence of late rebidding, and rebidding towards the end of trading intervals, has been a recent phenomenon, occurring within the last two years and predominantly in Queensland and to some extent in South Australia. However, there was a diversity of views as to whether this represents a material issue that is worthy of regulatory change

Two generators, CS Energy and Stanwell, went so far as to argue that there is no evidence 'misleading' late rebidding has taken place. Stanwell stated that wholesale prices are correlated with demand, indicating that they are broadly efficient and rational.⁵⁴ CS Energy stated that the average delay between a change in circumstances and a rebid is small, and there is no correlation between the length of delay and an increase in price.⁵⁵

Other participants, while acknowledging that deliberate late rebidding has occurred, considered that the issue has arisen from unique conditions in Queensland and South Australia, which appears to be isolated in both time and location.⁵⁶ AGL suggested that the fact that South Australian late rebidding activity in 2013 subsequently subsided indicates that it was likely driven by the particular circumstances prevailing in that region at that time, rather than being symptomatic of an issue with the way the rules are drafted or participant compliance.⁵⁷ GDF Suez suggested that the recent issues in Queensland and South Australia are likely to evolve over time as those markets develop through structural change or new entry.⁵⁸ Broadly, the view of generators was that there is no systemic problem across the NEM, and that any changes in the rules which might lead to a greater compliance burden should be proportional to the minor and localised nature of the harm.⁵⁹

An alternative view taken by Visy and Arrium is that deliberate late rebidding may equally occur in other regions in the future, given the right supply, demand and infrastructure circumstances, while the rules governing the NEM remain the same.⁶⁰ ERM Power emphasised that it is the fact that late rebidding behaviour can occur, rather

54 Stanwell, submission on the draft determination, p. 9.

55 CS Energy, submission on the draft determination, p. 9

56 See submissions on the options paper from: Alinta Energy, p. 4; AGL, p. 2; EnergyAustralia, p. 2; Origin Energy, p. 3.

57 AGL, submission on the options paper, pp. 1-2.

58 GDF Suez, submission on the options paper, p. 6.

59 See submissions on the draft determination from: EnergyAustralia, p. 2; ESAA, p. 1; Delta Energy, p. 2; Alinta Energy, p. 2; Origin Energy, p. 3; AGL, pp. 1-2.

60 See submissions on the options paper from: Visy, p. 1; Arrium, p. 1.

than evidence of whether it has occurred, that justifies a more meaningful enforcement approach.⁶¹

Several demand-side participants argued that the impact of deliberate late rebidding on the NEM is already material. Major Energy Users (MEU) stated that the ability of generators to increase prices via late rebidding is significant, by a factor of over thirty times from the median.⁶² Visy stated that there has been a high correlation between high priced rebids and late dispatch intervals in Queensland, which is too statistically strong to be explained as a random outcome. This phenomenon has also been observed in South Australia, and reflects deliberate late rebidding.⁶³ The South Australian Government stated that in some jurisdictions, late rebidding and rebidding towards the end of trading intervals has recently increased.⁶⁴

Participants also qualitatively described the economic harms caused by deliberate late rebidding. EnerNoc argued that such behaviour causes inefficient price signals.⁶⁵ ERM stated that previously un-forecast high prices occurring late within a trading interval cannot be economically responded to by the market.⁶⁶ Visy stated that deliberate late rebidding disincentivises potential market entrants, such as peaking generators, and undermines confidence in the NEM.⁶⁷ MEU argued that the exercise of market power is unacceptable in any guise, regardless of the magnitude of effects.⁶⁸

The drivers of late rebidding

In determining whether recent occurrences represent a material problem, the majority of stakeholders discussed the extent to which these prices have represented efficient market outcomes that are consistent with the underlying market fundamentals.

A number of participants considered that the price impacts of late rebidding are analogous to instances of transient pricing power, which are an inherent feature of a workably competitive market.⁶⁹ Origin Energy referred to the AEMC's previous determination on the assessment of market power in the NEM in 2012 in which a distinction was made between transient pricing power and substantial market power, which involves the ability to sustain prices above the long-run marginal cost (LRMC) of new entrant generation for a significant period of time.⁷⁰ Transient pricing power is only a concern if it occurs frequently enough and to a significant magnitude to lead to

61 ERM Power, submission on the options paper, p. 4.

62 MEU, submission on the draft determination, p. 11.

63 Visy, submission on the draft determination, pp. 2-3.

64 SA Government, submission on the draft determination, p. 2.

65 EnerNoc, submission on the draft determination, p.1

66 ERM, submission on the draft determination, p. 1

67 Visy, submission on the draft determination, pp. 2-3.

68 MEU, submission on the draft determination, p. 11

69 See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 1; InterGen, p. 2; Snowy Hydro, p. 3.

70 Origin Energy, submission on the options paper, p. 2.

average annual wholesale prices being above the long-run marginal cost of new entrant generation.⁷¹

Several stakeholders suggested that, as prices in the NEM have remained below any plausible estimate of LRMC, it would suggest the materiality of any problem with late rebidding is low.⁷² AGL cited the analysis undertaken by AEMO to examine the impact of late rebids on annual average price outcomes as evidence of this low materiality.⁷³ InterGen considered that contract prices have also been on average materially below the LRMC of new entrant generation.⁷⁴

However, RWEST suggested that the late rebidding that has occurred recently has changed prices in ways that fail to reflect the underlying supply and demand fundamentals and that prices have been set at artificially high levels.⁷⁵ RWEST considered that many of the price spikes have occurred at times of high plant availability and with no other emerging fundamentals to justify the increase. Q Energy considered that the late rebidding practices engaged in over the last few months in Queensland have meant that other generation was unable to be dispatched in time, and consequently that prices were higher than they otherwise would have been had the market been functioning properly.⁷⁶

Efficiency of investment

Visy considered that the short duration of many of the price spikes seen in Queensland in the last two years, and the lack of warning that has typified these events, is a strong disincentive for intending new entrants to proceed with their investment decision.⁷⁷ Visy suggested that a new entrant fast start generator must be sure that it can dispatch its new generating units in sufficient time to take advantage of price spikes. ERM Power considered that it would be difficult to contemplate new generation capacity that could be built to efficiently remove the price impacts of late rebidding currently demonstrated in Queensland.⁷⁸

EnerNOC provided a similar view in response to the consultation paper that, in the case of late rebids, timing issues mean that consumers are unable to exercise choice, and new suppliers entering the market would make no difference to this pricing behaviour.⁷⁹ EnerNOC suggested that the nature of these price spikes may be particularly problematic at this time when other barriers to customer participation in the NEM are

71 ESAA, submission on the options paper, p. 1.

72 See submissions on the options paper from: ESAA, p. 1; InterGen, p. 2; GDF Suez, p. 6; Stanwell, p. 13; Origin Energy, p. 2.

73 AGL, submission on the options paper, p. 5. See: AEMO, *NEM 5 minute dispatch and 30 minute settlement – price impacts from late rebids*, 18 December 2014.

74 InterGen, submission on the options paper, p. 2.

75 RWEST, submission on the options paper, pp. 2-3.

76 Q Energy, submission on the options paper, pp. 5-6.

77 Visy, submission on the options paper, p. 7.

78 ERM Power, submission on the options paper, p. 4.

79 EnerNOC, submission on the consultation paper, pp. 3-4.

being removed.⁸⁰ EnerNOC considered that the potential for significantly increased levels of participation may not be realised if bidding behaviour continues to undermine confidence in the integrity of the wholesale market.

Origin Energy and EnergyAustralia contended that there is always likely to be some limitation in the ability of demand response to participate in a dynamic market such as the NEM, and that the limiting factor to the increased uptake of demand response has been the benign market conditions and lack of volatility brought on by the oversupply in the market.⁸¹

Structural drivers

There appears to be a view amongst some stakeholders that the recent ability of generators to engage in late rebidding in Queensland has arisen as a product of the unique structural conditions in that region.⁸² Q Energy noted that incidences of late rebidding have been especially prevalent in Queensland since the consolidation of the original three government owned generators into two corporations, with the attendant rebalancing of asset portfolios.⁸³

A number of stakeholders suggested that, in assessing the need for a change to the current regulatory framework, the underlying reasons for Queensland's divergence from the national trend should be examined first, including the extent to which any structural issues or transmission constraints have contributed to an increase in late rebids.⁸⁴ This would allow for a more targeted and appropriate response to the issue.

The South Australian Council of Social Service (SACOSS) suggested that, while the rules allow for the adverse behaviours, it is structural issues that determine the extent of the impacts in any given region.⁸⁵

3.3.3 The Commission's assessment

The Commission considers that transient pricing power should only be of concern if it occurs frequently enough and to a sufficient magnitude that average prices are sustained above new entrant LRMC for a period of time. However, the Commission does not consider that this definition of transient pricing power can be applied to late rebidding.

The reason that average prices are compared against LRMC is to measure the extent to which a new entrant could cover its costs and incur a profit upon investment. Substantial market power is deemed to occur if this price signal for investment exists but barriers to entry prevent the new investment from taking place.

⁸⁰ EnerNOC, submission on the options paper, p. 1.

⁸¹ See submissions on the options paper from: Origin Energy, p. 3; EnergyAustralia, p. 2.

⁸² See submissions on the options paper from: QGC, p. 1; AGL, pp. 1-2; Alinta Energy, pp. 3-4; GDF Suez, pp. 6-7; Q Energy, p. 6; Arrium, p. 1.

⁸³ Q Energy, submission on the options paper, p. 6.

⁸⁴ See submissions on the options paper from: Origin Energy, p. 3; ESAA, p. 5; GDF Suez, p. 6; Stanwell, p. 10.

⁸⁵ SACOSS, submission on the options paper, p. 1.

However, the price impacts from late rebidding cannot be considered as an efficient price signal for investment because they can have the effect of precluding the occurrence of a competitive demand or supply side response in the short term. Despite the high market prices, investment in new fast-response plant or demand-side activities are not likely to be economic, as they would not be able to react to the short timeframes involved and respond to the short term prices created through late rebidding.

Alternatively, if a fast-response plant could be built to respond to the prices created through late rebids, it is likely to be an inefficient investment due to the higher costs involved in building to meet the short response timeframes.

The Commission acknowledges the general consensus among stakeholders that a change in generator ownership in Queensland has had a role to play in recent instances of late rebidding.⁸⁶

In the Options Paper, the Commission noted that it would need to carefully consider any regulatory response which applied to all participants in the NEM to address an inefficiency that may be largely a product of conditions specific to certain regions. This position is consistent with the Commission's 2013 determination regarding the negative offers from scheduled network service providers rule change, where the Commission formed the view that "engineering a solution to a problem that does not stem from the operation of the rules, but from competition and market structure issues, would be an inappropriate use of the Commission's rule making powers".⁸⁷

Basslink's bidding behaviour that was considered in the above rule change was a function of Hydro Tasmania's dominant position in the Tasmanian region, combined with a commercial agreement outside of the NEM that allowed Hydro Tasmania to direct Basslink to make negative price offers. Unlike this situation, the ability for generators to attempt a strategy of late rebidding does not depend on ownership structures in particular regions, nor does it depend on a specific commercial agreement. Late rebidding is solely enabled by the rules.

The probability that a late rebidding strategy will be commercially successful is likely to be enhanced in an environment where the supply and demand balance is tight and/or ownership is concentrated. However, the Commission notes that these factors are not prerequisites for late rebidding to occur and, depending on the market conditions, this behaviour could be attempted by relatively small merchant generators or large portfolios of generators.

For these reasons the Commission considers that, while late rebidding and the associated issues have recently manifested themselves in Queensland, there is the potential for this behaviour to occur elsewhere in the NEM. As the ability to engage in late rebidding is solely a function of the rebidding framework in the rules, the Commission is of the view that it is appropriate to address this issue through the rule making process.

⁸⁶ Since Tarong Energy was dissolved by the Queensland Government in 2011, two entities now control 66 per cent of generation capacity in Queensland (AER 2014, SOEM, p. 36).

⁸⁷ AEMC, *National Electricity Amendment (Negative offers from SNSPs) Rule 2013*, p. 28.

The Commission considers that the market design should set reasonable boundaries on the ability of participants to influence price outcomes through the rebidding arrangements, where these arrangements impose inefficient costs on other participants that are inconsistent with a well-functioning wholesale electricity market. Such an approach recognises that late rebidding is a function of the current rules and the possibility that conditions conducive to late rebidding have the potential to arise in other regions of the NEM in the future.

4 A behavioural statement of conduct

This chapter sets out the Commission's second draft rule which amends the existing good faith provisions. The Commission's reasons for the second draft rule are discussed in the context of the existing good faith provisions, the changes that were proposed as part of the rule change request, and the submissions made in relation to the first draft determination.

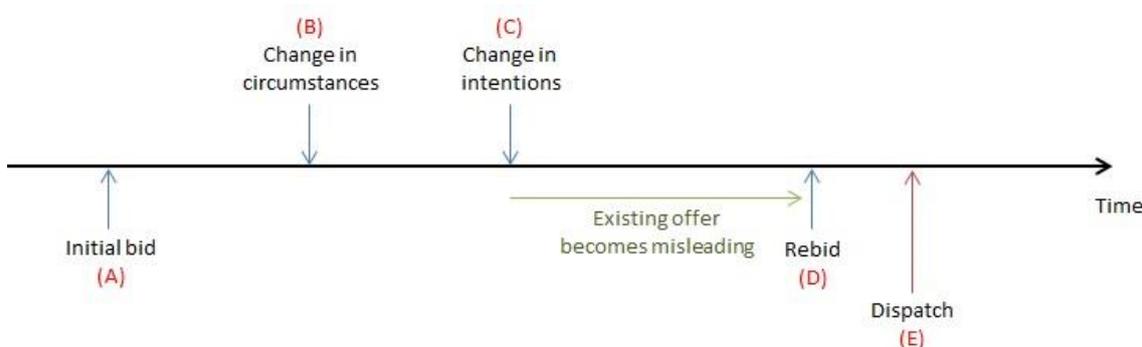
4.1 Bidding behaviour and participant intention

As set out in Chapter 3, generators deliberately delaying the submission of rebids until close to dispatch can limit the opportunity for potential responses from other participants. The price impacts from this form of behaviour may not be reflective of competitive market outcomes, which may undermine the purpose of the market as a mechanism to encourage efficient investment.

The fact that a participant can submit an initial bid or offer in the knowledge that a rebid may be submitted at any point up until the time of dispatch can give rise to circumstances where a participant's market offers or bids may be misleading with respect to their intentions for dispatch.

Figure 4.1 provides an illustration of the time interval during which a bid or offer becomes misleading with respect to the generator's intentions for dispatch. At some point in time following the submission of the initial bid (A) there is a change or changes in the material conditions and circumstances upon which that initial bid or offer was based (which could include a trader's subjective expectations not being met). (B). Upon becoming aware of the change in material conditions and circumstances, the generator may change its intentions at dispatch and decide to rebid (C). It is at this point in time that the generator's existing offer is no longer reflective of the generator's intentions for dispatch. The offer becomes misleading with respect to the generator's intentions until such time that the generator submits a rebid (D) that reflects its true intentions for dispatch (E).

Figure 4.1 A misleading dispatch offer



As such, a generator's offer can be considered as a representation of the generator's willingness to provide supply at the prices it has specified for so long as there is no change in the material conditions and circumstances upon which that offer was based.

Therefore, bidding behaviour which is misleading need not only arise through a generator's initial offers but could be applied to any circumstance where a generator's existing offers to the market are not reflective of its true intentions for dispatch.

Generator bidding behaviour is currently regulated in the NER through the good faith bidding provisions, which can be described as a behavioural statement of conduct.

Clause 3.8.22A of the NER sets out the following requirements:

1. Market participants must make an offer, bid or rebid in relation to available capacity and daily energy constraints in good faith.
2. An offer, bid or rebid is taken to have been made in good faith if, at the time of making the offer, bid or rebid the market participant had a genuine intention to honour that offer, bid or rebid if the material conditions and circumstances upon which the offer, bid or rebid was based remain unchanged until the relevant dispatch interval.
3. A market participant may be taken to have contravened the good faith requirement even if the intention of the participant is ascertainable only by inference from the conduct of the relevant market participant or another person, or the relevant circumstances.

Under the existing good faith provisions, an offer that the generator does not intend to honour under any circumstances, or is misrepresentative of its capability to comply with if dispatched, is already prohibited. However, these provisions are subject to the difficulty of the AER being able to prove that the generator did not have a genuine intention to honour its offer or rebid at the time it was made.

The existing good faith provisions do not prohibit a generator submitting an offer, in the knowledge that it may be honoured, but then subsequently changing its intentions for dispatch without reflecting those intentions in a rebid as soon as practicable.

As long as there is a genuine intention to honour the offer or rebid at the time it is made, the obligations of the good faith provisions are satisfied. The fact that the generator makes a late rebid does not in itself imply that the generator did not intend to honour the previous offer or rebid at the time it was made. As such, the current provisions do not capture the situation where the participant's intentions change and the participant's initial offer becomes misleading with respect to its true intentions for dispatch.

4.1.1 Stakeholder submissions

The existing good faith provisions

Submissions to both the consultation paper and options paper contained a wide diversity of views with respect to the effectiveness of the existing good faith provisions and whether a change to the provisions is required.

A number of participants supported retaining the good faith provisions as currently drafted.⁸⁸ The National Generators Forum (NGF) suggested that the high standard of

⁸⁸ See submissions on the options paper from: AGL, p. 4; ESAA, p. 2; Stanwell, pp. 8-9; Origin Energy, p. 4; EnergyAustralia, p. 4; Alinta Energy, p. 4; GDF Suez, p. 5. NGF, submission on the consultation paper, p. 4.

generator rebidding compliance has been evidenced by the fact that in twelve years of good faith bidding there has only been one court action and nine fines issued.⁸⁹ Origin Energy suggested that one failure to secure a conviction does not mean that the existing provisions are inadequate.⁹⁰

AGL considered that changes to the good faith provisions would only serve to introduce uncertainty amongst traders and generators, undermining their ability to respond to changing conditions and hindering efficient market outcomes.⁹¹

Alternatively, a number of participants highlighted the difficulties with enforcing the current provisions and supported either strengthening the good faith provisions or implementing an alternative behavioural statement of conduct.⁹² ERM Power questioned the enforceability of the existing provisions given that the legal interpretation relies on the intention of the trader when making an offer or rebid.⁹³ RWEST suggested that the good faith provisions are unenforceable in practice in the absence of clear evidence of bad faith, such as a written statement that a bid would not be honoured.⁹⁴

Amending the good faith provisions

A number of stakeholders provided comments on the options discussed in the options paper. This included support for the concept of removing the reference to a 'change in material conditions and circumstances' but retaining the requirement that generators must have a genuine intention to honour their offers, bids and rebids at the time they are made, thereby leaving clause 3.8.22A as a general "good faith" obligation.⁹⁵ Alinta Energy suggested that this would simplify the existing provisions and remove issues associated with how to interpret whether a "change" has occurred, and whether such a change was "material".⁹⁶

Visy also outlined what it sees as potential benefits of a general "good faith" obligation, by pointing to the number of elements in the existing good faith provisions that make them potentially ineffectual.⁹⁷ Visy suggested that a non-prescriptive definition with reference to a common meaning of the words "good faith" stands a much better chance of targeting behaviour of questionable intent, although Visy suggested that a simpler and clearer approach may still be ineffectual because of the difficulty in proving intent.

⁸⁹ NGF, submission on the consultation paper, p. 4.

⁹⁰ Origin Energy, submission on the options paper, p. 4.

⁹¹ AGL, submission on the options paper, p. 4.

⁹² See submissions on the options paper from: SACOSS, p. 2; ERM Power, pp. 5-6; AEMO, p. 4; SA Government, p. 3; MEU, p. 3; Visy, p. 12; QGC, p. 2; Arrium, pp. 6-7.

⁹³ ERM Power, submission on the options paper, pp. 5-6.

⁹⁴ RWEST, submission on the options paper, p. 4.

⁹⁵ See submissions on the options paper from: Alinta Energy, p. 3; AGL, p. 4; EnergyAustralia, p. 4; ESAA, p. 5; GDF Suez, p. 10; Visy, p. 19; Arrium, p. 6.

⁹⁶ Alinta Energy, submission on the options paper, p. 3.

⁹⁷ Visy, submission on the options paper, p. 19.

The potential ineffectiveness of a general "good faith" obligation is a view also shared by the MEU and AEMO.⁹⁸ AGL suggested that there is a risk that it would only serve to introduce uncertainty amongst traders and generators, who have grown familiar with the existing market rules and the framing of the good faith obligations.⁹⁹

Consideration of financial market regulations

A shortcoming of the current provisions, suggested by RWEST, ERM Power and Queensland Gas Company (QGC), is that they do not address the regulatory gap between the physical market and the financial contract market.¹⁰⁰ RWEST noted that the provisions of the *Corporations Act 2001* which regulate the behaviour of participants in financial markets cannot be applied conversely to activities in the underlying physical markets. RWEST suggested that the Corporations Act has no power to prevent participants from manipulating the underlying physical market to set prices at artificial levels and to leverage the benefit through a financial contract position.

ERM Power agreed that the Corporations Law does not currently address instances of market manipulation through the underlying physical market but suggested that these provisions may be of assistance as a template for a new behavioural statement in the NER.¹⁰¹

Both RWEST and ERM Power noted that previous case law on the interpretation of section 1041A of the Corporations Act has shown that it is sufficient to demonstrate that the price was set with the sole or dominant purpose of setting or maintaining the price at a particular level rather than establishing that the price did not reflect genuine forces of supply and demand.¹⁰² However, AEMO suggested that the concepts of market manipulation and artificial price used in Corporations Law may be difficult to apply in the context of the NEM due to the inherently high level of price volatility which is necessary to provide required operational and investment signals.¹⁰³

RWEST suggested that the behavioural statement of conduct should focus on the behaviours themselves, and their consequences, rather than the mind-set of the trader.¹⁰⁴ Visy considered that, while proving effect under such an approach may be challenging, it is likely that it would be far more effective than the current intent based approach.¹⁰⁵

However, Visy did raise concern that behavioural statements by nature leave a large amount of discretion to the court which may not end up being interpreted in a manner originally intended by policy makers.¹⁰⁶ Visy suggested that a successful prosecution

98 See submissions on the options paper from: AEMO, p. 4; MEU, p. 3.

99 AGL, submission on the options paper, p. 4.

100 See submissions on the options paper from: RWEST, p. 4; QGC, p. 2; ERM Power, p. 6.

101 ERM Power, submission on the options paper, p. 6.

102 See submissions on the options paper from: RWEST, p. 7; ERM Power, p. 6.

103 AEMO, submission on the options paper, p. 4.

104 RWEST, submission on the options paper, p. 4.

105 Visy, submission on the options paper, p. 20.

106 Visy, submission on the options paper, p. 12.

will inevitably come after the damage is done and may not be successful in deterring similar behaviour in the future depending on how clear and decisive the court's findings are. This concern was also raised by QGC.¹⁰⁷

4.2 The South Australian Government's rule change request

The South Australian Government's proposed changes to the NER would:¹⁰⁸

1. recast the good faith bidding provisions in the negative such that a rebid would be taken not to be made in good faith unless, at the time of making the bid, the generator had a genuine intention to honour that bid if material circumstances remain unchanged;
2. provide that a variation to an offer or rebid must be made as soon as practicable after a change in material circumstances comes to its attention;
3. provide that a variation to an offer or rebid must not be made unless it is in response to a significant and quantifiable change in price, demand or other data published by AEMO, or other relevant circumstances;
4. provide that the non-fulfilment of a trader's subjective expectation as the result of a rebid is not a change in material circumstances; and
5. allow the AER to assess the intention of a participant by having regard to all of the offers, bids and rebids that the participant has substantial control over.

4.2.1 The South Australian Government's view

Recasting the provisions in the negative

The South Australian Government considers that, by recasting the good faith bidding provisions in the negative, the AER would be able to more effectively determine the intentions of the trader at the time of making a rebid. The South Australian Government considers that starting from the position that rebids are not made in good faith would place the trader in a position where they would be required to demonstrate what their intentions were at the time of making the rebid.

The South Australian Government considers that the proposed rule has benefits as it would mean that if a generator made a rebid without an observable material change in circumstances, then it would require the generator to demonstrate what material circumstances had changed as the basis for their rebid. The South Australian Government considers that, if a generator makes a rebid without an intention to honour that rebid, then this approach is more likely to reveal that the generator has not acted in good faith.

A change in objective circumstances

The rule change request also proposes to include a separate note under clause 3.8.22A(e) to make clear that if a generator makes a rebid on the basis of certain

¹⁰⁷ QGC, submission on the options paper, p. 2.

¹⁰⁸ South Australian Minister for Mineral Resources and Energy, *Rule change request – bidding in good faith*, 13 November 2013, pp. 10-14.

expectations, and those expectations are not met, then this would not be considered as a change in material circumstances.

The South Australian Government considers that a rebidding generator should readily be able to identify an objective and justifiable cause for any rebids it submits to AEMO. While the South Australian Government notes that this would require generators to keep information to substantiate that their rebidding practices have complied with the good faith provisions, it contends that this should not require a significant change to existing practices and should therefore not be overly burdensome on the generator.

Further, the South Australian Government considers that the amendments should in no way prevent participants from rebidding where there is a genuine need to do so and that the proposed changes would still provide participants with the flexibility necessary to adjust their positions to accommodate changes in the market.

In support of this change, the South Australian Government considers that the term "material conditions and circumstances" should be changed to "material circumstances" as it is potentially unclear as to whether material conditions may refer to the conditions subjectively viewed by the trader.

The South Australian Government has also raised concern that there is a significant degree of ambiguity around the definition of the term "material" which is used to limit when a rebid occurs. A wide interpretation of what constitutes a material condition and circumstance implies a large number of circumstances under which a participant may rebid.

The South Australian Government considers there should be an objectively observable and quantifiable reason used as the basis for rebids and that a minor change in circumstances should not be considered justification for a rebid.

Rebidding as soon as practicable

The South Australian Government also has concerns regarding instances when generators have made rebids on the basis of information that was known at the time of a previous bid or failed to make a rebid within a reasonable period of the generator becoming aware of the change in material conditions and circumstances.

The South Australian Government considers that, in order for participants to reasonably be able to rely on pre-dispatch forecasts, generators should be required to take into account all existing material circumstances when making an offer or rebid. If there is a change to any of those material circumstances, to reflect those changes in rebids as soon as practicable.¹⁰⁹

The South Australian Government notes that generators currently have an incentive to rebid very close to the relevant dispatch interval in order to limit the time available for other supply or demand-side participants to respond. In a number of instances, the change in market conditions that was noted as the reason for the rebid was known ahead of time.

¹⁰⁹ South Australian Minister for Mineral Resources and Energy, *Rule change request – bidding in good faith*, 13 November 2013, pp. 11-12.

The South Australian Government highlights that, the closer a rebid occurs to the relevant dispatch interval, the fewer the number of participants that can respond within the time available and that there are no limitations in the NER that govern the proximity in time to a dispatch interval that a generator may rebid.

The South Australian Government considers that requiring rebids to be made as soon as practicable after the trader becomes aware of new information will improve the reliability of pre-dispatch forecasts and allow other market participants time to develop an appropriate response.

4.2.2 Stakeholder submissions on the South Australian Government's proposed rule

A change in objective circumstances

A significant point of contention in submissions on the proposed rule was the nature of the change in material conditions and circumstances that could be relied upon when making a rebid. A number of stakeholders were concerned about limiting the legitimate reasons for a rebid to objectively observable changes in circumstances.¹¹⁰

The ESAA suggested that generators have complete information around their own costs but incomplete information around their competitors' costs and strategies. As such, traders always need to use judgement when making rebids and therefore need the opportunity to change bids on the basis of outcomes that were expected but did not eventuate.¹¹¹ EnerNOC agreed that a rebid based on an expectation that does not eventuate may be just as valid as one based on an observable change in market conditions.¹¹²

AGL suggested that limiting the factors permitted to be taken into account by market participants before making a rebid would mean that the proposed rule would have an adverse impact on market efficiency.¹¹³

RWEST suggested that each and every rebid could in theory result from a change in subjective expectations, which effectively renders the existing good faith provisions unenforceable in practice in the absence of clear evidence of bad faith.¹¹⁴ However, RWEST equally did not support the exclusion of subjective expectations as a reason for a rebid as this would unduly restrict genuine price formation, result in inefficient dispatch, and potentially endanger security of supply.

Alinta Energy also raised concern in relation to what changes in conditions and circumstances would be interpreted as subjective, which may potentially require traders to second guess whether information would be considered to represent a change from the perspective of the AER.⁸⁴ Alinta Energy also extended this argument as to

110 See submissions on the options paper from: RWEST, p. 4; ESAA, p. 4; Stanwell, p. 6.

111 ESAA, submission on the options paper, p. 4.

112 EnerNOC, submission on the options paper, p. 3.

113 AGL, submission on the options paper, p. 3.

114 RWEST, submission on the options paper, p. 4.

whether a change in conditions would be significant enough in the view of the AER to constitute a sufficiently material reason for making a rebid.¹¹⁵

Recasting the provisions in the negative

Arrow Energy and Alinta Energy suggested that recasting the good faith provisions in the negative would merely shift the burden onto the generator to demonstrate good faith without providing further context or definition as to what is considered to be a material change.¹¹⁶

There was also concern raised by a number of stakeholders that recasting the provisions in the negative would have the effect of raising compliance and regulatory costs for participants.¹¹⁷ InterGen suggested that, in order to meet this obligation, generators would necessarily need to compile extensive support material at the time of each rebid. This would create an onerous obligation at significant cost and may lead to more conservative rebidding to the detriment of market efficiency.¹¹⁸

CS Energy raised concern that any error to record the reason for changing an offer could be used to infer a lack of good faith. It would be unreasonable for a trader to be exposed to a \$1m penalty because they failed to record the change in material conditions and circumstances that was the basis for their rebid.¹¹⁹ ERM Power and GDF Suez suggested that such a proposal would be inconsistent with the objective of light-handed regulation.¹²⁰

Rebidding as soon as practicable

Stakeholders also raised concerns in relation to the extent of the information that would need to be provided and how this relates to the timing of rebids. Alinta Energy suggested that the requirement in the proposed rule to rebid as soon as practicable presupposes that information is material at a point in time, at which time a decision to rebid is made.¹²¹ Alinta Energy suggested that in fact markets are dynamic with participants revisiting and reinterpreting information on an ongoing basis. InterGen considered that a generator may not seek to rebid when a change in material circumstances becomes known, preferring to first wait for confirmation of further events or other triggers, or undertaking additional analysis before making a rebid.¹²²

In its submission on the options paper, the South Australian Government clarified that if a combination of circumstances is used to justify a material change, the intent of the proposed rule is that the 'as soon as practicable' provision applies in relation to the

115 Alinta Energy, submission on the options paper, p. 3 and p. 8.

116 See submissions on the consultation paper from: Arrow Energy, p. 3; Alinta Energy, p. 3.

117 See submissions on the consultation paper from: InterGen, p. 3; Arrow Energy, p. 3; CS Energy, p. 8; ERM Power, p. 1; GDF Suez, p. 3; Alinta Energy, p. 3.

118 InterGen, submission on the consultation paper, p. 3.

119 CS Energy, submission on the consultation paper, p. 8.

120 ERM Power, submission on the options paper, p. 1; GDF Suez, submission on the consultation paper, p. 3.

121 Alinta Energy, submission on the consultation paper, p. 5.

122 InterGen, submission on the consultation paper, p. 3.

occurrence of the last circumstance being relied on in the combination.¹²³ The South Australian Government also acknowledged that participants may see different periods of time as reasonable but that further clarity on this should develop with consideration and feedback from participants and the AER.

4.2.3 The Commission's view of the proposed rule

The Commission does not consider that the proposed rule to limit the reasons for a rebid to objectively observable changes in conditions and circumstances would benefit the market in the long term interests of consumers. The exclusion of participants' subjective expectations as a reason for a rebid may have the effect of restricting efficient price discovery.

While only permitting rebids on the basis of objective changes in market conditions may increase the enforceability of the good faith provisions, this is likely to come at the expense of less efficient market outcomes. As discussed in section 3.1.1, it is not the change in market conditions that triggers generators to adjust their position but rather the change in their expectations. While a change in the environment that is readily observable and objective may trigger a change in expectations, it could also occur in the absence of such a change. As such, a rebid based on an expectation that does not eventuate is equally as valid in arriving at an efficient outcome as a rebid based on an objectively observable change in market conditions.

Further, the Commission agrees with the concern raised by some stakeholders that there would inevitably be a degree of ambiguity as to what would constitute an objective change in market conditions. The Commission does not see that, for all changes in market conditions, there can be a clear distinction made between what is objectively observable and what is a subjective view held by the trader.

As such, the Commission considers that prohibiting rebids based on subjective expectations would be difficult to apply in practice and would likely increase levels of uncertainty in compliance with the rules. This may increase costs to market participants, which would flow through to higher costs for consumers.

The Commission also has concerns in relation to the proposal to recast the provisions in the negative such that an offer or rebid would be considered to not be in good faith unless the generator can demonstrate otherwise.

Without clear guidance as to what would constitute a material change in conditions and circumstances, such a proposal would be likely to significantly increase regulatory uncertainty and compliance costs for participants, which may lead to more conservative bidding and inhibit the discovery of efficient price outcomes.

It also raises the possibility that a generator may be found to have breached the good faith provisions simply because it failed to provide satisfactory records, despite the fact that it may actually have had a genuine intention to honour its offer or rebid.

¹²³ SA Government, submission on the options paper, p. 5.

4.3 The first draft rule

The Commission made a first draft rule in response to the South Australian government's rule change request. In respect of the behavioural statement that first draft rule:

- recast the obligation to bid in good faith as a prohibition on offers that are false, misleading or likely to mislead;
- enabled the court to refer to the participant's pattern of conduct in determining whether an offer was false, misleading or likely to mislead;
- included a deeming provision providing that an offer would be taken to be false or misleading if, at the time of making the offer, the participant
 - did not have a genuine intention to honour; and
 - did not have a reasonable basis to represent other market participants through the pre-dispatch schedules published by AEMO that it will honour, that offer, bid or rebid if the material conditions and circumstances on which the offer, bid or rebid was based remain unchanged until the relevant dispatch interval;
- included a new obligation on participants to rebid as soon as reasonably practicable after becoming aware of a change in material conditions and circumstances;
 - in determining whether a rebid was made as soon as reasonable practicable, the court was required to have regard to whether a rebid was made in sufficient time to provide a reasonable opportunity for other market participants to respond.

4.3.1 Submissions on the first draft rule

False, misleading or likely to mislead

A range of stakeholders, including both generators and demand-side users, considered that replacing the positive obligation to bid in good faith with a prohibition on making offers which are false, misleading or likely to mislead would create a more objective test, providing an additional degree of clarity to participants and stakeholders.¹²⁴

Both MEU and SACOSS were concerned that the draft rule dealt inadequately with the issue of subjective expectations. These stakeholders argued for retaining the provision in the original rule which stated that the non-fulfilment of a trader's subjective expectations does not count as a change in material circumstances.¹²⁵

Sun Metals stated that there is considerable uncertainty as to whether the obligation not to make bids that are misleading will provide an effective deterrent against deliberate late rebidding, as this will need to be tested in court. It will potentially be costly for the

¹²⁴ See submissions on the draft determination from: GDF, p. 2; ERM, p. 1; Visy, p. 4; PIAC, p. 2; RWE, p. 2.

¹²⁵ See submissions on the draft determination from: MEU, pp. 9-10; SACOSS, pp. 1-2.

AER to make and defend its provision, which will cause it to err on the side of caution.¹²⁶

Alinta was concerned that the AER (and potentially courts) lack understanding of market conditions and bilateral commercial arrangements. As such, they would be unable to assess participants' behaviour to determine whether the false, misleading or likely to mislead provision had been breached.¹²⁷

EnergyAustralia argued that the current 'good faith' requirements already prohibit false and misleading bids, and that the change in drafting would confer no obvious benefits but would create uncertainty for participants and regulators.¹²⁸

Rebidding as soon as reasonably practicable

RWE and EnergyAustralia supported the requirement to rebid as soon as reasonably practicable.¹²⁹

GDF supported the policy intent but suggested that the wording be changed to state that the participant should bid as soon as practicable after the intention had been formed, which occurs after the material change in conditions.¹³⁰

Stanwell, Origin and Alinta were concerned about the practical implementation of this provision. Stanwell stated that it supported the requirement in principle, but considered there was difficulty and subjectivity in determining when the intention to rebid was formed and what a 'reasonable' time in between the change in circumstances and the formation of the intent would be.¹³¹ Origin stated that there would be an inherent level of ambiguity and that what is reasonable would depend on many factors that would vary between individuals, including businesses' internal governance procedures and changing market conditions.¹³² Alinta also highlighted the differences between businesses, and suggested that industry be consulted when developing the technical guidelines associated with this provision.¹³³

The AER suggested removing the word 'reasonably' in order to strengthen the obligation for participants to submit rebids as soon as feasible after the change in conditions.¹³⁴

Time for other market participants to respond

Generators were virtually unanimous in opposing the clause which provided that a court must consider the ability of other market participants to respond to a offer or rebid when considering a breach of the requirement to rebid as soon as reasonably

¹²⁶ Sun Metals, submission on the draft determination, p. 2.

¹²⁷ Alinta, submission on the draft determination, p. 3.

¹²⁸ EnergyAustralia, submission on the draft determination, p. 2.

¹²⁹ See submissions on the draft determination from: EnergyAustralia, p. 2; RWE, p. 2

¹³⁰ GDF, submission on the draft determination, p. 3.

¹³¹ Stanwell, submission on the draft determination, p. 13.

¹³² Origin, submission on the draft determination, p. 3.

¹³³ Alinta, submission on the draft determination, p. 3.

¹³⁴ AER, submission on the draft determination, p. 2.

practicable.¹³⁵ Generators argued that the clause would require participants to consider information outside of their knowledge before making a rebid, that is, the position, technical capacities, and internal governance procedures of their competitors.¹³⁶ Snowy Hydro and ESAA argued that the clause was superfluous once the obligation to rebid as soon as reasonably practicable is taken into account, and potentially in conflict with this obligation.¹³⁷

Pattern of conduct

The AER stated that the first draft rule provision confirming that the court can have regard to inferences arising from a pattern of conduct exhibited by the generator would assist with the enforcement of the prohibition against false and misleading behaviour.¹³⁸

Stanwell and GDF stated that courts are already able to refer to a generator's pattern of conduct and that the provision is superfluous.¹³⁹ Stanwell suggested that a pattern of rebids just before dispatch may not imply misleading conduct, but may instead reflect more up to date expectations which emerge close to dispatch.¹⁴⁰

CS Energy stated that there is no link between the bid that is assumed to be false and misleading and bids made on another day or in relation to a different trading interval.¹⁴¹

4.4 Overview of the second draft rule

This section provides an overview of the Commission's second draft rule.

4.4.1 Prohibition on false or misleading bidding

The Commission has determined to amend clauses 3.8.22A(a)-(c) of the NER by recasting these provisions from imposing an "in good faith" obligation to imposing a prohibition on making offers, bids or rebids that are false, misleading or likely to mislead.

The Commission considers that by recasting clause 3.8.22A from an "in good faith" obligation to a prohibition on making offers, bids and rebids that are false, misleading or likely to mislead, the rules would treat all offers, bids and rebids as a representation of a generator's intentions to supply electricity at particular prices. If a generator were to change its intentions for dispatch, and decided to make a rebid to reflect its changed intention, then its original offer would become misleading for so long as it failed to make such a rebid.

¹³⁵ First draft rule clause 3.8.22A(e)(2).

¹³⁶ See submissions on the draft determination from: EnergyAustralia, p. 4; GDF, p. 4; Delta, p. 3; CS Energy, p. 20; Origin, p. 4.

¹³⁷ See submissions on the draft determination from: Snowy Hydro, p. 2; ESAA, p. 2.

¹³⁸ AER, submission on the draft determination, p. 3.

¹³⁹ See submissions on the draft determination from: Stanwell, p. 17; GDF, p. 3.

¹⁴⁰ Stanwell, submission on the draft determination, p. 17.

¹⁴¹ CS Energy, submission on the draft determination, p. 22.

The Commission proposes that the prohibition would apply to all offers, bids and rebids and not just to changes in available capacity and daily energy constraints (which the existing good faith bidding provisions are restricted to). Generally conduct will be misleading where it is inconsistent with the truth and thereby induces, or is capable of inducing, error. In determining whether conduct is false or misleading a court will undertake a two-step analysis:

- first, it is necessary to characterise the meaning and nature of the representation made to the relevant audience or market; and
- secondly, the court will determine, as a question of fact, whether this representation was false, misleading or likely to mislead.

If the meaning and nature of the representation is defined in the rules, then the question to be argued before the court becomes whether, as a question of fact, the representation was false or misleading.

The Commission considers that the representation made when a generator submits an offer is a representation by that generator (which is made to other market participants through the pre-dispatch schedules published by AEMO) that its offer will not be changed unless the generator becomes aware of a change in the material conditions and circumstances upon which the offer was based. This representation is capable of being false or misleading if the generator does not intend to honour its offer, or the generator rebids without there being a change in the material conditions and circumstances upon which the initial offer was based.

The Commission has therefore determined to include a new clause 3.8.22A(a1) in the second draft rule which sets out what an offer, bid or rebid is deemed to represent to other market participants when it is made. This clause will define what is being represented to the market when an offer, bid or rebid is made. It will not define what an offer, bid or rebid is, what information must be submitted to AEMO, or how participants are to participate in central dispatch and spot market operations under clause 3.8 of the NER (these matters are already defined in the rules). Through providing more certainty on what is being represented, this clause should avoid any ambiguity as to what this representation is.

The clause will be restricted in its application to clause 3.8.22A(a). It will not impact on any other clauses in the remainder of Chapter 3 which reference bids and offers.

Deeming provision

Clause 3.8.22A(a) of the second draft rule contains a broad prohibition on making bids, offers or rebids that are false, misleading or likely to mislead. Within this universe of potentially false and misleading offers and bids is clause 3.8.22A(b) which is a subset of behaviour, described in greater detail than the broader prohibition, that is deemed to be false or misleading.

This deeming provision provides that an offer, bid or rebid is deemed to be false or misleading if, at the time of making the offer, bid or rebid, the market participant:

1. does not have a genuine intention to honour; or
2. does not have a reasonable basis to make,

the representations made by reason of clause 3.8.22A(a1), that the offer, bid or rebid will not be changed unless the participant becomes aware of a change in the material conditions and circumstances upon which the offer, bid or rebid is based.

This provision has been amended following submissions received to the first draft determination and first draft rule. Under the deeming provision in the first draft rule, the AER would have had to prove both a lack of genuine intention and a lack of reasonable basis to represent for a bid or offer to be deemed to be false and misleading. The AER submitted that satisfying both elements of the test would be very difficult, especially given the difficulty in proving lack of genuine intention.

While the AER acknowledged that the deeming provision sets out one set of circumstances where an offer or bid is conclusively deemed to be misleading, it submitted that having to satisfy both the requirement for lack of genuine intention and lack of reasonable basis to represent was too narrow. In addition, the AER stated that having to satisfy both limbs of this clause is at odds with the application of the concept of false and misleading under competition law principles, where only one limb of the test would need to be satisfied to establish that the relevant behaviour was false or misleading.

The Commission notes that the second draft rule introduces an objective test into the rules, whereby (unlike the good faith provisions) in some cases intention will not have to be proven for a breach of the rules to be established. Clause 3.8.22A(a) is directed to the effect of what a generator represents to the market by its offer or rebid, i.e. whether the rebid was false, misleading or likely to mislead. Whether a contravention was committed intentionally or not is a matter that goes only to the quantum of penalty.

The Commission considers that when it comes to the practicalities of proving a breach of clause 3.8.22A(a), the AER is likely first to look to the deeming provision in paragraph (b), and its two limbs: genuine intention and reasonable basis. Proving the genuine intention limb requires the AER to prove that, subjectively, the generator did not intend to honour its offer. However, the AER could also establish a breach of clause 3.8.22A(a) by relying on the “reasonable basis” limb in subparagraph (b)(ii)¹⁴² which does not require proof of intention.

The Commission determined that the deeming provision be amended in the second draft rule so that a deemed breach of the rules can be established under either of the two limbs in this provision rather than both being required.

One example of behaviour that could be covered by relying only on the “reasonable basis to represent” limb is a situation where it is not able to be proven that the generator had the actual intent not to honour its offer, but the AER alleges that there was a consistent pattern of the generator making a low initial offer but then rebidding volume to higher price bands in the last dispatch interval of a trading interval, without any obvious change in “material conditions and circumstances”. This could provide an indication that there was a lack of a reasonable basis to represent that the offer, bid or rebid would not be changed unless in response to a change in material conditions and circumstances. This clause should therefore give the AER greater ability to bring an enforcement action where such behaviour is observed.

¹⁴² Of clause 3.8.22A.

Breach can be ascertained by inference in some circumstances

The Commission has also determined to amend clause 3.8.22A(c) to provide that a participant may be taken to have breached the prohibition on making offers, bids and rebids that are false, misleading or likely to mislead even if the false or misleading character of the offer, bid or rebid is ascertainable only by inference from:

1. other offers, bids or rebids made by the generator or market participant, or in relation to which it had substantial control or influence;
2. other conduct (including any pattern of conduct), knowledge, belief, or intention of the generator or market participant, or of any other person;
3. information published by AEMO to the relevant generator or market participant; or
4. any other relevant circumstances.

This reflects that, among other things, where there are offers, bids or rebids that are false, misleading or likely to mislead, this may not be directly observable from individual instances. Instead it may require an assessment of a range of conduct to draw the conclusion that such behaviour has occurred.

In addition, in determining whether a generator or market participant had made an offer, bid or rebid that was false, misleading or likely to mislead, a court must have regard to the market design principles as set out in clause 3.1.4(a)(2).

The Commission has determined to include additional wording in clause 3.1.4(a)(2) of the NER to elaborate on the market design principle of achieving a high degree of market transparency by including the provision of accurate, reliable and timely forecast information to market participants, in order to allow for responses that reflect underlying conditions of supply and demand.

4.4.2 Rebidding as soon as practicable

The Commission determined in its first draft rule to include a new obligation on a participant to rebid as soon as reasonably practicable after becoming aware of the change to the material conditions and circumstances on the basis of which it decided to vary its offer, or bid.

This provision was intended to encourage offers that remain reflective of a participant's true intentions at dispatch and which do not become misleading through a failure to rebid as soon as practicable.

This provision has been amended in the second draft rule to remove the word "reasonably". The Commission is of the opinion that the word "reasonably" is not necessary because "practicability" (unlike "possibility") requires an enquiry as to what could reasonably be done in the circumstances, and having regard to the resources available to the person required to comply with the obligation. Therefore there is no material difference between the time limit conveyed by the expressions "as soon as practicable" and "as soon as reasonably practicable".

In determining whether a rebid was made as soon as practicable, a court must have regard to:

1. the market design principles set out in clause 3.1.4(a)(2); and
2. the importance of rebids being made, where possible, in sufficient time to allow a reasonable opportunity for other market participants to respond prior to the commencement of the trading interval to which the rebid relates, or the commencement of any dispatch interval within that trading interval.¹⁴³

Clause 3.8.22A(e)(2) has been amended in the second draft rule to make it an aspirational statement similar to the market design principles. The Commission decided to amend this clause as a result of concerns raised by a number of generators in relation to the first draft rule that this clause would mean that they would have to consider the ability of their competitors to respond before they could rebid.¹⁴⁴¹⁴⁵

Clause 3.8.22A(e) sets out the factors that a court must give consideration to in determining whether a rebid is made as soon as practicable rather than creating an obligation on generators. However, some stakeholders submitted that a trader would still need to second guess what a court might consider to be as “as soon as practicable” which would include the opportunity for others to respond to a rebid.

Origin Energy queried why the ability for others to respond was singled out as something a court must have regard to when there are a range of factors that may be relevant to a consideration of whether a rebid was made as soon as practicable. The Commission notes that clause 3.8.22A(e)(2) sets up a mandatory relevant consideration for a court, and that therefore a court must at least turn its mind to whether the rebid was made so late as to deprive others of having a reasonable opportunity to respond. This does not mean that, if a rebid is made late and others are denied a reasonable opportunity to respond, then the rebidder will necessarily be found to have breached clause 3.8.22A(d). It is merely one of the factors that the court must weigh up in deciding whether a rebid was made “as soon as practicable”.

However, there does appear to be some confusion amongst generators that this clause creates a positive obligation on them. Therefore, the Commission has determined to amend clause 3.8.22A(e)(2) to clarify that the ability for others to respond is only an aspiration (similar to the market design principles).

The Commission intends that amending this clause in this way will retain the necessary statutory guidance to the court on the behaviour that cl 3.8.22A(d) is trying to address (i.e. deliberately delaying rebidding until other market participants cannot respond), while alleviating generator concerns that there is a positive obligation on them to consider the ability of competitors to respond before they can rebid. By itself, the inability of other participants to respond will be neither a necessary nor a sufficient condition to prove breach of the obligation to rebid as soon as practicable. If it is shown that a rebid was made as soon as practicable, the question of whether other participants had an opportunity to respond will be moot. This question will only arise for rebids that

¹⁴³ Clause 3.8.22A(e) of the NER.

¹⁴⁴ See **Appendix H** for submissions on the draft determination by: EnergyAustralia, p. 4; Snowy Hydro, p. 2; GDF, p. 4; ESAA, p. 2; Delta Energy, p. 3; Stanwell, p. 14; CS Energy, p. 20; Origin, p. 4.

¹⁴⁵ In the first draft rule, clause 3.8.22A(e)(2) provided that in any proceedings alleging a breach of clause 3.8.22A(d), a court must have regard to whether rebids were made in sufficient time to allow reasonable opportunity for other market participants to respond.

fall under scrutiny due to other indications that they may have been deliberately delayed.

4.5 Reasons for the Commission's changes to the good faith provisions

This section sets out the Commission's reasons for the changes to the good faith provisions in the second draft rule.

4.5.1 False or misleading bidding

The Commission's principal concern with the existing good faith provisions is that the assessment of whether an offer or rebid is made in good faith is only based on the generator's intentions at the time the offer or rebid is submitted. A generator may have a genuine intention to honour its initial offer and equally may have a genuine intention to honour its subsequent rebid. As long as there is a genuine intention to honour the offer or rebid at the time it is made, the obligations of the good faith provisions are satisfied.

As such, the good faith provisions prohibit generators submitting offers which they do not intend to honour under any circumstances or are incapable of complying with if dispatched. However, the provisions do not prohibit generators submitting an offer, in the knowledge that it may be honoured, but then subsequently changing its intentions for dispatch without reflecting those intentions in a rebid as soon as is practicable. The Commission considers that it is the potential inability of the existing good faith provisions to address this latter behaviour that provides the case for making a change to the provisions.

In order to address this behaviour, the Commission's second draft rule deems the making of an offer, bid or rebid to be a representation to other participants through the pre-dispatch schedules published by AEMO that the offer, bid or rebid will not be changed unless the generator or market participant became aware of a change in the material conditions and circumstances upon which the offer, bid or rebid is based. If a generator were to change its intentions for dispatch, and decided to make a rebid to reflect its changed intention, then its existing offer (and its representation to the market) would become misleading until it actually made such a rebid.

By treating a generator's offer as a representation to other market participants, the rules would address instances where the generator made an offer or rebid that it would or could not honour, as well as instances where it had a genuine intention to honour its offer or rebid but then subsequently changed its intentions and decided to make a rebid but did not do so as soon as practicable.

The Commission considers that the changes to the good faith provisions set out in the second draft rule should provide greater certainty to market participants in relation to appropriate market conduct and bidding behaviour, thereby increasing transparency and providing greater operational and investment certainty to market participants. This should lead to efficient price signals for investment and enhance the security and reliability of the electricity system in the long-term interests of consumers of electricity.

The Commission does not consider that the South Australian Government's proposed rule to recast the provisions in the negative would be effective in addressing this behaviour. Starting from the position that rebids are not made in good faith would place the participant in a position where they would be required to demonstrate what their intentions were at the time of making the rebid. While a late rebid may be used to imply that a previous offer or rebid was not made in good faith, the mere fact of submitting a rebid would not be definitive proof of a lack of good faith.

The requirement to demonstrate that a late rebid was made in good faith would provide little assistance to the AER in establishing that the market participant acted improperly with respect to its previous offer or rebid. The generator may in fact have had a genuine intention to honour its previous offer or rebid at the time it was made. This would not address the case where the generator subsequently changed its intentions and deliberately delayed making a rebid until close to dispatch in order to exploit the limited opportunity of other participants to respond.

Further, recasting the good faith provisions in the negative would mean that a generator had made an offer or rebid in bad faith unless the generator could demonstrate that it had a genuine intention to honour the offer if the material circumstances upon which the offer or rebid was made remained unchanged until the relevant dispatch interval. This would place a substantial regulatory burden on the market. It also raises the possibility that a generator may be found to have breached the bidding in good faith provisions simply because it failed to provide satisfactory records, despite the fact that it may actually have had a genuine intention to honour its offer.

4.5.2 A reasonable basis for the representation to be made

Under the existing provisions, the submission of a late rebid by a generator may be used to imply that the generator did not have a genuine intention to honour its previous offer or rebid at the time it was made. However, the submission of the late rebid is not definitive proof in itself of a lack of genuine intention. The generator may have had a genuine intention of honouring its previous offer or rebid at the time it was made but then subsequently changed its intention sometime before making the late rebid.

This of course can be equally applied to any consideration of whether an offer, bid or rebid is false, misleading or likely to mislead. A late rebid in itself does not prove that a generator did not have a genuine intention to honour its previous offer, bid or rebid, or even that it subsequently changed its intentions but then delayed in making a rebid.

As such, the Commission's second draft rule also provides that an offer, bid or rebid will be taken to be false or misleading if the generator does not have a reasonable basis to make the representations that have been made to other market participants, through the pre-dispatch schedules provided by AEMO, that the generator will not change its offer unless it becomes aware of a change in the material conditions and circumstances upon which the offer was based. This is analogous to the treatment of statements of future matters under section 4(1) of the Australian Consumer Law (ACL) where a representor's statement as to its own future actions is taken to have been made upon reasonable grounds if, at the time of making the statement, the representor intended to, and objectively had the capacity to, perform the future act.

In support of this change, the Commission's second draft rule would include additional wording in the market design principles set out in chapter 3 of the NER to amend clause 3.1.4(a)(2) to elaborate on the objectives of providing accurate, reliable and timely forecast information to market participants in order to allow for responses that reflect underlying conditions of supply and demand. Additional wording has also been included in clause 3.8.22A to provide that the false or misleading character of the offer, bid or rebid could be ascertained by inference from the knowledge, belief, intention, or conduct of the generator or any other person, including patterns of conduct.

A finding of breach could therefore be made by a court after considering all the evidence before it even if that breach was ascertainable only by reference to a pattern of conduct by the relevant generator. This is particularly relevant in the case where a generator has a pattern of behaviour of deliberately delaying making rebids until close to dispatch. While it may be difficult to prove in any individual instance that the generator deliberately delayed in making its rebid, a repeated pattern over time of submitting offers or rebids that were then amended by way of subsequent late rebids could suggest that the generator did not have a reasonable basis to make the representations that it made to the market by way of its initial offers.

In determining whether a generator had made offers or rebids that were false, misleading or likely to mislead, the Commission's second draft rule would also allow for an inference to be drawn from other offers, bids and rebids made by the generator. This is similar to an element of the South Australian Government's proposed rule that would allow the AER to assess the intention of a participant by having regard to all of the offers, bids and rebids that the participant has substantial control over.

4.5.3 Rebidding as soon as practicable

Late rebids are not in themselves misleading as to a generator's intentions. However, it could be suggested that the generator's previous offers or rebids could become misleading during the interval between the generator's change of intention for dispatch and its late rebid. However, this would not be definitive. A generator, in making a late rebid, may have changed its intention within a reasonable timeframe of submitting its late rebid.

If a generator were to change its intentions regarding supply, and decided to submit a rebid to reflect its changed intentions, then its earlier offer could become misleading if other participants were reasonably entitled to expect to be notified of any change in intentions. As such, the Commission has determined to include an additional amendment to the NER to require a generator or market participant to make a rebid as soon as practicable after it becomes aware of the change in material conditions and circumstances that provides the basis for its decision to rebid.

A requirement for participants to rebid as soon as practicable following the generator or market participant becoming aware of the changes in material circumstances on the basis of which it decides to vary its bid or offer should provide for more accurate, reliable and timely information being provided to other participants. Responses that are in line with the underlying conditions of supply and demand should lead to more efficient wholesale price outcomes in the short term and create efficient signals for investment in supply and demand over the longer term.

As part of its rule change request, the South Australian Government raised a similar concern regarding instances when generators have failed to make a rebid within a reasonable period of the generator becoming aware of the change in material conditions and circumstances. The South Australian Government proposed that generators should be required to take into account all existing material conditions and circumstances when making a bid and, if there is a change to any of those material conditions and circumstances, to reflect those changes in rebids as soon as practicable.¹⁴⁶

The Commission acknowledges the concerns raised by stakeholders with regard to how a change in conditions and circumstances would relate to the timing of rebids. Indeed, the Commission has previously raised concerns with regard to this aspect of the proposed rule, and has noted that a principal issue with this approach is that market participants may perceive different periods of time as reasonable. However, the Commission recognises the point made by the South Australian Government that further clarity on this should develop with consideration and feedback from participants and the AER, and that it is ultimately a matter for the court to determine whether or not the time taken to make a rebid was reasonable.

In order to assist in the determination of whether a generator had made a rebid as soon as practicable after becoming aware of a change in material conditions and circumstances on the basis of which it decides to vary its offer or bid, the Commission has determined to include additional wording in clause 3.8.22A of the NER to provide that a court must take into account certain additional considerations when considering whether a rebid was made as soon as practicable. These considerations include the market design principle in clause 3.1.4(a)(2) of the NER as well as the importance of rebids being made, where possible, in sufficient time to allow a reasonable opportunity for other market participants to provide a response, either through a responsive rebid, or to bring generating units into operation or adjusting loading levels.

4.6 Application of the second draft rule

As with the existing good faith provisions, the Commission will recommend to the Council of Australian Governments (COAG) that the amended behavioural statement of conduct in clause 3.8.22A would continue to be a rebidding civil penalty provision and, therefore, a breach of either clause 3.8.22A(a) or 3.8.22A(d) would attract a maximum civil penalty of \$1 million.

The Commission notes the extent to which the behavioural statement is enforceable and effective in deterring adverse behaviour will be determined largely by a court's interpretation of the participant's actions. In determining the appropriate amount of any civil penalty for a breach of clause 3.8.22A, the court is required to have regard to "all relevant matters", which include:¹⁴⁷

- the nature and extent of the breach;
- the nature and extent of any loss or damage suffered as a result of the breach;

¹⁴⁶ South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013, pp. 10-14.

¹⁴⁷ See section 64 of the NEL.

- the circumstances in which the breach took place;
- whether the participant has been found to be in breach of the NEL or the NER in respect of any similar conduct; and
- whether the participant had in place a compliance program approved by the AER and, if so, whether it had been complying with that program.

In determining the appropriate amount for a breach of clause 3.8.22A, a court would be likely to consider where the participant in breach did not intend to mislead other participants but did so through error, or any consequential impacts of the breach, such as any windfall gains made by the participant or losses incurred by other parties through financial trading activities.

5 Contemporaneous recording of information for rebids made close to dispatch

This chapter sets out the obligation created under the second draft rule on participants to make and keep a contemporaneous record of all rebids made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies (“the late rebidding period”).

The Commission’s reasons for the second draft rule are discussed in the context of the additional information requirements that were proposed as part of the rule change request, and the submissions received to the Commission’s first draft rule which had proposed an obligation on participants to report to the AER on all rebids made during the late rebidding period.

5.1 South Australian Government's rule change request and first draft rule

Under the original rule change request proposed by the South Australian Government, participants would be required to provide the AER with accurate and complete data and information on request to substantiate compliance with the rule. This requirement was to apply to all offers, bids and rebids.

Under the first draft rule, more detailed reports were required to be provided to the AER for all rebids made within the late rebidding period, that is, the final 15 minutes before commencement of the trading interval to which the rebid applied. Those late rebid reports would require the generator to identify the change in material conditions and circumstances giving rise to the rebid, recognising that a market expectation which did not eventuate may be a change in material conditions and circumstances.

The requirement to submit the late rebid report would have been an obligation under the NER. The specific content and format of the report would have been determined and specified by the AER in its Rebidding and Technical Parameters Guideline. The Commission considered that the requirement to submit a detailed report for each rebid made close to dispatch was likely to reduce the incentive for generators to submit speculative late rebids, which should promote more efficient market outcomes in the long term interests of consumers.

5.2 Additional regulation of late rebidding

The Commission considers that there is a need for additional regulation on rebids that occur close to dispatch to address the higher propensity for rebids to result in inefficient market outcomes at these times. The determination of an appropriate form of regulation to address this issue requires a consideration of the trade-off between:

- 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.

Additional regulation of rebids and the window of time over which this regulation applies are factors that determine the compromise between these two competing drivers of market efficiency.

Of course, imposing additional regulations on rebids close to dispatch can have the effect of merely shifting the relevant rebidding activity forward in time. Depending on the level of regulations imposed, the deadline for making rebids may be effectively shifted to an earlier time, which would not solve the inability of generators to rebid in response to a late rebid.

However, the ability of generators to 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 additional regulation on rebids close to dispatch 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 additional regulations would apply, this would provide time for:

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

As discussed in section 3.1.2, it is the inability of certain participants to physically respond in time that drives most of the impacts of late rebidding. By providing for the above forms of physical response, additional regulations on rebids made close to dispatch would reduce the incentives on generators to make a late rebid that was intended to exploit the limited responsiveness of competitors.

In addition, depending on the exact design of the additional regulation, the ability of generators to undertake late rebids that specifically target dispatch intervals towards the beginning and end of trading intervals would be diminished. As discussed in section 3.1.2, due to the settlement price being determined over the half-hour trading interval, rebids that increase the dispatch interval price towards the beginning of a trading interval may mean that supply or demand responses occur later in the trading interval when the market no longer signals a need. Further, rebids that increase the dispatch interval price towards the end of a trading interval may mean that demand-side participants are unable to determine purchasing costs until well after consumption has occurred.

The Commission therefore considers there would be benefit in increasing the recording requirements on generators for rebids made within the late rebidding period. This would also have the benefit of providing the AER with additional information on the reasons for and the timing of late rebids.

A window of time prior to dispatch would still apply, but any rebids made that apply to dispatch intervals within this period of time would require a contemporaneous record to be kept in relation to the rebid. No additional regulation would be placed on rebids made prior to the late rebidding period, reflecting the higher probability of rebids made at these times leading to efficient market outcomes.

5.3 Stakeholder submissions

Restricting rebids close to dispatch

A number of stakeholders opposed any restrictions on rebidding close to dispatch.¹⁴⁸ Snowy Hydro suggested that restrictions on rebidding close to dispatch would impede efficiency as all information would not be taken into account up until the time of dispatch.¹⁴⁹ This view was supported by AGL who considered that market offers would be perpetually 'out-of-date' by the length of the prevailing period of restrictions and not reflective of underlying market conditions.¹⁵⁰ Origin Energy considered that such an outcome would be likely to have a greater distortionary effect on the market overall compared to any issues associated with late rebidding.¹⁵¹

However, this view was not shared by EnerNOC who considered that the impact of rebidding restrictions on different physical dispatch outcomes is more important than participant's offers being based on out-of-date assessments of market conditions.¹⁵² EnerNOC suggested that the main effect of rebidding restrictions is to increase the predictability and transparency of prices. Price changes should only result from changes in the balance of supply and demand, which are easier to predict than the effects of generator bidding behaviour. While participants will have to look further into the future when attempting to anticipate market outcomes, their price forecasts should be significantly more reliable.

Support for rebidding restrictions was contained in submissions from several other stakeholders.¹⁵³ However, there were some differences in opinion with respect to the level of these restrictions. ERM Power suggested that restrictions should target the types of rebids that are the cause of longer term customer harm. The vast majority of rebids do not fall into this category and so should be allowed if the market is to be efficient and flexible.¹⁵⁴

A number of stakeholders suggested that the window of time over which the restrictions apply would be critical in determining the level of effectiveness, and that the time period should be based on the length of time required for an efficient demand response.¹⁵⁵

The MEU considered that demand responses take time to implement and can be difficult to reverse, and so the restrictions should span longer than a single trading

148 See submissions on the options paper from: Snowy Hydro, p. 6; AGL, p. 5; Alinta Energy, p. 3; ESAA, p. 3; Origin Energy, p. 4; EnergyAustralia, p. 4; GDF Suez, p. 7; Stanwell, p. 9.

149 Snowy Hydro, submission on the options paper, p. 6.

150 AGL, submission on the options paper, p. 5.

151 Origin Energy, submission on the options paper, p. 4.

152 EnerNOC, submission on the options paper, p. 5.

153 See submissions on the options paper from: SACOSS, p. 2; ERM Power, p. 7; EnerNOC, p. 6; Visy, p. 1; RWEST, p. 8; Q Energy, p. 8; MEU, p. 7; Arrium, p. 2; QGC, p. 2.

154 ERM Power, submission on the options paper, p. 7.

155 See submissions on the options paper from: SACOSS, p. 2; MEU, p. 6; Visy, p. 5; EnerNOC, p. 9; Arrium, p. 2.

interval.¹⁵⁶ This period of time was also supported by EnerNOC who considered it important that the period of restrictions is long enough to capture late rebids that target dispatch intervals towards both the beginning and end of trading intervals.¹⁵⁷

Visy considered that most large energy consuming manufacturers have the capability to safely and effectively respond within 10 to 30 minutes from the time of deciding to respond.¹⁵⁸ Visy suggested that a 30-minute period of restrictions would be an appropriate timeframe as it would not materially impact the information available prior to dispatch and would not be too generous so as to capture load shedding or generation which is not at the leading edge of responsiveness. Further, this would represent a shorter period of time than currently applies in comparative overseas jurisdictions. This length of time was also suggested by Arrium.¹⁵⁹

Reporting requirements

Several demand-side participants, as well as the South Australian Government and SACOSS, supported the proposed requirement in the first draft rule for generators to provide a report for all late rebids, considering that it would increase the AER's ability to scrutinise and challenge bids of concern.¹⁶⁰ While not in support of imposing restrictions on rebids, AEMO considered there to be potential benefits from increasing the reporting requirements for rebids made close to dispatch.¹⁶¹ However, the MEU suggested that, due to the large number of reports that may eventuate, it may be preferable to provide the AER with the discretion to request reports from generators rather than an automatic requirement.¹⁶² ERM suggested an amendment to allow an exemption for rebids caused by plant-related issues.¹⁶³

The South Australian Government noted that the reporting process should not be overly burdensome for generators with a definite need to make a late rebid.¹⁶⁴ Visy argued that the process was unlikely to be heavily burdensome as rebid reasons are already required under the current NER and the AER has powers to interrogate generator records, which many participants already keep. There could also be exemptions for certain types of rebids. However, Visy also questioned the effectiveness of a reporting-only requirement as a disincentive against deliberate late rebidding, given that they believe it does not impose substantial new obligations on generators.¹⁶⁵

Generators were almost unanimously opposed to the proposed reporting obligations, arguing that they would impose an excessive compliance burden that would limit their

¹⁵⁶ MEU, submission on the options paper, p. 6.

¹⁵⁷ EnerNOC, submission on the options paper, p. 9.

¹⁵⁸ Visy, submission on the options paper, p. 5.

¹⁵⁹ Arrium, submission on the options paper, p. 2.

¹⁶⁰ See submissions on the draft determination from: RWE, p. 4; MEU, p. 13; ERM, pp. 1-2; SACOSS, p. 2.

¹⁶¹ AEMO, submission on the options paper, p. 5.

¹⁶² MEU, submission on the options paper, pp. 4-5.

¹⁶³ ERM, submission on the draft determination, pp. 1-2

¹⁶⁴ SA Government, submission on the draft determination, p. 2.

¹⁶⁵ Visy, submission on the draft determination, pp. 7-8.

ability to respond to changing market conditions, and disincentivise efficiency enhancing rebids.¹⁶⁶ Arrow Energy argued that peaking plant would be disproportionately burdened as it is inherently reactive to short term conditions.¹⁶⁷ Generators argued that the AER's existing information gathering powers were adequate, and that allowing the AER to specify the content and format of the report gave the AER too much discretion.¹⁶⁸

The AER opposed the proposed reporting obligations on grounds that they would create a heavy regulatory burden for the AER and participants. As an alternative, the AER proposed a requirement for participants to keep contemporaneous records of certain information pertaining to late rebids, which would be provided to the AER on request.¹⁶⁹ AGL also proposed a requirement to record information for each rebid, stating that the compliance cost of this approach would be lower than the cost of the reporting obligations described in the draft rule.¹⁷⁰

Provision of complete and accurate information

The AER agreed with the South Australian Government's proposal that participants should be required to provide accurate and complete data and information on request to substantiate compliance.¹⁷¹ The AER considered that participants should already be keeping complete records of the reasons for submitting rebids to ensure they comply with the current requirements of the good faith provisions.

However, this view was not shared by several stakeholders who suggested that keeping complete information and data for all rebids would be a significant compliance burden as generators would only have one opportunity to submit all relevant information to the AER, which may subsequently be required to stand up to judicial scrutiny.¹⁷² These stakeholders suggested that complying with these requirements could mean that generators adopt more conservative strategies to minimise rebidding, which could result in sub-optimal spot market outcomes.¹⁷³

GDF Suez suggested that any changes to the requirements for information provision to the AER should be separate to and distinct from the good faith bidding provisions.¹⁷⁴ The provision of complete information should not fall under the same high civil penalty.

¹⁶⁶ See submissions on the draft determination from: Stanwell, p. 1; Alinta, p. 4; CS Energy, p. 22; GDF, p. 4; ESAA, p. 3; EnergyAustralia, p. 2; Infigen Energy, pp. 1-2; Snowy Hydro, p. 2; Origin Energy, p. 2; Delta Energy, p. 2; AGL, p. 3

¹⁶⁷ Arrow Energy, submission on the draft determination, p. 2.

¹⁶⁸ See submissions on the draft determination from: Delta Energy, p. 3; Stanwell, p. 1.

¹⁶⁹ AER, submission on the draft determination, p. 3.

¹⁷⁰ AGL, submission on the draft determination, p. 3.

¹⁷¹ AER, submission on the consultation paper, p. 12.

¹⁷² See submissions on the consultation paper from: InterGen, pp. 2-3; Origin Energy, pp. 6-7; NGF, p. 4; EnergyAustralia, pp. 3-4; Arrow Energy, p. 4.

¹⁷³ See submissions on the consultation paper from: Origin Energy, pp. 6-7; EnergyAustralia, pp. 3-4; InterGen, pp. 2-3.

¹⁷⁴ GDF Suez, submission on the consultation paper, pp. 3-4.

5.4 The second draft rule

This section sets out the Commission's proposed changes to the recording of information requirements for rebids made close to dispatch. A discussion on the reasons for the proposed changes is provided, including the reasons for not making the proposed rule, and for making changes to the first draft rule which had required that reports would be sent to the AER for all rebids made during the late rebidding period.

5.4.1 Overview of the contemporaneous record keeping requirements

The Commission's second draft rule requires that, for each rebid made within the late rebidding period (which in respect of a trading interval is the period beginning 15 minutes before the commencement of the trading interval) a rebidding generator or market participant must make a contemporaneous record in relation to the rebid which must include a record of:

1. the material conditions and circumstances giving rise to the rebid;
2. the generator or market participant's reasons for making the rebid;
3. the time at which the relevant event(s) or other occurrence(s) occurred; and
4. the time at which the generator or market participant first became aware of the relevant event(s) or other occurrence(s).

The Commission will recommend to the COAG Energy Council that this provision be a civil penalty provision.

The contemporaneous records would be required to be kept for seven years under clause 1.9 of the NER.

The AER will be able to request the contemporaneous records using its existing powers under clause 3.8.22, although the rules will be amended to specifically refer to the AER's ability to request any contemporaneous records made in relation to rebids made during the late rebidding period.

Differences between the first and second draft rules

The requirement to provide late rebid reports to the AER in the first draft rule raised concern amongst a number of stakeholders, including generators and the AER. A number of generators submitted that the requirement to produce late rebid reports was not well targeted to deliberate late rebidding and would create a significant administrative burden, which would effectively act as a brake on all late rebids, including efficiency enhancing late rebids.

The AER also had a number of concerns about the late rebidding reporting requirement, and claimed that it would impose a heavy regulatory burden on market participants and the AER. The AER claimed that the requirement for late rebid reports would also be likely to place an unrealistic expectation on the AER given the high volume of information received. The AER proposed that the reporting requirement be replaced with a positive obligation on generators to keep contemporaneous records of late rebids. This would give the AER better access to contemporaneous information in order to monitor, investigate and prosecute potential breaches of rules 3.8.22A(a) and (d).

The Commission agrees with this approach and has determined to replace the reporting requirements in the second draft rule with an obligation on generators and market participants who make rebids during the late rebidding period to keep contemporaneous records of those rebids. The information required in these records is set out in the second draft rule. The Commission notes that this option would place an extra administrative burden on all market participants who rebid within the late rebidding period; however, this may be less onerous than reporting to the AER on all late rebids. In addition, the changes to the behavioural statement of conduct and the requirement to rebid as soon as practicable, may lead a participant to keep more detailed records in any case, to prove that it had complied with these new rules.

The NER will not prohibit any specific rebids. This will avoid any potential issues with stronger forms of rebidding restrictions, which may limit the ability of generators to manage short term plant operations, such as start-up and shut-down procedures.

5.4.2 Response to submissions and reasons for the Commission's changes

A contemporaneous record

The Commission considers that if a generator wishes to submit a rebid during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies, it should be required to justify the reasons for submitting the rebid at that time. A contemporaneous record setting out the material conditions and circumstances giving rise to the rebid, the generator's reasons for making the rebid, the time at which the relevant event occurred, and the time at which the generator first became aware of the event would provide the AER with a greater ability to assess whether the generator made the rebid as soon as practicable, or whether the generator deliberately delayed in making its rebid in the knowledge that other participants would have limited time to respond.

Access to contemporaneous records for late rebids would also allow the AER to assess the extent to which a generator had engaged in a repeated pattern of deliberately delaying rebids until close to dispatch, and therefore whether there was a reasonable basis for that generator to represent to participants that it would honour any offer it made.

The Commission recognises that the format and content of the contemporaneous records will need to be sufficiently flexible to accommodate the vast array of potential changes in conditions and circumstances. A generator may identify a number of related events which taken together represent a material change in conditions and circumstances. The generator may not consider it appropriate to respond to a single change in material conditions and circumstances and may only consider it necessary to change its bidding strategy on the basis of a combination of events or once a threshold level for a specific market parameter has been reached. This may require a number of events to occur such as changes in demand, reductions in plant availability, network limitations, etc, all of which may be small or immaterial but sufficient on aggregate for the generator to significantly change their bidding strategy.

The Commission anticipates that the record would be sufficiently comprehensive such that the generator would be able to detail the changes that took place and how a

combination of changes influenced the generator's intentions for dispatch, including where the expectation of a change in market conditions did not eventuate. Alternatively, if the reasons are relatively straightforward then the record may be less extensive.

For example, a contemporaneous record might constitute a record in a trader's log summarising the changes in conditions that led to the making of a rebid, and the time at which the trader became aware of the changes. The rebid reason and rebid time will already be available from AEMO's systems under the current requirements to provide rebid reasons¹⁷⁵, although the log may also record a more detailed rebid reason than is provided to AEMO. This example is provided for guidance only. Under the second draft rule, participants are free to devise their own forms and methods for making the contemporaneous record, so long as the required information is preserved and available on request by the AER.

A key difference between the obligation to preserve a record under the second draft rule, and the reporting obligation under the first draft rule, is that under the recording requirement, there would be no explicit obligation to collate all the relevant information. For example, if the material change in conditions and circumstances consisted of information from multiple sources, it may be sufficient to record the location of these sources and what broadly was happening at the time, without extracting and presenting the information in a single document. The Commission considers this should significantly reduce IT-related compliance costs, compared to the reporting obligation proposed in the first draft rule.

South Australian Government's rule change proposal

The Commission acknowledges the concerns raised by a number of market participants in relation to the provision of complete and accurate information to the AER on the reasons for offers, bids and rebids as proposed in the South Australian Government's rule change proposal. The Commission considers that one opportunity¹⁷⁶ to provide all relevant information to the AER which may subsequently be put to judicial scrutiny is likely to impose a significant burden on market participants, which may lead to more conservative bidding and inhibit the discovery of efficient price outcomes. The Commission agrees with stakeholders that such a requirement may be overly restrictive on generators, particularly if the obligation is applied at all times.

Further, the Commission is concerned that the additional information requirement in the South Australian Government's proposed rule could be breached if a participant failed to provide either accurate data or complete data to the AER upon request. A breach of this rule is proposed to be a rebidding civil penalty. The Commission considers that this would impose a significant regulatory obligation on participants, particularly given the level of potential penalty involved. The Commission recognises that the requirement to keep contemporaneous records as set out in the second draft

¹⁷⁵ See Clause 3.8.22(c)(2) of current rules.

¹⁷⁶ Under the South Australian government's proposed rule, generators would have to provide accurate and complete information to the AER on request to substantiate the bid. This information could be used to prove a breach of the rules and the generator would not be able to adduce any different information in court to that provided to the AER without breaching the rules.

rule will also impose a burden of compliance on market participants and that this may lead to more conservative bidding strategies. However, the Commission sees benefits in the AER being able to have access to the additional information which would be contained in the contemporaneous records, specifically for rebids that occur close to dispatch, which have a disproportionately higher probability of resulting in inefficient market outcomes.

Gate closure

The Commission previously considered the option of introducing a gate closure mechanism for managing the problem of deliberate late rebidding, and concluded that it was a disproportionate response that would involve fundamental changes to the design of the wholesale market. Such changes could have unintended consequences, including on the ability of participants to make efficiency-enhancing late rebids. It was also not sufficiently demonstrated that the potential costs associated with restricting efficient rebids close to dispatch would be outweighed by the benefits of preventing generators submitting deliberate late rebids.

The introduction of a gate closure mechanism to the NEM would involve a compromise between two competing forms of market efficiencies. On one hand, it would limit the potential for price outcomes to be disproportionately influenced through late rebids that inhibit an efficient response from other participants while, on the other, it would restrict the flexibility for the market to reach efficient outcomes that reflect changing market conditions. The point at which this compromise is drawn depends on the level of restrictions that are placed on rebids and the window of time prior to dispatch to which these restrictions would apply.

With a gate closure, end users would be less exposed to high prices caused by late rebids towards the end of trading intervals for energy already consumed over the half hour. The prevention of late rebids might also mean that peaking generators would have time to start-up and generate to acquire market revenue, allowing them to meet their payment obligations under cap contracts. This could act to increase competition in the contract market, lowering prices to consumers and resulting in more efficient investment.

However, in designing a gate closure mechanism consideration must also be given to the potential impacts on individual participants from restricted rebidding. Rebidding is a tool that participants use to manage their risks of participating in the market. For example, rebidding may be used by a generator to manage an unplanned outage. If a unit trips and is offline, the generator may rebid its remaining capacity into lower price bands to dispatch greater output from its remaining units, and thus cover any contractual obligations.

In particular, rebidding can be used by generators to manage congestion-related dispatch risk. A generator constrained-off due to congestion may be unable to make a rebid in response to another generator's late rebid, which may have created a high price in pre-dispatch. Alternatively, a generator may anticipate being constrained off due to congestion and may rebid to the market floor price prior to gate closure, only to find itself exposed to a negative market price.

Consequently, a market that prevents participants from adequately managing their risks may restrict efficient investment and undermine the long-term efficient operation of the market in the interests of consumers. The design of gate closure mechanism would therefore involve a consideration of the ability of different participants to manage their differing risks from participating in the market.

Finding an appropriate balance is particularly important in the NEM, as a result of its relatively high market price cap. CEG noted that the market price cap is substantially lower in the majority of overseas jurisdictions surveyed. A low market price cap can significantly reduce the incentives on generators to engage in late bidding behaviour, as well as reducing the impacts of any mechanisms that restrict the flexibility of participants. However, this comes at the expense of the efficient long-term operation of the market by blunting the signals for efficient investment, which the Commission considers to be of over-riding importance in the context of the NEM.¹⁷⁷

Opposing views have been raised by stakeholders with respect to the effectiveness of restricting rebids close to dispatch. For example, Visy has proposed a prohibition on rebids during the final 30 minutes before dispatch with the following exceptions:

- physical and safety reasons;
- unplanned/forced outage due only to technical fault or safety and environment;
or
- volume bid within a higher price band revised to a lower price band.

Visy argues that a gate closure model would provide time for fast-start generation and demand response, enabling more participants to respond to market conditions and thereby resulting in a more competitive market. Furthermore, Visy states that the NEM is somewhat unique in having no gate closure for bids, and that other jurisdictions show no evidence of impaired efficiency as a consequence of gate closure.¹⁷⁸

The Commission considers that while such an approach would inhibit the ability of participants to submit deliberate late rebids, it would also inevitably limit rebids close to dispatch which have the potential to result in more efficient market outcomes – even with the suggestions made by Visy that would seek to allow efficiency-enhancing rebids.

For instance, it may be efficiency-enhancing for generators to move volumes into higher price bands where doing so signals the value of scarce generation at a moment in time, which may relate to dynamic system conditions that only become apparent during the late rebidding period. A repetition of such moments over time could signal the value of new investment – in generation, transmission and demand-side response. The importance of the wholesale market in providing long-term investment signals may come at the cost of some short-term movements of price away from generators' operating costs.

¹⁷⁷ The Competition Economists Group, *International review of rebidding activity and regulation*, December 2014, p. 5.

¹⁷⁸ Visy, submission on the options paper, pp. 11-17.

There may also be late rebids that are related to physical reasons that are not efficiency-enhancing because the information (in the form of a rebid) has been withheld until such time as others do not have a chance to respond.

Given the difficulties associated with defining an objective set of efficiency-enhancing rebids, the Commission does not support imposing restrictions on rebids made close to dispatch at this time.

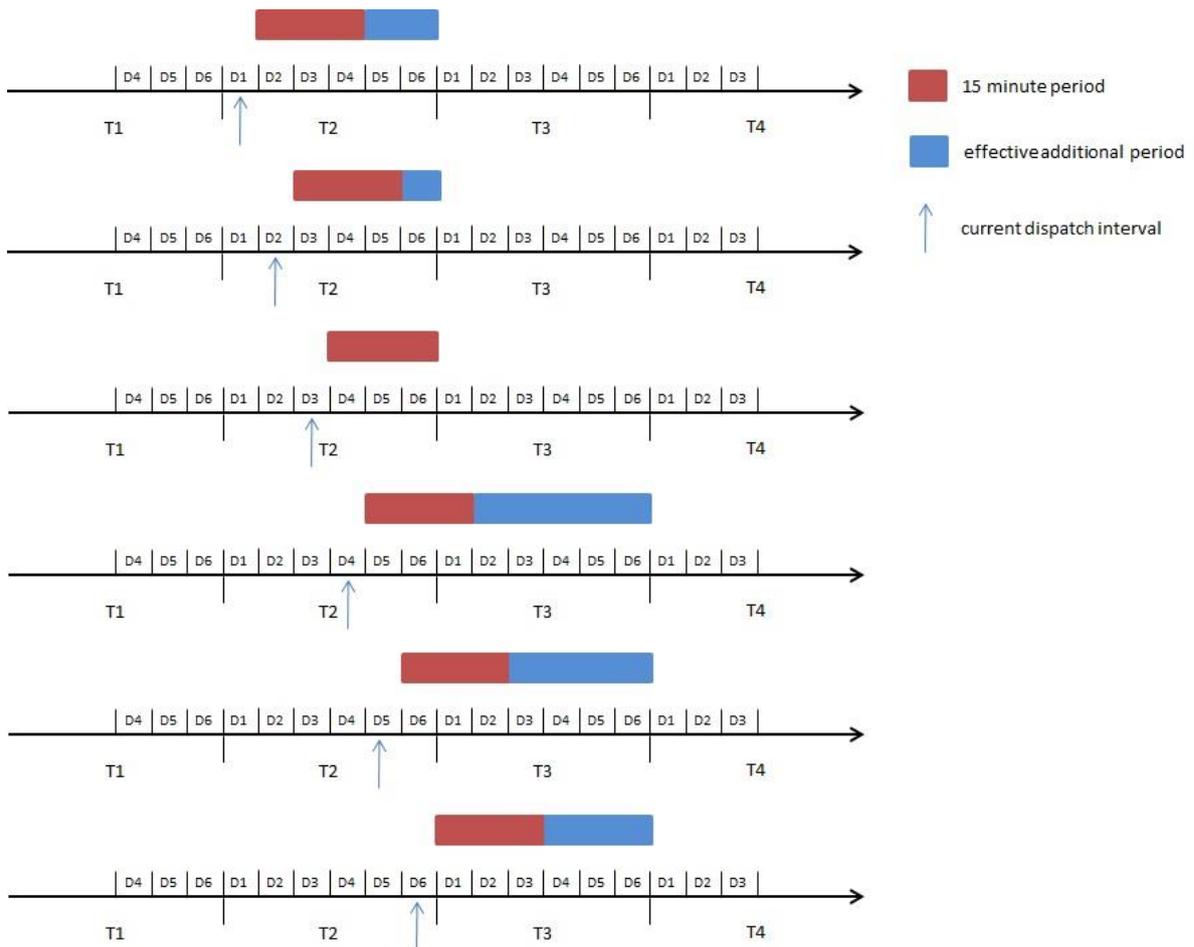
However, the Commission considers that generators should be required to rebid as soon as practicable upon becoming aware of a change in the material conditions and circumstances on the basis of which they decide to rebid. It is not in the long term interests of consumers for generators to deliberately delay in making rebids in the knowledge that other participants will have insufficient time to undertake a competitive response.

5.5 Application of the second draft rule

As discussed in section 5.2.1, the new requirement to keep contemporaneous records would be an obligation in the NER. A record would be required to be prepared by the generator for each rebid that is submitted during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies. The Commission proposes that a civil penalty would apply to a breach of the requirement to make and keep a contemporaneous record.

Figure 5.1 shows how the timing of the record keeping obligation would apply in practice. In each line, the blue arrow identifies the current dispatch interval and the red bar covers the 15-minute period to which the record keeping obligation would apply. Generators' offers apply to 30-minute trading intervals rather than individual 5-minute dispatch intervals. As such, wherever the red bar applies to any dispatch interval within the trading interval, the record keeping obligation effectively applies to the entire trading interval. This additional period is represented by the blue bar and applies an effective record keeping period that varies between 15 minutes and 40 minutes depending on the dispatch interval in which the rebid is submitted.

Figure 5.1 Timing of the record keeping obligation



A benefit of this approach is that it would not require a major change to AEMO's systems. AEMO would notify the AER in each instance where a rebid was made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies.

The second draft rule specifies that the record must include:

1. the material conditions and circumstances giving rise to the rebid;
2. the generator's or market participant's reasons for making the rebid;
3. the time at which the relevant event(s) or other occurrence(s) occurred; and
4. the time at which the generator or market participant first became aware of the relevant event(s) or other occurrence(s).

Abbreviations

ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
AEMC or Commission	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CCA	Competition and Consumer Act 2010
COAG	Council of Australian Governments
ESAA	Energy Supply Association of Australia
MCE	Ministerial Council on Energy
MEU	Major Energy Users
MPC	Market Price Cap
NECA	National Electricity Code Administrator
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NEO	National Electricity Objective
NER	National Electricity Rules
NGF	National Generators Forum
QGC	Queensland Gas Company
RWEST	RWE Supply and Trading
SACOSS	South Australian Council of Social Service

A Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the National Electricity Law (NEL) for the AEMC in making this draft rule determination.

A.1 Draft determination

In accordance with sections 99 and 102A of the NEL the Commission has made this draft rule determination in relation to the rule proposed by the South Australian Minister for Mineral Resources and Energy.

A.2 Power to make the rule

The Commission is satisfied that the Proposed Rule falls within the subject matter about which the Commission may make Rules. The Proposed Rule falls within section 34 of the NEL as it relates to the operation of the NEM (section 34(1)(a)(i)), the operation of the national electricity system for the purposes of the safety, security and reliability of that system (section 34(1)(a)(ii)), and the activities of persons (including Registered participants) participating in the NEM or involved in the operation of the national electricity system (section 34(1)(a)(iii)).

A.3 Commission's considerations

In assessing the rule change request the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;
- the fact that there is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles;¹⁷⁹
- submissions received during first, second and third round consultation, and at the public forum held on 18 March 2015; and
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

A.4 Power to make a more preferable rule

Under section 91A of the NEL the Commission may make a rule that is different (including materially different) from a market initiated proposed rule if the Commission is satisfied that, having regard to the issues or issues that were raised by the market initiated proposed rule, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

¹⁷⁹ Under section 33 of the NEL, the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

As discussed in Chapter 2, the Commission has determined to make a second draft rule which is a more preferable draft rule. The reasons for the Commission's decision are set out in Chapters 4 and 5.

A.5 Civil penalty provision

The Commission's second draft rule amends clause 3.8.22 of the NER. Clauses 3.8.22(c)(1)-(3) are currently classified as civil penalty provisions under clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations (Regulations). The second draft rule amends clause 3.8.22(c)(3) and introduces new clause 3.8.22(ca).

If the Commission makes a final rule in the form of the draft rule, it will be recommending to the COAG Energy Council that clauses 3.8.22(c)(1)-(3) continue to be classified as civil penalty provisions in the Regulations and that clause 3.8.22(ca) be classified as a civil penalty provision. This is because this will encourage relevant parties to comply with these provisions.

The Commission's second draft rule also amends clause 3.8.22A of the NER. This clause is currently classified as a rebidding civil penalty provision under clause 6(2) of the National Electricity (South Australia) Regulations (Regulations). The second draft rule introduces clause 3.8.22A(d). If the Commission makes a final rule in the form of the second draft rule, the Commission will be recommending to the COAG Energy Council that amended clause 3.8.22A (including clause 3.8.22A(d)) continue to be classified as a rebidding civil penalty provision in the Regulations. The classification of clause 3.8.22A as a rebidding civil penalty provision reflects the significant financial gain that may result from a breach of this provision, and the material impact that a breach of this provision may have on the operation and integrity of the NEM. It will also encourage relevant parties to comply with this provision.

A.6 Others

Under section 91(8) of the NEL, the Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of AEMO's declared network functions.¹⁸⁰ The more preferable draft rule is compatible with AEMO's declared network functions because it does not affect AEMO's performance of those functions.

¹⁸⁰ AEMO's declared network functions are specified in section 50C of the NEL.

B The materiality of late rebidding in the NEM

The purpose of this appendix is to provide an assessment of the materiality in the NEM of the issues that have been raised drawing on the results of the analysis undertaken by ROAM Consulting, Oakley Greenwood and Ernst & Young.

Sections B.1 and B.3 in this appendix reproduce the results that were originally provided in the AEMC's options paper published in December 2014. The results from the analysis undertaken by ROAM Consulting have been updated in the interim period to account for market outcomes up to the end of 2014. Section B.2 provides the results of analysis undertaken by Ernst & Young in August 2015.

B.1 Late rebidding and the effect on pool price outcomes

The AEMC engaged ROAM Consulting to undertake a quantitative analysis of rebidding activity in the NEM. The objective of the analysis was to provide an assessment of the materiality of the issues that are raised in the rule change request by investigating the extent to which generator bidding, and more specifically late rebidding, has impacted on pool price outcomes in the NEM.

B.1.1 Key findings

ROAM found through its analysis that:

- the overall rebidding activity of generators has progressively decreased each year since 2007 with a relatively minor resurgence in rebidding activity in the last two years;
- there is little evidence since 2007 of a systematic tendency across the NEM of generators rebidding towards the end of trading intervals and rebidding just prior to dispatch, with the exception of more recently in Queensland, and to a lesser extent in South Australia;
- there is evidence that, when late rebidding has occurred in Queensland and South Australia, it has generally been to shift capacity into price bands above \$300/MWh, although it was noted that late rebidding quite often has a role to play in responding to price spikes in pre-dispatch forecasts and reducing anticipated market volatility;
- higher demand and low import headroom tend to be significantly related to an increased likelihood that rebids will represent movements of capacity to bid bands below \$300/MWh, except for in Queensland, where it is the opposite, with higher demand generally resulting in an increased likelihood of capacity being moved to bid bands higher than \$300/MWh;
- there is a strong statistically significant relationship between the probability of pool price spikes and the occurrence of late rebidding in Queensland in 2014, and to a lesser extent in South Australia in 2013; and
- there is a trend in Queensland during 2013 and 2014 of generation withholding capacity to high price bands towards the end of trading intervals.

B.1.2 Methodology

The work was divided into two stages comprising a descriptive statistical analysis of rebidding in the NEM and an identification of statistically significant relationships between generator bidding behaviour and market parameters such as spot prices and demand.

The analysis covered the period between 1 January 2007 and 31 December 2014. This period was chosen so as to be long enough to capture the period prior to the recent decline in demand and relative growth in supply.

In stage 1, ROAM processed all of the bidding data submitted by generators since the beginning of 2007 to develop descriptive statistics which illustrated:

- the frequency of rebidding by each generating unit on a yearly, monthly and time of day basis;
- the frequency with which rebids were submitted that represented a movement of capacity to higher or lower price bands;
- the timing of rebids with respect to the 5-minute dispatch intervals to which the bid applied; and
- the frequency with which rebids were submitted for dispatch intervals within the same 30-minute trading interval.

In stage 2, the data collected in stage 1 was used to examine the potential for statistically significant relationships between observations as to the nature of rebidding and other factors such as regional demand, spot prices, etc.

A more detailed explanation of the methodology adopted by ROAM is provided in appendix B of the AEMC's options paper.¹⁸¹

B.1.3 Results from the analysis

The following section sets out the principal findings from ROAM's analysis on the extent and impact of rebidding, including late rebidding, in the different regions of the NEM.

For stage 1, ROAM's analysis was based on a large dataset (approximately 300 million separate data points) of generator rebidding since 2007 and produced an extensive collection of results.

For the purposes of the stage 2 analysis, ROAM developed a series of tables to demonstrate the statistical relationships between generator bidding behaviour and relevant market variables, including price, demand, pre-dispatch forecasts, etc. The results of the analysis are based on the symbols and colours set out in Figure B.1.

¹⁸¹ AEMC, *National Electricity Amendment (Bidding in good faith) Rule 2014 – Options Paper*, 18 December 2014, pp. 81-82.

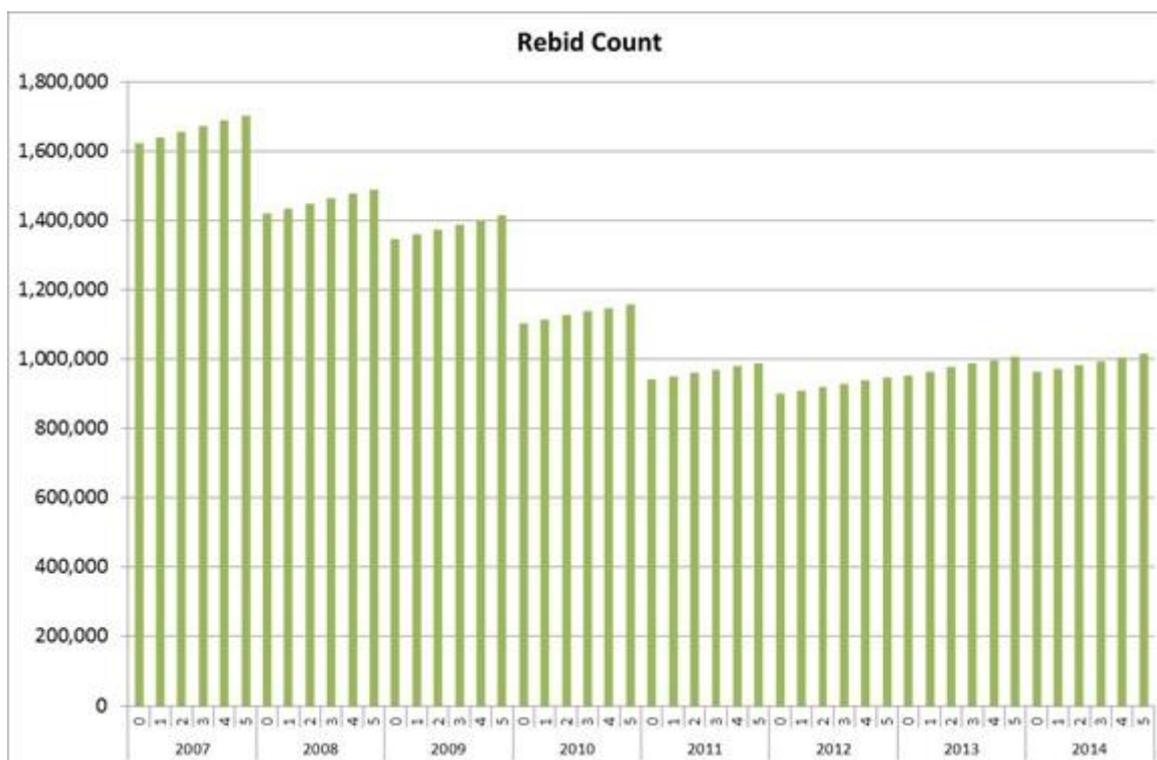
Figure B.1 Illustrations of statistical significance

Inference	Symbol	Direction	Significance Level
Mildly Significant		Positive	10%
Moderately Significant		Positive	5%
Highly Significant		Positive	1%
Mildly Significant		Negative	10%
Moderately Significant		Negative	5%
Highly Significant		Negative	1%

Late rebidding

Figure B.2 below shows the count of all rebids that have occurred in the NEM since 2007, categorised according to which number dispatch interval within the trading interval that they apply to. It can be seen that rebidding activity has been decreasing year on year, with a mild resurgence in the two most recent calendar years. It is important to note that the chart does not show a count of the number of rebids that have been *made within* each dispatch interval, but rather the number of rebids which may have been made some time before but which *apply* to each dispatch interval.

Figure B.2 Count of all rebids that apply to dispatch intervals - NEM



It is evident from the chart that, within each year, the number of rebids that apply to each dispatch interval increases over the trading interval. This is to be expected, as rebids are made for whole trading intervals rather than for specific dispatch intervals, and so any rebids that are made within the relevant trading interval to which they apply will only impact the remaining dispatch intervals within that trading interval. Later dispatch intervals within trading intervals will therefore accrue more rebids that apply to them over time than earlier dispatch intervals.

An important point to note from figure B.2 is that the gradient of the increase across dispatch intervals within each year is relatively linear, which suggests that in the NEM as a whole, there is minimal evidence of a systematic tendency towards actively rebidding towards the end of a trading interval. Evidence of rebidding towards the end of trading intervals would tend to show a curved rather than linear relationship.

However, figure B.3 demonstrates how this relationship changes when analysing rebidding behaviour at a regional level. The chart shows a comparison of the tendency for rebids to occur close to dispatch (late rebidding) where capacity was shifted to price bands above \$300/MWh. For the purposes of comparison, the quantity of rebids has been averaged across all dispatch intervals and across all generating units within each region.¹⁸² It is evident that there is a significantly greater tendency to rebid close to dispatch in Queensland than in any other region of the NEM. This is particularly evident in the two most recent calendar years during the summer months.

Figure B.3 Regional comparison of late rebidding that shifted capacity to price bands above \$300/MWh

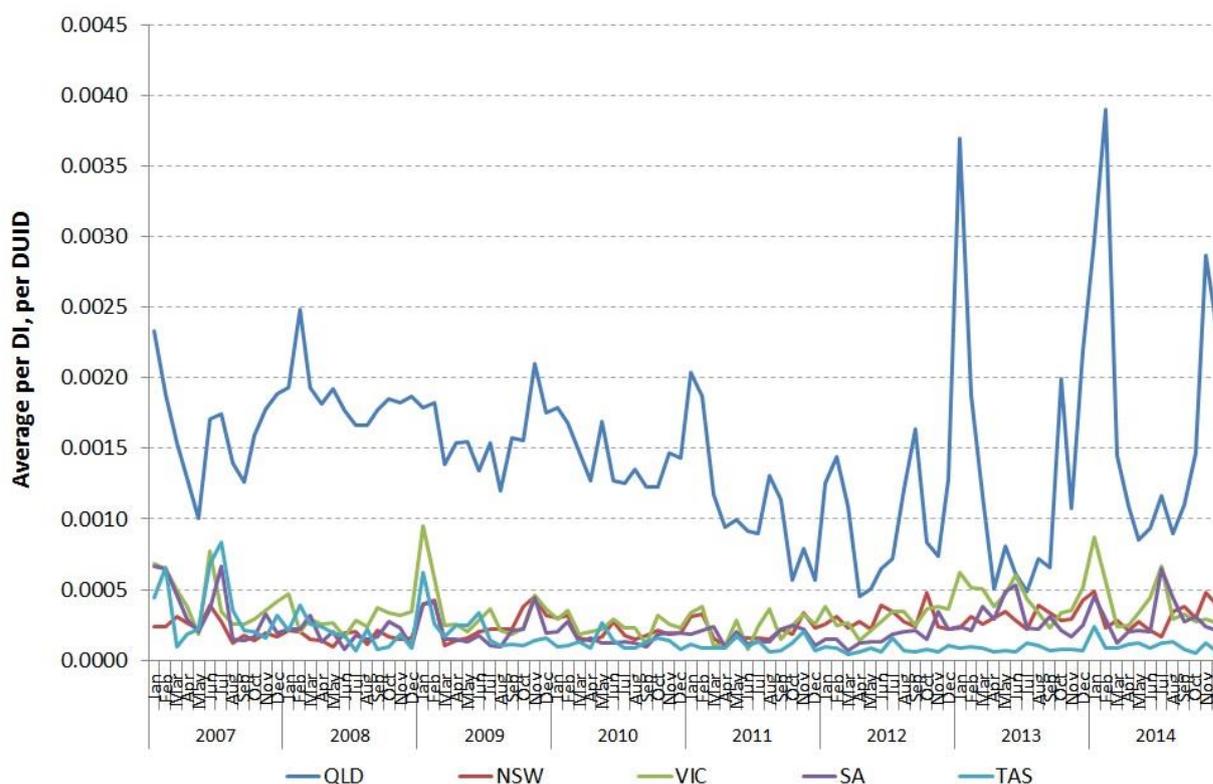
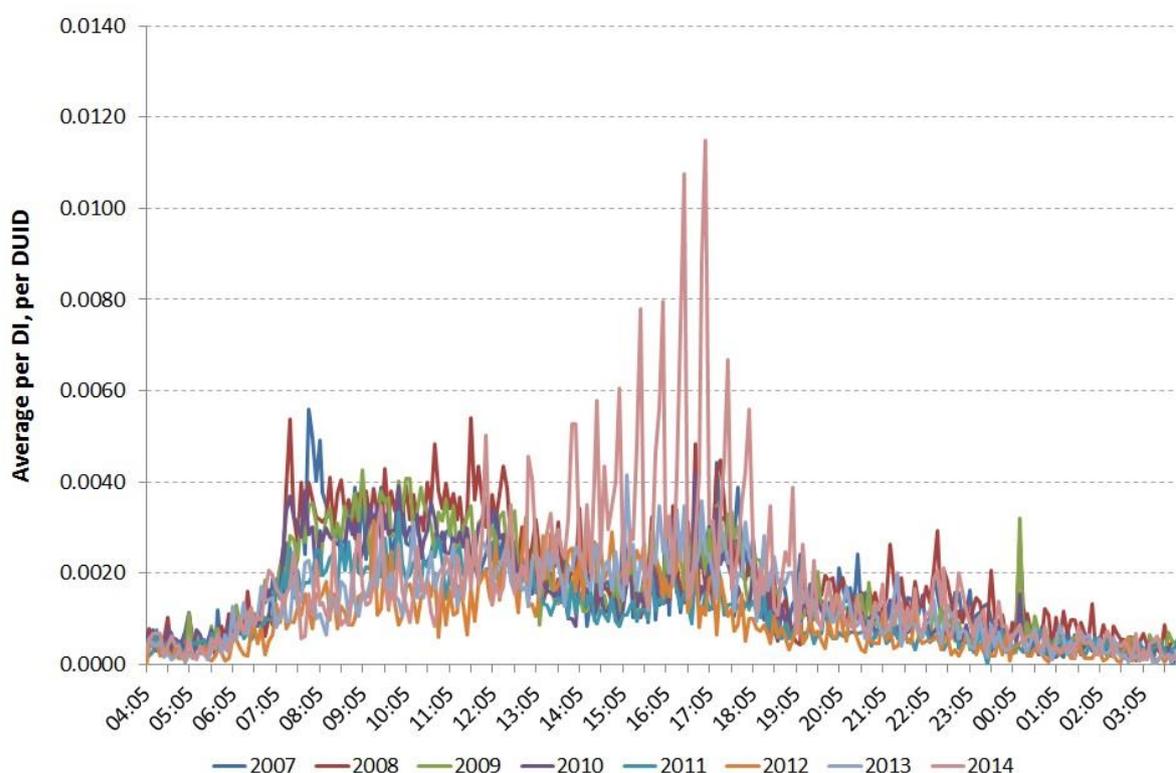


Figure B.4 breaks the observations in Queensland down by time of day. It can be seen that most of the late rebidding to price bands above \$300/MWh has occurred towards the afternoon and early evening when demand is at its highest. Specifically, it can be seen that the most recent calendar year has seen late rebidding by generators that is significantly greater than activity in previous years.

¹⁸² Care should be taken in comparing results as the number of generating units varies between regions.

Figure B.4 Time of day late rebidding to price bands above \$300/MWh - QLD



The relationship between late rebidding and market conditions

Figure B.5 shows the relationship between the level of demand and the occurrence of late rebidding into low and high price bands. While not all years show a significant relationship, in those that do, higher demand tends to be significantly related to an increased likelihood that all rebids will represent movements of capacity to bid bands below \$300/MWh (convergent arrows). In Queensland, it is generally the opposite with higher demand resulting in an increased likelihood of capacity being withdrawn to bid bands above \$300/MWh (divergent arrows).

Figure B.5 Relationship between demand and late rebidding

		2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Above 300	↗	↗	↗	↗	↗	↗		↗
	Below 300	↘	↘	↘	↘	↘	↘		↘
New South Wales	Above 300				↗	↗	↗	↗	↗
	Below 300				↘	↘	↘	↘	↘
Victoria	Above 300		↗		↗	↗	↗	↗	↗
	Below 300		↘		↘	↘	↘	↘	↘
South Australia	Above 300	↗	↗	↗	↗	↗	↗	↗	↗
	Below 300	↘	↘	↘	↘	↘	↘	↘	↘
Tasmania	Above 300					↗			
	Below 300					↘			

ROAM also considered the impact of import headroom on bidding behaviour. Import headroom refers to the spare capacity for interconnectors to import energy and is commonly a factor in high regional prices. In the analysis, headroom considers the combined import across multiple interconnectors. Low import headroom was expressed as being below 150 MW. Figure B.6 shows that Queensland has the most

significant relationship between low import headroom and the type of late rebidding. Low import headroom consistently results in an increased frequency of late rebids which move capacity above \$300/MWh.

Figure B.6 Relationship between low import headroom and late rebidding above \$300/MWh

		2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Above 300		↕		↕	↕	↕	↕	↕
	Below 300		↕		↕	↕	↕	↕	↕
New South Wales	Above 300			↕					
	Below 300			↕					
Victoria	Above 300				↕				
	Below 300				↕				
South Australia	Above 300	↕						↕	↕
	Below 300	↕						↕	↕
Tasmania	Above 300					↕	↕		
	Below 300					↕	↕		

ROAM considered two case studies to examine the impact of binding transmission constraints on bidding behaviour. The two constraints were:

- Q>>NIL_855_871 in Queensland
- N>>N-NIL_S in New South Wales

ROAM identified these two constraints as having had significant impacts on wholesale market price outcomes in the past, although it was noted that both of these constraints have since been alleviated through network investment.

Figure B.7 shows the relationship between late rebidding frequency in Queensland and New South Wales and the binding of transmission constraints. The grey sections of the table represent periods when the constraints did not bind. There is a positive relationship between late rebidding frequency and the binding of constraints in Queensland in 2012 and 2013 and in New South Wales in 2009 and 2010. ROAM suggests that the negative relationship in Queensland from 2008 to 2011 is the result of accounting for other factors such as demand and import headroom, which both tend to be related to the incidence of constraints binding, ie demand is generally high during periods when the constraints are binding.

Figure B.7 Binding constraints and late rebidding frequency

		2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Late rebid freq.		↕	↕	↕	↕	↕	↕	
New South Wales	Late rebid freq.			↕	↕				

Figure B.8 shows an increased likelihood in Queensland in 2011 and 2013 of late rebidding into high price bands when transmission constraints are binding.

Figure B.8 Binding constraints and late rebidding type

		2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Above 300					↕		↕	
	Below 300					↕		↕	
New South Wales	Above 300								
	Below 300								

Price impacts

Figure B.9 shows the impact of high pool price forecast 30 minutes before a dispatch interval on the type of rebids submitted for that dispatch interval during the 30 minute period. South Australia is the most extreme example, with high pre-dispatch forecasts resulting in increased bidding activity to low bands in all years. This is also generally true for Queensland and Victoria in recent years. This indicates an efficient response to the market signal that the region is short of low priced capacity in the near future.

Figure B.9 Relationship between pre-dispatch price spike forecast and rebidding type

		2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Above 300	↘	↘				↘	↘	↘
	Below 300	↗	↗				↗	↗	↗
New South Wales	Above 300	↘	↘	↘	↘	↘	↘		
	Below 300	↗	↗	↗	↗	↗	↗		
Victoria	Above 300	↘	↘		↘		↘	↘	↘
	Below 300	↗	↗		↗		↗	↗	↗
South Australia	Above 300	↘	↘	↘	↘	↘	↘	↘	↘
	Below 300	↗	↗	↗	↗	↗	↗	↗	↗
Tasmania	Above 300	↘		↘	↘	↘	↘	↘	↘
	Below 300	↗		↗	↗	↗	↗	↗	↗

Figure B.10 shows the relationship between late rebids and actual pool price spikes. The table shows that a higher proportion of late rebids to price bands above \$300/MWh can have both a positive and negative relationship with pool price spikes. The strongest relationships that indicate that a higher proportion of late rebids to high price bands increases the likelihood of pool price spikes are in South Australia in 2013 and Queensland in 2014.

Figure B.10 Relationship between late rebidding type and pool price spikes¹⁸³

	% Bids to Above 300:	2007	2008	2009	2010	2011	2012	2013	2014
Queensland	Late Re bids = Last DI	↘					↘		↘
	Late Re bids = 30 mins	↗	↗		↗		↗		↗
New South Wales	Late Re bids = Last DI			↘	↘	↘		↘	
	Late Re bids = 30 mins			↗	↗	↗		↗	
Victoria	Late Re bids = Last DI						↘		
	Late Re bids = 30 mins	↗	↗	↗			↗		
South Australia	Late Re bids = Last DI	↘	↘	↘	↘			↘	
	Late Re bids = 30 mins	↗	↗	↗	↗			↗	
Tasmania	Late Re bids = Last DI	↘							↘
	Late Re bids = 30 mins	↗		↗	↗				↗

The high frequency of price spikes in the sixth dispatch interval is shown for Queensland in Figure B.11. This can be compared to Figure B.12 which shows the frequency of price spikes in the different dispatch intervals of trading intervals from 2007 to 2011. ROAM notes that this trend is not clearly identifiable in other regions of the NEM, with the possible exception of South Australia in 2013.

¹⁸³ The types of late rebids shown includes late rebids made within the last dispatch interval prior to dispatch and late rebids made within the last 30 minutes prior to dispatch.

Figure B.11 Price spikes in Queensland - 2014

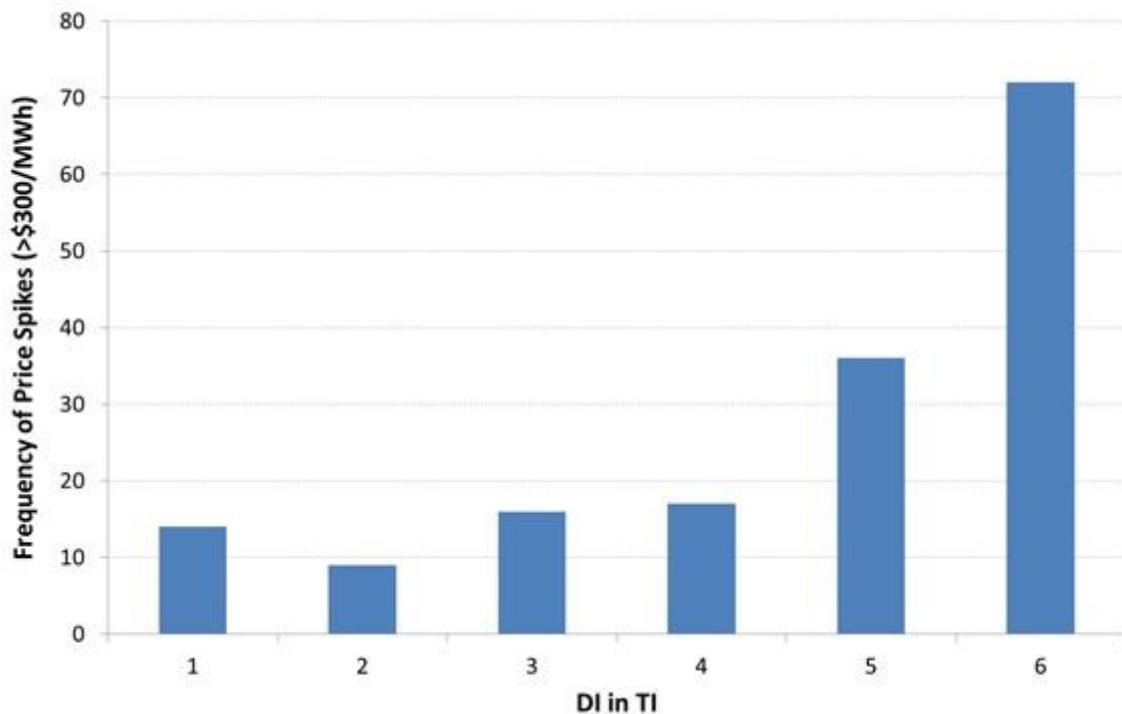
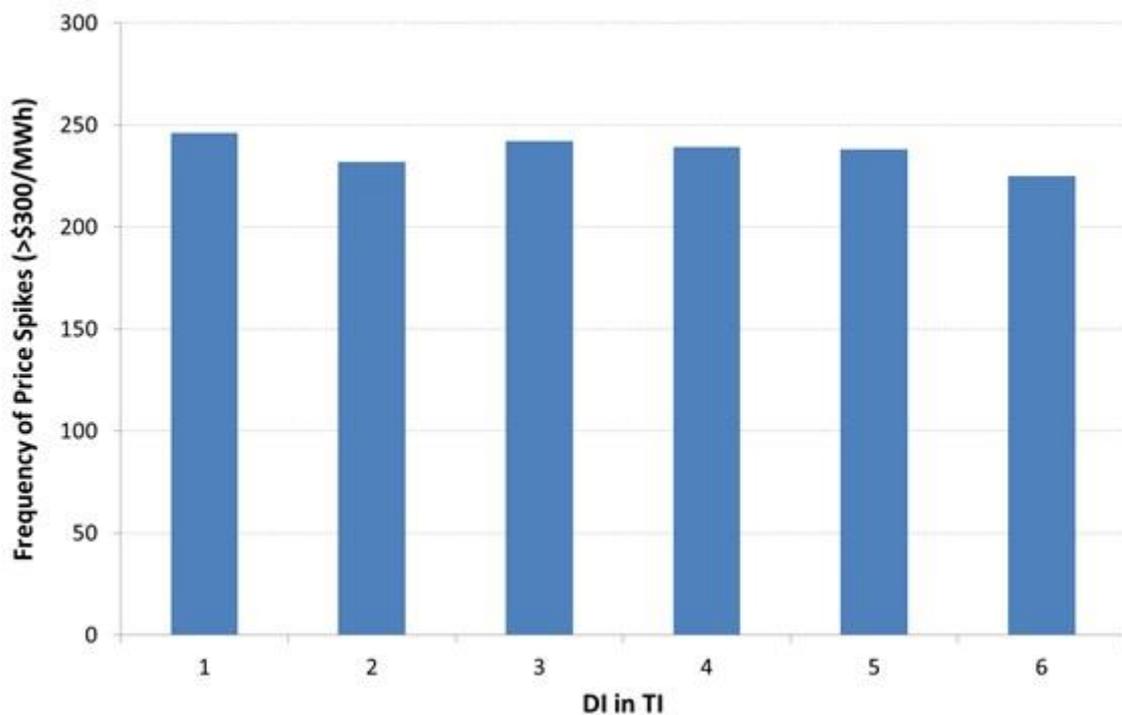


Figure B.12 Price spikes in Queensland - 2007 to 2011



B.2 Late rebidding and the effect on contract market outcomes

The AEMC engaged Ernst & Young to undertake a quantitative analysis of the relationship between late rebidding and contract market outcomes in the NEM. The objective of the analysis was to provide an assessment of the materiality of late rebidding behaviour in determining prices and outcomes in electricity contract markets.

The assessment included a discussion of the theoretical impact of late rebidding behaviour and the contract market in different NEM jurisdictions, and an assessment of the materiality of late rebidding behaviour in determining prices and outcomes in electricity contract markets.

B.2.1 Key Findings

Ernst & Young found that late rebidding has the potential to create price spikes, and that there are strong, consistent relationships between observed levels of price volatility and subsequent movements in the price of electricity futures contracts. These relationships are most strongly observed at the quarterly level. As a result, late rebidding may have a material impact on contract markets. As an order of magnitude assessment, deliberate late rebidding is estimated to have added a premium of eight dollars per megawatt hour to the price of caps Queensland in the final quarter of 2014, and seven dollars per megawatt hour in the first quarter of 2015. Overall, the additional expenditure on ASX traded caps and base futures caused by deliberate late rebidding over this time period has been estimated at \$103.8 million. This does not include impacts on other hedge products, such as options, or bilateral transactions on the OTC market. Therefore, the total magnitude of impact may be substantially higher than this value. Ernst & Young has suggested an assumption of 60 percent of Queensland contracts traded through ASX energy¹⁸⁴, meaning that once OTC trades are taken into account, the total magnitude of the impact would increase to approximately \$170 million. While a number of assumptions have gone into calculating this figure, it serves as a guide to the order of magnitude of the impact on the contract market.

There was some evidence for a positive relationship between the daily incidence of price spikes and daily traded contract volumes. The analysis failed to find, or found only mixed and inconsistent, evidence of a relationship between either price spikes or late rebidding, and traded contract volumes on a quarterly level.

Ernst & Young also investigated the hypothesis that price spikes caused by deliberate late rebidding have an impact on the contract market which is quantitatively different from price volatility caused by other factors. Theoretically, some participants have suggested that price volatility caused by deliberate late rebidding is less predictable than other forms of price volatility, since it is divorced from the fundamentals of supply and demand and driven purely by generator behaviour, as well as being potentially related to the confidential contracting positions of portfolios within each region. However, little or no statistical evidence was found to support this hypothesis.

B.2.2 Methodology

The work was divided into two stages comprising a theoretical discussion of the impact of late rebidding on contract markets in the NEM, and an identification of statistically significant relationships between spot price volatility and market parameters such as contract prices and traded volumes.

¹⁸⁴ Based on the 2014 Australian Financial Markets Report

The analysis covered the period between 1 January 2007 and 31 December 2014, as well as the first two quarters of 2015. This period was chosen so as to be long enough to capture the period prior to the recent decline in demand and relative growth in supply.

In stage 1, Ernst & Young assembled the following data sources:

- contract market data from ASX Energy, including settlement prices and traded volumes for quarterly base futures and quarterly cap futures;
- bidding data aggregated to the contract trading day level, so that each daily output reflects the bidding behaviour of generators since the close of the previous contract market trading day; and
- wholesale market data aggregated to the contract trading day level.

Price metrics considered included:

- average RRP;
- number of price spikes (>\$300/MWh); and
- the total dollar value of prices during spikes in the 6th dispatch interval.

Bidding metrics considered included:

- the average number of rebids within the last dispatch interval;
- the average number of rebids within the last DI that represent a movement of capacity to prices above \$300/MWh; and
- as per both of the above – limited to price spike periods.

In stage 2, Ernst & Young outlined the following potential relationships between late rebidding and contract market outcomes:

- late rebidding causing spot price volatility leading to an increase in contract prices within the same time period;
- late rebidding causing spot price volatility leading to an increase in contract prices for subsequent time periods; and
- whether spot price volatility caused by late rebidding has an impact on contract prices that is different from spot price volatility caused by other factors.

In stage 3, the data from stage 1 was analysed using linear regression techniques in order to determine:

- whether the theoretical relationships described in stage 2 are supported by statistical evidence; and
- the magnitude of impacts.

In addition, Ernst & Young sought to quantify the contract market impacts of *deliberate* late rebidding (as opposed to late rebidding generally). This required an estimation of the proportion of late rebids which could be classified as having been deliberately delayed in order to withhold information from the market. As a sensitivity test, two alternative methodologies were used:

- Methodology A assumed that the increased likelihood of price volatility in the 5th and 6th dispatch intervals (in comparison with the first four dispatch intervals) is

caused by deliberate late rebidding. This assumption is used to generate a counterfactual for the level of price volatility had deliberate late rebidding not occurred. However, since elevated levels of volatility in later dispatch intervals could be the result of other factors, this methodology may overstate impact attributable to deliberate late rebidding. Alternatively, it may underestimate the impact by failing to account for deliberate late rebids taking place in dispatch intervals 1-4.

- Methodology B adjusted Methodology A to account for the potential for price volatility to be higher in the later dispatch intervals without deliberate late rebidding by using historical price volatility observations. Price volatility outcomes in Queensland between 2009 and 2011 have been used to determine an alternative distribution of price volatility across the trading interval. This period covers the portion of the dataset from before the trend of increasing volatility in the later dispatch intervals. This distribution is used to determine the counterfactual level of volatility after the removal of deliberate late rebidding.

B.2.3 Results from the analysis

The following section sets out the principal findings from Ernst & Young’s analysis on the relationship between late rebidding and contract market outcomes.

Direction of relationship

For the purposes of the stage 2 analysis, Ernst & Young developed a series of tables to demonstrate the statistical relationships between late rebidding, price volatility, and contract market prices and traded volumes. The results of the analysis are based on the symbols and colours set out in Figure B.13. Where relationships are found to have a level of significance above 10 percent (that is, the estimated probability of observing such a result in the absence of any true relationship is greater than 10 percent), these are described as having no relationship. A grey square indicates that there is insufficient data to develop a relationship. This generally results from a lack of price volatility and/or a lack of contract prices over the relevant period (particularly in the earlier years of the study).

Figure B.13 Significance key

Inference	Symbol	Direction	Significance Level
Mildly significant		Positive	10%
Moderately significant		Positive	5%
Highly significant		Positive	1%
Not significant		-	-
Insufficient data		-	-
Mildly significant		Negative	10%
Moderately significant		Negative	5%
Highly significant		Negative	1%

Figures B.14 and B.15 below illustrate that at a quarterly level, both price spikes and late rebidding are associated with an increase in contract market prices.

Figure B.14 Impact of price spikes on current quarter contract prices

Table 2: Impact of price spikes on current quarter contract prices - Quarterly

Contract Type	QLD	NSW	VIC	SA
Base				
Cap				

Figure B.15 Impact of late rebidding on current quarter contract prices

Table 9: Impact of late rebidding on current quarter contract prices - Quarterly

Contract Type	QLD	NSW	VIC	SA
Base				
Cap				

Table 10: Impact of late rebidding on next quarter contract prices - Quarterly

Contract Type	QLD	NSW	VIC	SA
Base				
Cap				

Table 11: Impact of late rebidding on current quarter next year contract prices - Quarterly

Contract Type	QLD	NSW	VIC	SA
Base				
Cap				

Magnitude of relationship

Table B.1 below shows the magnitude of the impact of deliberate late rebidding on cap contract prices in Queensland as estimated under Methodology A. Table B.2 estimates the total magnitude of the impact of the changes in cap contract prices calculated using Methodology A.

Table B.1 Reduction in cap contract prices (\$/mWh) in Queensland - Methodology A

Year	Quarter	This quarter cap contracts	Next quarter cap contracts	This quarter next year cap contracts
2012	1	1.8	0.4	0.3
2013	1	2.2	0.5	0.4
2014	1	11.2	2.4	2.2
2014	4	9.0	1.9	1.7
2015	1	8.8	1.8	1.7

Table B.2 Magnitude of impact from removal of deliberate late rebidding (\$m) - cap futures contracts in Queensland - Methodology A

Year	Quarter	This quarter cap contracts	Next quarter cap contracts	This quarter next year cap contracts
2012	1	1.1	0.3	0.1
2013	1	3.4	0.2	0.2
2014	1	7.9	0.9	0.8
2014	4	11.0	2.5	0.3
2015	1	17.2	1.2	1.8

Tables B.3 and B.4 reproduce these results as calculated using Methodology B. While the estimated magnitude of impacts is somewhat lower, possibly reflecting an overestimation under Methodology A of the proportion of late bids that are deliberately delayed, the order of magnitude results remain similar.

Table B.3 Reduction in cap contract prices (\$/mWh) in Queensland - Methodology B

Year	Quarter	This quarter cap contracts	Next quarter cap contracts	This quarter next year cap contracts
2012	1	1.7	0.4	0.3
2013	1	1.2	0.3	0.2
2014	1	11.1	2.3	2.1
2014	4	8.3	1.7	1.6
2015	1	7.3	1.5	1.4

Table B.4 Magnitude of impact from removal of deliberate late rebidding (\$m) - cap futures contracts in Queensland - Methodology B

Year	Quarter	This quarter	Next quarter	This quarter next year
2012	1	1.1	0.3	0.1
2013	1	1.9	0.1	0.1
2014	1	7.8	0.9	0.8
2014	4	10.2	2.3	0.3
2015	1	14.4	1.0	1.5

Table B.5 Magnitude of impact from removal of deliberate late rebidding (\$m) - base futures contracts in Queensland - Methodology A

Year	Quarter	This quarter	Next quarter	This quarter next year
2012	1	5.0	1.1	0.2
2013	1	6.3	1.1	0.4
2014	1	30.8	7.3	2.7
2014	4	36.4	7.1	4.0
2015	1	54.4	8.5	2.6

Table B.6 Magnitude of impact from removal of deliberate late rebidding (\$m) - base futures contracts in Queensland - Methodology B

Year	Quarter	This quarter	Next quarter	This quarter next year
2012	1	4.8	1.1	0.1
2013	1	3.5	0.6	0.2
2014	1	30.6	7.2	2.7
2014	4	33.5	6.5	3.7
2015	1	45.7	7.1	2.2

B.3 The impact of late rebidding on the ability of participants to respond

The AEMC engaged Oakley Greenwood to undertake an assessment of the extent to which generator bidding behaviour impacts on the ability of large users in the NEM to engage in demand-side participation.

The objective of this assessment was to investigate the extent to which the rebidding activities of generators impact directly on wholesale market price outcomes and, as such, have the potential to affect the value received by end-use customers that provide demand response. The assessment included consultations with key organisations involved in the provision of demand response.

B.3.1 Key findings

Oakley Greenwood has found through its assessment that:

- full pool price exposure for large electricity customers is rare with participation in a retailer program or taking partial pool price exposure through a retailer being

the most common arrangements used as the basis for providing demand response into the wholesale market;

- while there are few reliable estimates of the overall levels of demand response in the NEM, the current over-supply of generation capacity has reduced price volatility and created market conditions that are not particularly conducive to the take-up of demand response activities by end-use customers;
- a number of organisations consulted noted that, of the price volatility that does occur, the departures in price in the present market tend to occur at unusual times, are relatively short in duration, and tend to occur in the last one or two dispatch intervals of trading intervals;
- the majority of organisations consulted viewed these factors as making it difficult to predict or foresee with an acceptable level of accuracy when a period of sufficiently high prices to warrant the provision of a demand response is likely to occur and this has further contributed to a reduction in the amount of demand response that is available;
- some organisations considered such price spikes to be instances of market failure because they are caused by generators opportunistically making rebids and are unrelated to the genuine conditions of supply and demand in the market, while other organisations took the view that generators creating these price spikes have simply found a way to gain a competitive advantage and that the market will correct over time through participants seeking counteracting measures;
- virtually all of the organisations consulted considered that the instances in which prices have suddenly and significantly changed in the last one or two dispatch intervals is a recent phenomenon, occurring within the last two years and primarily in Queensland and South Australia; and
- there is a substantial level of interest from customers and intermediaries that are not currently providing demand response but are technically capable of doing so, with some additional and potentially significant emerging opportunities that are being driven by the changing Australian economy.

B.3.2 Methodology

Oakley Greenwood based its assessment on the knowledge and experience of its project team, relevant secondary sources, and through extensive individual consultations with key organisations.

A total of 22 organisations were consulted representing a broad cross-section of stakeholders including demand response aggregators and advisers, electricity retailers, individual large consumers of electricity, organisations that represent large energy users, and electricity distribution businesses.

Interviews were generally conducted in person with phone interviews undertaken in instances where face-to-face meetings were not possible.

The principal topics covered included:

- the amount and type of demand response currently made available in MWs;

- the operational characteristics of the demand response provided;
- the commercial arrangements under which the demand response is provided;
- factors of importance to end users when considering whether to enter into demand response arrangements;
- whether late rebidding has affected the amount or type of demand response provided; and
- how the experiences of providing demand response has changed over time.

B.3.3 Results from the assessment

The following section sets out the principal findings from Oakley Greenwood's assessment of the impacts of generator bidding behaviour on demand-side participation in the NEM.

Current demand-side participation in the NEM

Demand response is a change made in electricity consumption by a large consumer in response to real time conditions in the electricity supply chain. These conditions can be defined by:

- price (as in the case of wholesale market price, or a critical peak demand network price); or
- operating conditions (such as the need to control frequency or relieve congestion in a local area of a distribution network).

The consumer may be directly exposed to the price signal or may change consumption in response to a request from another party in the electricity supply chain.

It is typically only in conditions where demand response participation in the energy market is to reduce exposure to high spot prices that are likely to be affected by late rebidding.

The sources of demand response typically provided by participants are largely influenced by the nature of the participant's equipment and the operational characteristics of the facility. Demand response may be provided through:

- the use of an onsite generator to offset mains electricity consumption;
- the substitution of electricity with the use of another fuel on a temporary basis;
- load cycling or temporary consumption reduction; and
- load curtailment or rescheduling of load.

Typically, end users will be reluctant to make any substantial changes to operations or equipment to provide a demand response unless they also derive some additional benefits in production efficiency or the demand response can provide financial benefits with reasonable certainty and within a short timeframe.

Generally, the demand response that is initially provided by an end user will be the simplest and easiest opportunities available within the facility. Any incremental investments in further demand response will likely only occur if responding to the price

signal or retailer call is not burdensome or where the financial returns are clear and reasonably certain.

The financial benefit accrued through the provision of demand response depends to a large extent on the nature of the commercial arrangements. There are several ways large energy users can provide demand response into the wholesale market.

Oakley Greenwood notes that participation in a retailer program or taking partial pool price exposure through a retailer are the most common arrangements used by large electricity customers as the basis for providing demand response into the NEM's wholesale market. Only three end-use customers in the history of the NEM have taken full pool price exposure as wholesale market customers, and only one customer based in South Australia is doing so at present.

Estimates of current demand response in the NEM

Oakley Greenwood notes that there are minimal reliable estimates of the relative proportions of different types of demand response currently active in the NEM. Further, the total level of demand response that is currently being exercised in the market is also difficult to assess for a number of reasons.

- Not all demand response is exercised in the market at the same time. A customer's ability or willingness to provide demand response on any particular occasion will depend on a number of factors beyond the market price, such as production requirements and commitment times.
- Disclosure of demand response information provides no commercial advantages to customers and may in fact pose a risk of commercial disadvantage.

Tables B.7 and B.8 show estimates developed by AEMO of the amount of demand response available by NEM region in winter and summer.¹⁸⁵

Table B.7 Estimated available demand response (MW) - Winter 2014

	QLD	NSW	VIC	SA	TAS
Prices > \$300/MWh	49	18	45	39	0
Prices > \$500/MWh	49	22	57	41	5
Prices > \$1000/MWh	51	24	63	43	5
Prices > \$7500/MWh	61	80	140	126	37
Prices = MPC	123	214	262	147	56

¹⁸⁵ Oakley Greenwood, *The impact of late rebidding on the provision of demand response by large electricity users in the NEM*, 25 November 2014, p. 11. MW values in rows are cumulative.

Table B.8 Estimated available demand response (MW) - Summer 2014-15

	QLD	NSW	VIC	SA	TAS
Prices > \$300/MWh	49	18	65	39	0
Prices > \$500/MWh	49	22	77	41	5
Prices > \$1000/MWh	51	24	83	43	5
Prices > \$7500/MWh	61	85	214	126	37
Prices = MPC	123	219	336	147	56

Late rebidding and the provision of demand response

Oakley Greenwood suggests that the current over-supply of generation capacity in the NEM is not particularly conducive to the take up of demand response activities by end use customers. The over-supply has resulted in historically low wholesale market prices, and a reduction in price volatility. This has meant there is significantly less revenue available over the course of a year from demand reductions that are undertaken at or above the level of price at which demand response generally enters the market.

However, a number of organisations consulted noted that, of the price volatility that does occur, the departures in price in the present market are different from those that have occurred previously. These differences include:

- significantly diminished relationship between supply/demand conditions and price than characterised the market previously;
- significant increases in spot price occurring at times they have not tended to occur in previous years;
- periods of high price being relatively short in duration as compared to previously; and
- those periods of significant price increase tending to occur in the last one or two 5-minute dispatch intervals of a given 30-minute trading interval.

The majority of the organisations that were consulted viewed these factors as making it difficult to predict or foresee with an acceptable level of accuracy when a period of sufficiently high price to warrant the provision of a demand response is likely to occur. Further, they felt that these short periods of high price would not normally be expected given the general supply and demand conditions at the time and are driven principally by the bidding behaviour of generators in a manner which is intended to increase revenue in the current subdued market environment.

The majority of organisations consulted consider that this bidding behaviour has further contributed to a reduction in the amount of demand response that is available, as the nature of the high price events entails greater levels of risk for demand response providers. However, organisations consulted had substantially different views as to whether this should be considered as market price manipulation or rational economic behaviour.

Taking the former view were aggregators, specialist retailers and representatives of consumer organisations who consider that such price spikes should be seen as instances of market failure because they are unrelated to the genuine conditions of supply and demand in the market. They note that instances of late rebidding are generally undertaken by baseload generators that rebid a large amount of capacity to a very high price, typically towards the end of a trading interval. This action forces the price to be set by the next generator bid that meets the level of demand. By engaging in this behaviour, baseload generators are exploiting their position in the bid stack in the knowledge that no other generator can respond in time to the price signal. While it was noted that these strategies are not always successful at increasing the price, they still have the capacity to result in price spikes even at low levels of demand.

Those taking the latter view were generally retailers associated with generation businesses who consider that the generators engaging in the rebidding activity have simply found a way to gain a competitive advantage. The self-correcting nature of the market will arise through other participants seeking opportunities to counteract the behaviour.

A number of participants suggested that of most concern for demand response providers is when late rebidding results in high prices in the last one or two dispatch intervals of a trading interval. In these cases, the demand response will only have a counteracting effect if it can be activated very quickly. In addition, even if the demand response is quick to react, electricity will already have been consumed for the first four or five dispatch intervals when the market price was much lower and the energy already consumed will be exposed to the whole 30-minute settlement price for the trading interval.

These concerns have also been raised by peaking generators that need to generate at times of high market price to provide sufficient revenue to meet their obligations under sold cap contracts. Late rebids that occur towards the end of trading intervals can result in significant payouts without compensating pool revenue if they are unable to generate in time.

Some participants interviewed considered that peaking generators have an opportunity to reconfigure their plant to respond to price spikes at short notice, and that this is part of the self-correcting nature of the market. Other participants considered that such reconfigurations are likely to be inefficient and not in the long-term interests of consumers as they increase costs with no added benefits in the supply of electricity.

Oakley Greenwood consulted one generator that has reconfigured its plant to go from zero to full load in a few minutes. The generator considered that the additional capital expenditure and operational costs were justified on commercial grounds in order to increase plant flexibility.

The impact of late rebidding on the incentives for demand response

Oakley Greenwood concludes that current market conditions are very poor for demand response. All of the participants consulted were of the view that current returns in the market for the provision of demand response are inadequate. In addition, the current late bidding behaviour of generators increases the risks of participation in the market and the provision of demand response.

Virtually all of the organisations consulted considered that the instances in which prices have suddenly and significantly changed in the last one or two dispatch intervals is a recent phenomenon, occurring within the last two years and primarily in Queensland and South Australia.

In most cases, the occurrence of these price events is difficult to predict and generally only lasts around 5 to 15 minutes. The fleeting nature of these events means that only demand response resources that can be initiated very quickly can be used to any benefit. Aggregators and retailers that are relatively active in working with demand response participants consider that the only resources that are engaging in demand response any more are those that can deliver within 15 to 30 minutes.

Future implications for demand response

Oakley Greenwood suggests that while late rebidding may inhibit the active engagement of demand response in the NEM, there may be significantly more demand response available that is not being realised. They have determined through their consultations that there is a substantial level of interest from customers and intermediaries that are not currently providing demand response but are technically capable of doing so.

They note that these findings are consistent with other studies undertaken including a recent report published by ClimateWorks entitled *Industrial demand-side Response Potential*.¹⁸⁶ The results from this study were derived from interviews conducted with 34 companies representing 26% of all industrial electricity consumption, and focused on their potential for and likelihood of providing demand response. Estimates of the additional potential demand response are shown in table B.9.

The study estimated that somewhere between 3.1 and 3.8 GW of demand response is potentially available from industrial facilities across Australia, depending on the level of financial return available and effort and expense required. It was concluded that 95% of this additional potential could be available with a notice period of two to four hours, with limited requirement for additional investment. With a notice period of 30 minutes to one hour, this reduces to about 50%, and with a notice period of 15 minutes the additional potential is down to approximately 10%.

¹⁸⁶ ClimateWorks, *Industrial demand-side response potential – Initial findings and discussion paper*, February 2014.

Table B.9 Estimates of demand response potentially available from industrial facilities across Australia¹⁸⁷

Notice period	Potential demand response
Two to four hours	2.95 – 3.6 GW
30 minutes to one hour	1.55 – 1.9 GW
15 to 30 minutes	0.3 – 0.4 GW

Oakley Greenwood notes that changes in the Australian economy are likely to change this demand response potential over time. While the shrinkage of the manufacturing industry is likely to reduce the potential demand response available, there are other emerging opportunities such as pumping and compression of LNG in Queensland that show significant potential for demand response applications. As communications and control technologies improve, a quicker response from existing demand response is also likely to contribute.

¹⁸⁷ Oakley Greenwood, *The impact of late rebidding on the provision of demand response by large electricity users in the NEM*, 25 November 2014, p. 28.

C Compliance costs

The AEMC engaged Oakley Greenwood to undertake an assessment of compliance costs for generators under alternative formulations of the draft rule. The objective of the analysis was to obtain a quantitative estimate of the magnitude of these costs. The assessment included consultations with a range of generators.

C.1 Key findings

Compliance costs for individual generators estimated by Oakley Greenwood for each of three options are summarised in Table C.1. The costs are incremental to current compliance and trading activities. Costs in some cases are less than those presented by stakeholders, for the reasons set out in C.3.

Table C.1 Summary of generator costs

	Option 1: reporting	Option 2: recording	Option 3: behavioural standard
IT establishment			
High volume (re)bidding	\$100,000 – \$200,000	\$50,000 - \$100,000	\$0 – \$25,000
Medium volume (re)bidding	\$50,000	\$50,000	Nil
Rarely (re)bids	Nil	Nil	Nil
Trader staffing	20 per cent establishment cost per annum	20 per cent establishment cost per annum	20 per cent establishment cost per annum
IT ongoing	Business dependent	Business dependent	
High volume (re)bidding	\$450,000	\$300,000	Nil
Medium volume (re)bidding	Nil	Nil	Nil
Rarely (re)bids	Nil	Nil	Nil
Review	\$1,000/report	\$1,000 per report requested by the AER	Nil (incremental)

* Challenged by interviewees

Aggregated compliance costs across the market as estimated by Oakley Greenwood are presented in Table C.2.

Table C.2 Summary of overall market compliance costs

	Option 1: reporting	Option 2: recording	Option 3: behavioural standard
Establishment costs	\$1.45 - \$2.55 million	\$0.9 - \$1.45 million	\$0 - \$0.3 million
Annual IT	\$0.3 - \$0.5 million	\$0.2 - \$0.3 million	\$0.05 million
Annual staff	\$4.95 million	\$3.3 million	Nil
Reporting review			
at \$1000/report	\$100 million	\$2.8 million	Nil
at \$100/report	\$10 million	\$0.3 million	Nil
Total ongoing costs (per annum)			
Lower bound estimate	\$15.3 million	\$3.8 million	\$0.05 million
Upper bound estimate	\$105.5 million	\$6.4 million	\$0.05 million

C.2 Methodology

Oakley Greenwood assessed the implementation and ongoing costs relating to three possible changes to the regulation of late rebids. The options for the reporting/recording regime are described below.

Option 1 - Reporting

As proposed in the first draft rule, for each late rebid the generator or market participant must provide to the AER a report including:

- the material conditions and circumstances giving rise the rebid;
- the generator’s or market participant’s reasons for making the rebid;
- the time at which the relevant event(s) or other occurrence(s) occurred; and
- the time at which the generator or market participant first became aware of the relevant event(s) or other occurrence(s).

Option 2 - Recording

As proposed in the second draft rule, for each late rebid the generator or market participant must keep a contemporaneous record including:

- the material conditions and circumstances giving rise the rebid;
- the generator’s or market participant’s reasons for making the rebid;
- the time at which the relevant event(s) or other occurrence(s) occurred; and

- the time at which the generator or market participant first became aware of the relevant event(s) or other occurrence(s).

Option 3 - Behavioural standard alone

Under this option there would be no change from current arrangements to the nature of the information to be kept in relation to late rebids or the AER's powers to request additional information.

However, as proposed in the second draft rule, there would be a change to the behavioural standard relating to offers and rebids such that offers and rebids must not be false or misleading or likely to mislead and that a rebid must be made as soon as practicable after the relevant party becomes aware of the change in material conditions or circumstances that led to the decision to rebid.

Generators might change their recordkeeping behaviour in order to demonstrate compliance with the behavioural standard, even without an explicit requirement about information to be recorded or reported.

C.2.1 Inputs

Oakley Greenwood assessed four categories of costs directly relating to implementing each of the options:

1. Establishment: designing and building new IT systems to allow relevant information to be captured and training.
2. Operational information collation: collating relevant information in a coordinated manner.
3. Reporting: preparation of a consolidated report.
4. Review: given the legal standing of reports and availability of information the potential for additional management and or legal review of the records.

Additional one-off and on-going staff requirements were also considered.

The assessment excluded indirect costs to commercial positions or market efficiency arising from any change in trading activity.

C.2.2 Methodology

On request, the AER ran queries on their database of bids and rebids over the last 3 years to identify the total number of late rebids and the number of rebids for Plant (P) related reasons for each corporation in the NEM. Late rebids were defined as rebids within 45 minutes of the end of a trading interval (i.e. 15 minutes before the start) in which the first dispatch interval impacted by the rebid fell. We note there are some differences with volume of rebids reported by businesses and presume this is due to definition of search criteria (i.e. the definition of late rebid).

Rebidding parties were classified as high (11 businesses), medium (7 businesses) and small late rebidding corporations. The allocation was based on judgement with the lowest number of rebids classified as High Volume set at 2,700 per year (the highest medium volume rebidder stepped down to 986 per year).

One-off establishment, annual maintenance and staffing costs as well as per report rates have then been calculated in accordance with the rates developed.

Parties who are now within a new or single organisation but were previously separate have been grouped in their current corporation for the purposes of assigning high medium and small volume.

On advice from AER statistics for SECV have been excluded as these relate to Anglesea Power station and are driven by an automated process that responds to the physical fluctuations of the power station.

C.3 Results from the assessment

Each of the assessed options is likely to increase costs to the industry. Shifting what might be called the 'licence' or permission to rebid to one where traders must demonstrate they have sound basis for rebidding and have not delayed the timing of their rebids or that the rebids submitted are not false and misleading, changes the significance of records kept by businesses.

C.3.1 Costs vary by level of rebidding activity

The level of costs incurred by a business will depend on their existing infrastructure and work arrangements and the level of rebidding activity.

Businesses submitting only rare or infrequent rebids are likely to prepare reports and assemble the basis for them immediately after submission on as needed basis. These businesses are therefore not likely to incur material additional costs in the preparation but will incur cost for any review of a report. Such businesses will need to judge what level of establishment costs to incur. It is unlikely they will be justify additional staffing and instead rely on traders to record adequately and prepare an occasional late rebid report.

Larger businesses making significant numbers of rebids including late rebids are likely to incur significant costs in each of the assessed cost categories.

C.3.2 Establishment costs

Oakley Greenwood found that one-off IT system costs for frequent rebidders would be in the order of \$100,000 to \$200,000 with a 20 per cent annual maintenance cost.

The system changes are assumed to be capable of capturing a wide range of data over a number of hours for each rebid. It is assumed that all of the data required is currently available and will often be viewed by traders in the normal course of their activities. Accordingly, enhancements to systems will be concerned with collating and arranging time stamped storage of existing information.

A range of estimates were presented by generators, from \$100,000 to in excess of \$500,000. The range was compared to the budgets for software modifications from Oakley Greenwood's experience, where individual projects would typically be in the order of 15 per cent of the annual total software development budget. For a large business, \$1 million per annum would not be an unusual amount and hence an individual project in the order of \$100,000 - \$200,000 is plausible.

On balance, Oakley Greenwood assessed that a lesser spend is likely for Option 2, but the level will depend on how robust existing systems are. For the purposes of assessment Oakley Greenwood used a 25 per cent discount on Option 1, noting that this is a subjective value.

Option 3 allows for the AER to make a similar request to now. On the assumption participants are compliant with the current rules there would be little increase required. However, as the behavioural standard is higher, Oakley Greenwood assumed cost for due diligence check and minor refinement and set this at a one-off cost of \$25,000.

C.3.3 Information collation

The participants who submit significant numbers of rebids are unlikely to incur material additional costs over and above the establishment costs (above) in order to collate the background information to a rebid as this would be automated.

Smaller players appear likely to rely more on manual collation of information by traders and use less sophisticated systems. However, although this approach may involve some effort for small numbers of rebids the additional effort will be small and within the scope of existing resources.

C.3.4 Recording the basis for rebids

The proposed requirement for a contemporaneous report or the ability to present such a report to explain the basis for each and every late rebid will involve additional effort at the time of rebidding. In interviews with generators it was noted that in a period where multiple rebids are submitted in close succession, such as when the commercial stakes are high because market price is high, traders currently would not have time to create written reports. The end of the shift would be too late to accurately document the judgement calls related to each rebid in a period when 10 - 20 rebids were submitted in quick succession for commercial reasons.

Oakley Greenwood found that, on this basis, existing staff levels would be inadequate – even with the scope to call on the services of other staff to assist traders. Such an arrangement would not work if a busy time occurred out of hours, where some participants rely on on-call traders working from home.

Oakley Greenwood found that one to four additional staff could be required to cover roster positions at a cost of up to \$600,000 per annum. It would be difficult for these staff to be efficiently engaged at other times.

Oakley Greenwood assessed that generators would incur less cost for Option 2 under a prudent risk management strategy, for example providing additional staffing on standby to record details during highest risk days but not at other times.

For the purposes of analysis, Oakley Greenwood has assessed a cost of \$450,000 per annum for Option 1 and \$300,000 per annum for Option 2.

For Option 3, Oakley Greenwood has assessed that there would be no additional cost in terms of staffing, given the small incremental allowance for IT systems.

C.3.5 Compliance and review

Each of the options is based on a higher standard of reporting and information recording and on the significance of reports to AER. A prudent business should be expected to ensure management and legal review of these reports before submission. A cost of \$1,000 per report is likely to be reasonable.

C.3.6 Sensitivities

All three options are likely to prompt generators which regularly submit rebids and especially late rebids to enhance IT support to collate relevant data and information to form part of the record of how the conditions and circumstances of a rebid evolved over time. IT costs are related to the inherent shift in philosophy of rebidding to one of demonstration that inappropriate rebidding did not occur.

Businesses demonstrated a range of sophistication in the IT systems they currently use for recording trading activities. Costs for changes that may have been undertaken anyway to improve existing systems have not been counted.

Trader staff costs are the most significant assessed cost and are also the most sensitive to detailed design. For much of the time, the requirement for reports and records associated with each late rebid that are not associated with physical rebids will often be able to be met with existing staff level. Rebids arising from most changes to physical capability will relate to a single readily recorded event that is already recorded in logs. However, at the most critical and commercially sensitive times, existing staff are likely to be overwhelmed by the requirement to report on a complex situation that may have emerged over a number of hours.

D Background to the rule change request

This chapter sets out relevant background and provides context in which to assess the issues raised in the rule change request.

D.1 Rebidding in the NEM

Participation in the National Electricity Market (NEM) requires that generators submit bids to the Australian Energy Market Operator (AEMO) specifying the minimum price they are willing to receive for generation capacity offered. Bids allow generators to specify a range of prices for different levels of generation output. Initial bids must be submitted to AEMO by 12:30pm for the following day and must set out the quantity of generation offered in up to ten price bands for all 48 half-hour trading intervals.

Following the submission of initial bids, generators may shift capacity between price bands through a process known as rebidding. Rebidding provides flexibility for generators to respond to shifting market conditions, such as changes in demand, plant availability, or network constraints, and provides a mechanism for the wholesale price of electricity to more accurately reflect the balance of supply and demand at the time of dispatch.

Rebidding can be undertaken at any time following the submission of the initial bid up until the relevant five-minute dispatch interval. The only timing constraint on the submission of rebids is a practical limitation of approximately three or four minutes for rebids to be incorporated in the NEM dispatch process and reflected in the dispatch merit order.

While the ability to make rebids until just before the time of dispatch means that the latest market conditions can be reflected in dispatch outcomes, it also reduces the certainty and predictability that participants have regarding expected price outcomes. This is particularly important for market participants that require a period of time to respond due to operational and technical limitations, such as peaking generators or large industrial loads wishing to curtail electricity consumption.

The ability for generators to make rebids means that forecasts of price outcomes prior to dispatch are almost certain to be different in some way to actual price outcomes. The earlier in time that price forecasts are made, the greater the interim period for generators to make rebids and therefore the more likely the eventual price outcomes will be different.

There is therefore a trade-off that exists with regard to the certainty and predictability of pre-dispatch forecasts and the flexibility of the market to respond to changing market conditions. As such, the rules governing rebidding represent a compromise that aims to achieve the most efficient market outcomes in the interests of consumers.

D.2 History of the rebidding rules

The rules for rebidding were authorised by the Australian Competition and Consumer Commission (ACCC) as part of the original authorisation of the National Electricity

Code 1997 (the Code).¹⁸⁸ At the time of authorisation, it was noted that the ability of the wholesale arrangements to deliver benefits was dependent on two features – the industry structure established in participating jurisdictions and the design and implementation of the National Electricity Code. It was considered that these two features would have important implications for the development of effective wholesale competition in the NEM and consequently for the public benefits stemming from reforms.

While recognising that the Code arrangements had the potential to result in greater efficiencies and lower costs to consumers, the ACCC also recognised that there were features of the Code that could act to offset the anticipated public benefits. One of these features was the provisions in the Code that allowed generators to submit rebids to make changes to their offered generation capacity after their initial bids had been submitted. At the time, the ACCC recognised that allowing rebidding was likely to result in efficiency benefits but that it might also be used to manipulate spot price outcomes.

Both the National Electricity Code Administrator (NECA) and the ACCC were of the view that rebidding in response to physical conditions, including forced outages, is essential to the operation of the market, and also that rebidding for non-physical reasons, including to reflect participants' dynamic contractual positions and in response to rebids made by other participants, is also important for the efficient and effective operation of the market.

However, it was also noted that the design of the rebidding provisions permitted generator bidding behaviour that may give rise to inefficient market outcomes. The ACCC specifically noted that rebidding up until the time of dispatch creates a situation whereby generators are able to “manipulate spot prices in a time frame within which market customers and some other generators cannot respond”. The ACCC noted that while such activity may not contravene the *Trade Practices Act 1974* (TPA), it could significantly detract from the potential public benefits of the market arrangements.

In the draft determination for the original authorisation, the ACCC proposed to impose a prohibition on all rebidding within three trading intervals prior to dispatch.¹⁸⁹ These restrictions were based on concerns that the rebidding rules would provide generators with a number of avenues through which to game the market, and could therefore contribute to anti-competitive market outcomes.

Ultimately, the ACCC decided against imposing restrictions on rebidding, arguing that this may introduce distortions in the market and impose additional costs on market participants. Instead, the ACCC emphasised the importance of market monitoring and introduced a requirement for NECA to prepare a report every three months to identify and review all instances where actual prices that eventuated in the spot market were significantly different from prices that had been forecast. At the time of its determination, the ACCC suggested that the information accumulated by the market monitoring would drive possible market reforms into the future, and where

¹⁸⁸ ACCC, *Applications for authorisation – National Electricity Code*, 10 December 1997.

¹⁸⁹ ACCC, *Amendments to the National Electricity Code – Changes to bidding and rebidding rules*, 4 December 2002, p. 5.

anti-competitive behaviour is apparent the Commission would act to get the market design or arrangements altered to prohibit such behaviour.

In support of NECA's market monitoring role, the ACCC determined in 2000 to require participants to provide reasons for any rebid made and allow for these reasons to be published by the National Electricity Market Management Company (NEMMCO).¹⁹⁰ The determination required that market participants provide, at the same time as a rebid is made:

- a brief, verifiable and specific reason for the rebid; and
- the time at which the event(s) or other occurrence(s) adduced by the market participant as the reason for the rebid occurred.

The ACCC considered that information regarding the underlying reasons for rebidding may be a valuable tool in the market analysis of bidding behaviour and would be likely to enhance NECA's market monitoring role. The ACCC also considered that the effectiveness of market monitoring and information gathering would be greatest where there is the greatest degree of transparency, and that transparency would increase the accountability of market participants.

D.3 The good faith provisions

The good faith bidding provisions were incorporated into the National Electricity Code in 2002 by the ACCC.¹⁹¹ The changes were made to the Code following the submission of applications by the NECA under Part VII of the TPA.¹⁹²

NECA's application to insert the good faith provisions followed expressions from NEM Ministers that they opposed generator bidding strategies that were inconsistent with an efficient, competitive and reliable market, such as those not made in good faith, the "blatant" economic withdrawal of generation, and the gaming of technical constraints.¹⁹³

The changes introduced clause 3.8.22A to the NER which provides that all market participants must make rebids in good faith. A rebid is taken to be made in good faith if, at the time of making the rebid, the market participant has a genuine intention to honour that rebid if the material conditions and circumstances upon which the rebid was based remain unchanged until the relevant dispatch interval.¹⁹⁴ A breach of clause 3.8.22A attracts a maximum civil penalty of \$1 million.

¹⁹⁰ ACCC, *Applications for authorisation – Amendments to the National Electricity Code (rebidding, VoLL scaling and settlements statements)*, 6 December 2000, pp. 5-9.

¹⁹¹ The ACCC's responsibility for authorising changes to the Code reflects earlier regulatory arrangements in the NEM. The provisions contained in the Code were transferred to the NER at its inception in July 2005. The AEMC has responsibility for administering and determining changes to the NER.

¹⁹² ACCC, *Amendments to the National Electricity Code – Changes to bidding and rebidding rules*, 4 December 2002.

¹⁹³ The acting South Australian Minister for Energy noted this in a letter to the ACCC dated 6 September 2002, www.registers.accc.gov.au.

¹⁹⁴ The good faith bidding provisions were initially incorporated in the Code and were transferred at the inception of the NER in July 2005.

NECA's application to the ACCC for authorisation to change the Code was based on its view that the changes would:¹⁹⁵

- improve the reliability of pre-dispatch forecast prices in each dispatch interval, which would assist generators to plan the operation of their plant; and
- address aspects of generator's bidding and rebidding strategies that were of concern, and that were claimed to have been the cause of short-term price spikes experienced in the NEM.

Specifically, NECA proposed that the changes to the Code would alleviate:

- instances where rebids were made too close to the relevant dispatch interval for a competitive demand-side response, in particular where rebids were made in response to information or events about which the relevant parties had significant prior knowledge; and
- instances where rebids led to significant price volatility in response to relatively small changes in demand.

In authorising changes to the Code, the ACCC noted that restrictions on the ability to rebid, or the imposition of incentives not to rebid, could lead to less efficient outcomes and potentially higher prices, as compliance costs were recouped through generators' offers. Restrictions could result in less competitive price outcomes leading to inefficient dispatch of generation. However, the ACCC noted that the good faith bidding proposal did not constitute a restriction on rebidding as it only required that generators' offers must be honoured should all circumstances remain unchanged and did not limit or restrict generators' bidding strategies.

D.4 The Federal Court case - AER v Stanwell

The first and only judicial consideration of the obligation on a generator to make bids or rebids in good faith in the NEM was the decision of Justice Dowsett in the Federal Court in *Australian Energy Regulator v Stanwell Corporation Limited*.¹⁹⁶ The Court dismissed the AER's application that Stanwell had breached clause 3.8.22A of the NER.

The AER alleged that on 22 and 23 February 2008, traders at Stanwell made a number of rebids that were not made in good faith. The AER claimed that the rebids were not made in good faith because, in each case, they were made with the intention that if the dispatch price did not rise sufficiently as a result of the rebid, Stanwell would make a further rebid for the relevant trading interval. In the AER's view, the rebids were not accompanied by an intention that they would be honoured absent a change in material conditions and circumstances.

The AER argued that the reference to material conditions and circumstances in clause 3.8.22A(b) of the NER meant that a rebid is not made in good faith if it is based on objective conditions and circumstances for which there is not a material change. The AER noted that over the period of two days, there were eight separate rebids made by

¹⁹⁵ ACCC, Amendments to the National Electricity Code – Changes to bidding and rebidding rules, 4 December 2002, p. 1.

¹⁹⁶ *Australian Energy Regulator v Stanwell Corporation Limited* [2011] FCA 991, 30 August 2011.

traders at Stanwell that did not result in a material change in dispatch price and that subsequent rebids for the same trading interval demonstrated that the original bids were not made in good faith.

In arriving at his decision, Justice Dowsett noted that all relevant conditions and circumstances upon which a rebid is based should be taken into account rather than focusing on individual elements. His Honour found that a trader's subjective expectations could be part of the material conditions and circumstances upon which a rebid could be based. As such, the non-fulfilment of the trader's subjective expectation could be considered as lawful justification for another rebid.

Justice Dowsett accepted the position put forward by Stanwell that a rebid could be considered to be made in good faith if it reflected the trader's intentions of what they were prepared to dispatch at the time of making the rebid. The Court noted that the fact that a trader had in his or her mind the possibility of making a further rebid, if their expectations were not met, did not make the initial bid one which was not made in good faith, and that a subsequent rebid for the same trading interval did not automatically infer that the trader did not intend to honour the first rebid.

Ultimately, his Honour found that in order to establish a breach of the good faith provisions the AER had to demonstrate that a trader did not have a genuine intention that a rebid be honoured for the dispatch intervals to which it related, at the time that it was made, absent a change in material conditions and circumstances.

E Regulations in overseas jurisdictions

This appendix summarises the comparative assessment of rules governing generator rebidding in international markets undertaken by the Competition Economists Group (CEG)¹⁹⁷. The purpose of the analysis was to assist the AEMC to identify potential options to address the issues raised by the rule change request.

Insight might be gained from looking at the design of behavioural regulations in overseas jurisdictions. In doing so however, it must be recognised that regulations in overseas jurisdictions have developed around the specific designs of those markets, and that behavioural conduct provisions in other areas of Australian law have been developed to regulate specific market behaviours and will have a body of jurisprudence developed about the legal meaning of those provisions.

E.1 Behavioural standards of conduct

In its review, CEG observed that all of the markets it surveyed were found to have some mechanism or rule to provide for bids that are meaningful at the time they are made. Real-time energy-only markets surveyed – including Alberta, Singapore and New Zealand – are similar to the NEM in that they contain provisions that govern generator bidding behaviour to ensure that bids reflect a genuine intention of generators to supply at the submitted price. These markets rely on the efficiency of price signals in real time to drive the efficiency of investments.

These regulatory jurisdictions share a number of general features of market governance of electricity markets:

- Each jurisdiction has introduced ‘liberalised’, or market-based arrangements, for wholesale electricity transactions over the past two decades. Each jurisdiction has established a form of organised market for wholesale electricity exchange transactions.
- The wholesale electricity markets in these countries all operate under an umbrella of general competition law which prohibits abuse of market power and price fixing (that is, they operate under similar trade practices regimes to the CCA).
- All jurisdictions have seen the development of wholesale electricity markets that involve overlapping regulatory authorities as well as cross jurisdiction trading, and hence potentially overlapping rules on market behaviour.
- As with established exchanges for other commodities and derivatives, all contain rules on trader conduct, market behaviour and orderly markets, in addition to the generic competition statutes.

In Alberta, the wholesale market is regulated by various provincial rules and regulations which include the ISO rules and the Electric Utilities Act (EUA).¹⁹⁸ Conduct that seeks to increase profits by weakening or eliminating competition may lead to an investigation and enforcement action if it is considered to be systematic in

¹⁹⁷ The Competition Economists Group, *International review of rebidding activity and regulation*, December 2014.

¹⁹⁸ *Ibid*, p. 21.

nature. This includes conduct which ‘enhances the effect of a unilateral offer strategy by engaging in transactions where the primary purpose is to reduce the response from competitors to customers’. The Market Surveillance Administrator (MSA) refers to this as “extension” and notes that the conduct must be done with the “primary purpose” of inhibiting a competitive response.

The Singapore Electricity Act prohibits actions which aim to or have the 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.¹⁹⁹

The New Zealand electricity market has recently seen the introduction of trading conduct provisions with ‘safe harbour’ principles.²⁰⁰ The amendment requires generators to observe a high standard of trading conduct. While there is no definition of a ‘high standard of trading conduct’, compliance with the three ‘safe harbour’ provisions will mean automatic compliance with the requirement. The three ‘safe harbours’ require that a generator offers all of its available capacity, that it revises its offers in a timely manner after receiving information that triggers the revision, and that 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 the trading arrangements in the electricity market in France are substantially different to the NEM, CEG investigated the recent introduction of the European Union regulation on wholesale energy market integrity and transparency (REMIT), which prohibits insider trading and market manipulation in wholesale energy markets and establishes a monitoring regime for wholesale energy trades. The development of these prohibitions was based on criminal offences that already exist in financial markets around market manipulation and insider trading. As such, the REMIT regulations act to bridge the gap between the existing regulations of conduct in financial markets and the trade of physical products on wholesale gas and electricity markets. REMIT has been in force in wholesale energy markets across the EU since 28 December 2011.

Under the REMIT regulations, attempts to manipulate the wholesale market include:

- transactions which give, or are likely to give, misleading signals as to the supply of, demand for, or price of wholesale energy, or attempts to secure the price at an artificial level;
- transactions which employ or attempt to employ a fictitious device, or other form of deception or contrivance, which is likely to give misleading signals; and
- dissemination of information which gives, or is likely to give, misleading signals, where participants knew, or reasonably should have known, that the information was misleading.

¹⁹⁹ Ibid, p. 40.

²⁰⁰ Ibid, pp. 45-48.

The UK Department of Energy & Climate Change (DECC) has recently published a consultation paper on the introduction of REMIT to the UK energy markets.²⁰¹ In the implementation of REMIT, DECC considers that a fault element for market manipulation would be necessary to ensure proportionality in applying sanctions and as a marker that the behaviour is truly blameworthy.²⁰² The prohibited activities for market manipulation would have to be conducted either intentionally or recklessly. DECC considers that only targeting intentional behaviour would be insufficient, as it would fail to adequately capture some of the damaging behaviours that could distort a market undertaken by those who know that their activity may have such an effect.

Similar to the development of the REMIT regulations, section 222 of the US Federal Power Act draws upon terms used in the regulation of financial markets to regulate market manipulation in the trade of physical energy.²⁰³ Section 222 prohibits an entity, directly or indirectly, from employing any manipulative or deceptive device or contrivance in connections with the purchase or sale of electric energy.

FERC has recently undertaken a number of enforcement actions for alleged breaches of section 222 of the US Federal Power Act.²⁰⁴ In July 2013, FERC found Barclays to have manipulated energy markets in California by engaging in trades that were not consistent with supply and demand conditions in the market. In mid-2013, FERC approved a form of settlement agreement with JP Morgan. FERC found that JP Morgan had engaged in fraudulent bidding behaviour that allowed it to achieve above market prices for supplying energy. JP Morgan was accused of employing a number of bidding strategies that were designed to create artificial conditions that forced the Independent System Operator (ISO) to pay JP Morgan outside the market at premium rates.

E.2 Gate closure

CEG made some general observations through its survey of overseas jurisdictions, including:²⁰⁵

- all markets surveyed recognise the importance of having credible and meaningful bids submitted as early as possible to allow for accurate pre-dispatch forecasting and to provide certainty and predictability to those participants that may wish to respond through the demand side; however
- it is equally recognised that the ability to change market offers close to the time of dispatch allows for price outcomes that more closely reflect market conditions at the time of dispatch.

All markets surveyed impose a gate closure period after which rebidding is not allowed or limited to certain circumstances. Markets recognise the trade-off that exists between the market certainty provided through an early gate closure and giving market

201 UK Department of Energy & Climate Change, *Strengthening the regulation of wholesale energy markets through new criminal offences*, August 2014, pp. 7-8.

202 Ibid, p. 25.

203 The Competition Economists Group, *International review of rebidding activity and regulation*, December 2014, pp. 83-87.

204 Ibid, pp. 87-88.

205 Ibid, p. 5.

participants time to respond to changing market conditions. There is a recognition that gate closure does not remove the potential for late rebidding, as it simply moves the deadline for rebids to be submitted earlier, but that it does provide a longer period of notice for the demand side to respond to high market prices. Table E.1 sets out the current gate closure restrictions applied in the jurisdictions surveyed by CEG.

Table E.1 Gate closure restrictions in overseas jurisdictions

Jurisdiction	Gate closure restrictions	Gate closure timing	Market price cap
Alberta, Canada	Volume changes may be made after gate closure but only for “acceptable operational reasons”	Two hours before settlement interval	C\$999.99/MWh
Singapore	Offers may be changed after gate closure for operational reasons but are subject to market surveillance investigation	65 minutes before dispatch	S\$4,500/MWh
	No rebids allowed	Five minutes before dispatch ²⁰⁶	
New Zealand	Changes to bids or offers after gate closure must be for a genuine physical reason	Two hours prior to the trading interval	No explicit cap, however a scarcity pricing mechanism provides an effective cap of NZ\$20,000/MWh
France	No changes to offers permitted	45 minutes before delivery	€3,000/MWh
Texas (ERCOT)	No changes to offers permitted	One hour before the operating hour	US\$7,000/MWh. If recovery in a year is high then price cap may be reduced to US\$2,000/MWh
PJM	Offers are locked in subject to transmission security constraints, reserve requirements and generator unit availability	6pm the day before	US\$1,000/MWh. A shortage pricing mechanism allows the price cap to rise to US\$2,700/MWh

In the Singapore NEMS, offer variations are not to be submitted within 65 minutes of dispatch, except where it is intended to:²⁰⁷

²⁰⁶ In Singapore, dispatch quantities are calculated for each half-hour trading period.

- reflect expected ramp rate profiles during periods following synchronisation or preceding desynchronisation;
- reflect revised capability during a forced outage; or
- contribute positively to the resolution of a system energy surplus or shortfall situation.

The New Zealand Energy Authority also imposes restrictions on rebids close to dispatch.²⁰⁸ The New Zealand electricity rules stipulate that rebids may only be permitted within two hours of dispatch if they relate to a genuine physical reason or if the system operator has issued a formal notice of a grid emergency. In Alberta, generators may change their offered volumes after gate closure only if it relates to an acceptable operational reason, including the safety of the generating asset or public, the repositioning of the asset to serve the stand-by operating reserves market, or to manage physical or operational constraints or an occurrence of force majeure.²⁰⁹

In all of the observed markets, rebids that fall outside of the permitted categories are still incorporated by the market operator into the determination of market dispatch. However, the relevant authority may review all rebids that it suspects may not have complied and may request additional information from the rebidding generator in order to substantiate the reasons provided for the late rebid. Offer variations after gate closure made under circumstances falling outside the defined exceptions are considered rule breaches and enforcement action may be taken. Penalties may be imposed in circumstances where it is considered that the additional information provided does not sufficiently justify the rebid.

Experience obtained from enforcing the gate closure period in Singapore has led the Energy Market Company to conclude that it is "imperative that the rules set out the forms of offer changes permissible after gate closure so as to minimise gaming opportunities".²¹⁰

207 The Competition Economists Group, *International review of rebidding activity and regulation*, December 2014, pp. 32-33.

208 Ibid, p. 44.

209 Ibid, p. 16.

210 Ibid, p. 33.

F Summary of issues raised in submissions on the Consultation Paper

Stakeholder	Comment	AEMC response
Late rebidding		
SACOSS	When rebidding is both late and strategic it undermines the consumer interest. (p. 6)	The market inefficiencies caused by deliberate late rebidding are set out in section 3.2.3.
Arrow Energy	Strategic late rebidding may generate higher wholesale spot prices, reduce the predictability of spot price outcomes and can impact the ability of unscheduled load and generation participating in the market. (p. 4)	
CS Energy	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. With each dispatch interval, trading interval, hour, day or season there will be some topsy-turvy 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. (p. 5)	The Commission considers that some instances of late rebidding by generators can prevent other market participants from acting on their learnings and skew the market towards outcomes that are more favourable for those generators that are online and regularly being dispatched. The technology and operational cost characteristics of different generators mean that certain generators are more often online than others. As such, bidding behaviour by these generators can entrench market outcomes that are more in line with their commercial interests. Over the long-term, the purpose of the market as a mechanism to encourage efficient investment may be undermined. See section 3.2.3.
GDF Suez	The level of competition in the market is such that strategic late rebidding should not be regarded as a problem that needs to be fixed. If a participant is seen by the market to be achieving an advantage due to a late rebidding strategy, then other market participants will inevitably adopt a similar strategy, or one that is intended to undermine the late rebidder. In any case, any strategic advantage gained by a strategic late rebidder will only persist for a single 5 minute dispatch interval, as the market will re-adjust with potential new bids for the subsequent dispatch interval. Any strategic advantage gained will therefore be fleeting in nature, and does	

Stakeholder	Comment	AEMC response
	not pose a fundamental issue for the market. Late rebidding is an inevitable consequence of a dynamic and volatile market and is evidence of a healthy efficient normal energy only market responding to price signals. Placing artificial restrictions on this would lead to inefficiencies in the NEM, and ultimately, higher costs to consumers. (p. 2)	
Alinta Energy	Each dispatch interval feeds into a relevant trading interval, hourly experience, day, month, years and so on. Market participants respond and take action and manage risks in response to this learned experience. Traders' experiences and management team expertise is used to respond to evolving market conditions in a dynamic fashion. Thus, any limits on the ability to respond are likely to impede efficiency. Therefore, if strategic late bidding is the primary issue raised by the proposal there is no justification to proceed with the proposal. (p. 5)	
ERM Power	Implementing a deliberate strategy to avoid a market response by not rebidding until the last possible moment would not be 'acting in good faith'. If not already a breach of the rules of Competition and Consumer Act, would consider supporting an alternative rule change that made this requirement clear. (p. 1)	The Commission has concerns with the effectiveness of the existing good faith provisions in addressing deliberate late rebidding. The assessment of whether an offer or rebid is made in good faith is only based on the generator's intentions at the time the offer or rebid is submitted. A generator may have a genuine intention to honour its initial bid and equally may have a genuine intention to honour its subsequent late rebid. As long as there is a genuine intention to honour the offer or rebid at the time it is made, the obligations of the good faith provisions are satisfied. See section 4.1.
InterGen	The NEM is workably competitive and there is no evidence that rebidding has led to, or likely to lead to, sustained wholesale prices above the long run marginal cost of new investment. On this basis, deliberate late rebidding has had no systemic impact on the market and can be considered an irrelevant issue. (p. 4)	The Commission considers that transient pricing power should only be of concern if it occurs frequently enough and to a sufficient magnitude that average prices are sustained above new entrant LRMC for a period of time. However, the Commission does not consider that this definition of transient pricing power can

Stakeholder	Comment	AEMC response
		be applied to late rebidding. See section 3.3.3.
EnerNOC	It is often argued that any reforms which will act to reduce price volatility are hence damaging to the efficient operation of the market. This is not the case with deliberate late rebidding, because the price excursions are not providing any useful investment signal. This is because deliberate late rebidding is typically employed at times of low prices, when peaking resources are not needed and hence not running. When a price spike occurs, the peaking resources that are not running do not benefit. Some peaking resources may be dispatched in response to the price spike, but their required start-up times usually result in them having no effect on price in the relevant interval, and earning no revenue from it. (p. 2)	The Commission considers that the price impacts from late rebidding cannot be considered as an efficient price signal for investment because they can have the effect of precluding the occurrence of a competitive demand or supply side response in the short term. See section 3.3.3.
GreenSync	We have for some time now harboured concerns about suspect behaviour in the NEM, with the occasional inexplicable price shift leading us to question whether participants are complying with the good faith provisions. While the 2011 case of AER v Stanwell brought this issue to light, we believe this was not an isolated case and question whether strategic re-bidding is more widespread than is currently being acknowledged. In light of the Federal Court's ruling in favour of Stanwell, GreenSync accepts that a stronger framework to resolve apparent uncertainty about the interpretation and application of the provisions is required, whether by a rule change or by strengthening the enforcement of the existing provisions. We believe a strong deterrent with significant consequences is required to send the message that market manipulation is not acceptable within the NEM. The harsh penalties that insider trading attracts for wilful wrongdoing in financial markets is a relevant comparison to the misconduct of energy market participants. (p. 1)	The Commission considers that these issues indicate that the current rules are not adequately setting reasonable boundaries on the ability of participants to influence price outcomes to the detriment of other participants in a way that is not reflective of an efficient market, although it does note that these have not manifested until recently or in all regions of the NEM. The Commission has consequently decided to make a draft rule that would address the deficiencies in the current market framework, while remaining proportionate to the materiality of the issues.
5-minute dispatch and 30-minute settlement		
SACOSS	The 5/30 arrangement can provide a clear incentive for rebidding that is both late and strategic. (p. 6)	The Commission considers that the incentives to engage in late rebidding are further exacerbated by the design of the NEM bidding process and trading arrangements. See section 3.1.2.
Arrow Energy	The NEM trading arrangements of five-minute dispatch and 30-minute settlement may create a dynamic that gives greater effect to late strategic bidding. The 30-	

Stakeholder	Comment	AEMC response
	<p>minute settlement does however assist in providing a “smoothing” of volatility. If settlement was on a five minutes basis it may create greater volatility in periods of true market events (forced outages or short sharp demand spikes) and even fewer generators would be able to react. Arrow believes that even though this issue potentially contributes to the dynamics of late strategic rebidding, dispatch periods and settlement periods should not be changed to attempt to manage rebidding behaviours. (p. 4)</p>	
CS Energy	<p>The five-minute dispatch and 30-minute settlement are not particularly relevant to the issue of late strategic rebidding. It is a separate question. What is more important is the timing of the closure of the auction and how often the auction can be repeated. (p. 7)</p>	
GDF Suez	<p>Although it is likely that the five-minute / 30-minute issue contributes to an increase in the number of occasions that late strategic rebidding might occur, GDFSAE would be cautious about any suggested move to resolve the five-minute / 30-minute issue. Previous consideration of this issue has concluded that the costs of moving to 5 minutes settlement would likely outweigh any benefit to arise, and may create new issues for fast start plant. (p. 3)</p>	
Alinta Energy	<p>While in a world where implementation costs could be ignored resolution of 5/30 may be justifiable, as it currently stands, and having reviewed previous work on the 5/30 issue, there does not seem to be a strong case to move away from 5/30 at this time. This is partly informed by the view that expectations around the market behaviour in a world where 5/30 does not exist are not well developed and imply markedly different incentives on participants than is currently the case. As it stands, Alinta Energy does not consider 5/30 to be a significant factor in strategic bidding as participants retain an incentive to generate in the face of constraints and transmission outages, and to defend contract positions, and respond to generator activity both inside and outside of an individual trading interval. Alinta Energy is open to further investigation of 5/30 issues including analysis of the whether 5/30 has a material impact on market efficiency but does not support</p>	

Stakeholder	Comment	AEMC response
	change at this time. (p. 7)	
EnerNOC	The 5/30 arrangement exacerbates the problem by allowing late strategic rebids to set prices for a longer period without other participants having any opportunity to respond. For customers to respond to a price signal, they have to be aware of it. It is hard to think of any other commodity for which the consumer is only told the price after they have consumed; such a practice could be expected to provoke outrage. (p. 6)	
The proposed rule		
Arrow Energy	Opposes the proposed rule change in light of what seems to be a disproportionate response to a select number of events, and suggests that little, if any, market benefit is achieved whilst introducing significant uncertainty for generators. Arrow regards the 'Bidding in good faith' provisions as a very strong obligation and treats this as a very serious compliance matter. (p. 3)	The Commission's draft rule adopts a number of elements of the rule proposed by the South Australian Minister for Mineral Resources and Energy, in particular the requirement that rebids should be made as soon as practicable after a change in a generator's intention. However, the Commission has not adopted the proposals in the rule change request to cast the good faith provisions in the negative or to exclude the non-fulfilment of subjective expectations as a change in material circumstances that could justify a rebid or further rebid. See section 4.5.2.
Alinta Energy	The rule change does not provide any benefit to the market or consumers in terms of economic efficiency and has been poorly justified by the South Australian Government. It is unfortunate that the proposal has made it this far given these issues have been previously addressed and a general understanding that the rule does not promote economic efficiency and in fact is likely to have the opposite impact. For the purposes of this rule proposal the assessment criteria is the National Electricity Objective not the South Australian Government's subjective interpretation of the intent of the initial changes to the National Electricity Code. (p. 2)	
NGF	Since the introduction of the good faith bidding requirements in 2002, a number of additional and updated provisions have been introduced which are not recognised in the South Australian Governments rule change proposal. Generator rebidding compliance has been of a high standard and continues to improve through sensible, meaningful consultation with Regulators. This is highlighted by the fact that in the 12 years of good faith bidding there has only been one court action and 9 fines issued despite an enormous number of rebids and a significant number of AER	

Stakeholder	Comment	AEMC response
	requests for additional information. (p. 4)	
Recasting the good faith provisions in the negative		
SACOSS	The NEM, now 15 years old, has matured to the point where participants (especially those with the capacity to influence pricing through their behaviour) can be reasonably expected to accept the onus of proof. (p. 6)	The Commission considers that recasting the current provisions in the negative would increase the regulatory burden on participants and could also raise the possibility that a generator may be found to have breached the good faith requirement because it failed to keep satisfactory records and to provide them to any proceeding, despite the fact that it may have actually had a genuine intention honour its bid. See section 4.5.2.
Arrow Energy	This proposal is made without going to the heart of the uncertainty around what is considered to be material change and what constitutes 'sufficient' proof, but rather merely shifts the obligation of proof to the generator to prove to the AER's satisfaction before action is taken. The proposed rule change places undue obligation on generators to substantiate good faith without providing further context or definition to what is considered to be 'material circumstances' or 'sufficient' proof. The associated vagueness as to what is considered 'sufficient proof' will create compliance uncertainty for all generators across all rebids and will result in significant increased burden. Prevailing conditions and circumstances underpinning rebids are diverse and complex and the materiality is subject to the specifics for each participant. Describing the elements that were incorporated into the considerations and the commensurate materiality should not be limited for this reason. (pp. 2-3)	
CS Energy	The cost 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. For a trader to be exposed to a \$1m penalty because they failed to record the material condition and circumstances and the resultant change is unreasonable. (p. 8)	
ERM Power	The proposal to reverse the onus of proof is inconsistent with the code objective of light hand regulation and is of fundamental concern when reviewed in the context of Australian Law. (p. 1)	
GDF Suez	Whether the South Australian Government intended for the change to constitute a reversal of the onus of proof or not, the proposed change would recast the good	

Stakeholder	Comment	AEMC response
	<p>faith bidding provisions in the negative, such that a generator rebid is not regarded as having been made in good faith, unless at the time, the generator has a genuine intention to honour that bid. Expressing the Rule in the negative effectively reverses the onus of proof, and creates a very poor precedent of 'guilty until proven innocent'. This is contrary to the principles of natural justice, and should therefore be vigorously opposed. The points made by the ACCC in rejecting the 2002 proposal for a reversal of the onus of proof are still valid today. (p. 3)</p>	
Alinta Energy	<p>Alinta Energy acknowledges the view of the South Australian Government that the proposal does not create a reverse onus of proof; however, any affected participant, on reading the proposal, would conclude otherwise. The semantics of the proposal aside, the implication is that traders' bids will be inferred to not be in good faith unless the market participant can prove otherwise. This is an unacceptable proposal. This proposal does not improve market efficiency but presents itself as a legal exercise to increase opportunities to ensnare market participants. The result will be a legal battle over whether or not the information presented is material enough in the mind of the AER. A subjective assessment from a party not exposed to the market over the view of market participants seeking to manage risk and generate revenue. The proposal is regressive and should not proceed. (p. 3)</p>	
InterGen	<p>To meet this obligation, generators would necessarily need to compile extensive support material at the time of each rebid. This creates an onerous obligation at significant cost and may lead to more conservative rebidding to the detriment of market efficiency. (p. 3)</p>	
EnerNOC	<p>Supports. However, a better balance between the effectiveness of the regulation and the compliance burden could be achieved by applying a progressively higher burden of proof to participants as the time of dispatch nears. To put it another way, there is no need to apply such heavy scrutiny to bids that are submitted well in advance of the trading interval they affect, as all other participants (including consumers) are free to respond to those. However, we are sceptical about the potential to regulate rebidding in this</p>	<p>The Commission considers that rebids submitted close to dispatch have a disproportionately higher likelihood of resulting in inefficient market outcomes. As such, the draft rule would introduce a new reporting requirement for rebids made close to dispatch. See section 5.4.2</p>

Stakeholder	Comment	AEMC response
	<p>way. In the NEM, there seems to be no clearly defined line between legitimate bidding strategies that participants can pursue to maximise returns and what should be considered to be gaming. Experience shows that, wherever there is any kind of ambiguity, the highly creative, intelligent, and motivated traders will push at the boundaries, making consistent monitoring and enforcement extremely challenging and resource intensive. As a result, it is better to minimise the need for regulation by getting the structure right so that opportunities and rewards for gaming are minimised. (p. 8)</p>	
Provision of complete and accurate information to the AER		
QGC	<p>Concerned if participants are not providing complete information to AER requests. The AER's ability to question the activities of market participants is a key inquiry channel regarding market events and possible non-compliance with the rules. We support considering improvements to this process. (p. 4)</p>	<p>The Commission considers that one opportunity to provide all relevant information to the AER which may subsequently be put to judicial scrutiny is likely to impose a significant burden on market participants, which may lead to more conservative bidding and inhibit the discovery of efficient price outcomes. The Commission agrees with stakeholders that such a requirement may be overly restrictive on generators, particularly if the obligation is applied at all times. See section 5.4.2.</p>
Government of South Australia	<p>It is expected that participants should already be keeping records of the reasons for submitting rebids. The intent is not to require participants to significantly change existing practices relating to the information they keep. Rather it is to ensure that the AER is provided with accurate information and justification relating to any rebids. It is not appropriate for a participant to use reasons to justify its bidding and rebidding at a later date, for example during court proceedings, which were not provided to the AER during the investigation stage. (p. 2)</p>	
CS Energy	<p>Any error to record the reason for changing an offer could be used to infer a lack of good faith, with the possibility of significant penalties. (p. 8)</p>	
Alinta Energy	<p>The problematic nature of the proposal is exacerbated by the strict information provision criterion which attempts to limit the ability of the court to decide upon what, if any, additional information may be relevant to the proceedings or the ability of parties to furnish additional information during proceedings. (p. 3)</p>	
SACOSS	<p>The notion that this, "... raises the possibility that a generator may be found to have breached the bidding in good faith</p>	

Stakeholder	Comment	AEMC response
	<p>provisions simply because it failed to provide satisfactory records, despite the fact that it may actually have had a genuine intention to honour its bid” is to ignore the sophisticated trading capabilities and market knowledge of these participants. Current market participants are highly informed, savvy, sophisticated, vertically integrated profit maximisers with the capability, incentives and shareholder obligations to identify and exploit opportunities to maximise returns. (p. 6)</p>	
InterGen	<p>The effect of this requirement is that when requested, generators have only a once off ability to supply relevant information to the AER. To meet this obligation, generators would necessarily need to compile extensive support material at the time of each rebid. This creates an onerous obligation at significant cost and may lead to more conservative rebidding to the detriment of market efficiency. (pp. 2-3)</p>	
Origin Energy	<p>Requiring traders to compile and keep records of complete information and data for all existing material circumstances about which a rebids may be made imposes a significant compliance burden on generators. Complying with these requirements could increase the time required to submit a rebid potentially leading to sub-optimal spot market outcomes. In addition, generators may adopt more conservative bidding strategies to minimise rebidding. Costs associated with sub-optimal spot market outcomes and higher compliance costs will be reflected in the contract market and ultimately consumers will bear the cost. (pp. 6-7)</p>	
EnergyAustralia	<p>Would constrain the ability to bid with confidence as every trading team and trader must document each and every offer and rebid to a standard that will stand up to later judicial scrutiny, regardless of the state of the market. The proposal would impose unconscionable stress on individual traders and the trading team. (pp. 3-4)</p>	
AER	<p>Consistent with current best practice, we would expect participants to already be keeping complete records of the reason for submitting rebids, to ensure they comply with the current requirements of the good faith provisions, including clause 3.8.22</p>	

Stakeholder	Comment	AEMC response
	<p>(the brief verifiable and specific reasons obligation) and the Good Faith provision as currently drafted. The AER does not consider that the proposed requirement to only make a variation in quantity across price bands in response to a significant and quantifiable change should increase the burden on participants in terms of record keeping. (p. 11)</p> <p>Would assist with the problem where the trader's testimony in court is not entirely consistent with previous information provided through formal information requirements, including information gathering powers under section 28 of the NEL. (p. 12)</p>	
GDF Suez	<p>If there is a view that the requirement for information to accompany rebidding needs to be improved, GDF suggests that this be done separate to and distinct from the good faith bidding requirement. This would ensure that the "last resort" good faith bidding safety net could remain in place, with the existing very high penalty. (pp. 3-4)</p>	<p>The Commission sees benefits in the provision of additional information to the AER, specifically for rebids that occur close to dispatch, which have a disproportionately higher probability of resulting in inefficient market outcomes. See section 5.4.2.</p>
NGF	<p>There is no evidence that the existing regulator powers are insufficient, or that the Federal Court decision of 2011 creates additional uncertainty regarding good faith bidding. The existing powers under Section 28 of the NEL already provide the Regulator with comprehensive investigatory and information gathering powers. The NGF does not consider that a single unsuccessful prosecution implies that there is a problem as indicated by the South Australian Government. In this context, proposals to force market participants to give the AER a complete account of their reasons for rebidding prior to an allegation of wrongdoing are unnecessary, and risk putting market participants in a position where compliance with the law will be a practical impossibility. (p. 8)</p> <p>The current arrangements represent a pragmatic approach by all Participants whereby the Regulator requests additional information which is then duly provided by rebidding Participants. Should this information not fully satisfy the Regulator, a further request is issued and additional qualifying information can be provided by the Participant. Under this regime a large number of rebids are investigated and found to be compliant based on sufficient</p>	

Stakeholder	Comment	AEMC response
	but not necessarily “complete” information. The proposed rule change would remove this ability for Participants to provide a “sensible” level of information and risk swamping the Regulator in unrequired information in response to each request. (p. 4)	
MEU	The proposal would provide better information flow regarding rebids and their reasons and would make generators more careful about exercising their market power. (p. 27)	
Arrow Energy	The proposal limits the defence of disputed rebids to the reasons given. This would introduce an inordinate burden on generators. (p. 4)	
Macquarie Generation	By default, if such evidence is not completely furnished or if such an evidentiary hurdle is not met, then the trader is by default, guilty of acting in bad faith irrespective of the truth of the matter. The AER could decide to take court action as soon as it had a weak and incomplete response from a generator that does not thoroughly satisfy the good faith provisions. That generator and its spot traders could no longer rely on additional material that was not readily available or adequately documented in the response to the initial AER information request and investigation. (pp. 2-3)	The proposed additional information requirement could be breached if a participant failed to provide either accurate data or complete data to the AER upon request. A breach of this rule is proposed to be a rebidding civil penalty. The Commission considers that this could impose a significant regulatory burden on participants, particularly given the level of potential penalty involved. See section 5.4.2.
Rebidding on the basis of AEMO data or other material circumstances		
SACOSS	This is appropriate. The accuracy and reliability of pre-dispatch forecasting is a central element to the issues being discussed. By mandating a reference to AEMO published data a clear driver is established to refine this process – for the benefit of both supply side and (current and future) demand-side responses. (p. 7)	The Commission does not consider that the proposed rule to limit the reasons for a rebid to objectively observable changes in conditions and circumstances would benefit the market in the long term interests of consumers. The exclusion of subjective expectations as a reason for a rebid may have the effect of restricting efficient price discovery. See section 4.5.2.
Arrow Energy	This proposal is at odds with the fundamental reason for allowing rebidding and is impractical as aspects such as plant availability, fuel status and contract position are not readily observable yet changes in these should clearly merit legitimate rebids. (p. 3)	
CS Energy	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	

Stakeholder	Comment	AEMC response
	forecasts are increasingly affected by demand-side response, assumptions on distributed generation and the expected utilisation of non-scheduled generation. (p. 11)	
GDF Suez	<p>Do not support an approach that would limit rebids to be in response to explicit and defined information such as the AEMO forecasts. Market participants employ expert staff in their trading teams to utilise their knowledge and skill in understanding and anticipating what the market outcomes might be on any given day. This requires traders to take into account a wide range of information, not just limited to the standard published market forecasts. (p. 4)</p> <p>Placing restrictions on all traders so that they are constrained to simply respond to published AEMO data updates reduces the market to a linear process, where all traders must apply tunnel vision to a single data stream. This is counter to the concept of a genuine open market, in which participants are free to choose how they offer their product. (p. 5)</p>	
Alinta Energy	Do not support the view that all rebids should be made with reference to AEMO data. While AEMO data is invaluable it is often an input into a participants own analytical tools and processes. It is internal systems and analysis that participants utilise in order to gain competitive advantage and in order to better protect their commercial interests. (p. 6)	
InterGen	Considers it unreasonable and overly restrictive to limit bid and rebids to published AEMO data. It reduces the ability of price to reflect all information relevant to the market (ie the discovery of privately held information) potentially leading to price distortions. (p. 5)	
EnerNOC	Generators should be able to form their own views based on all available data. It is also important that they are able to respond to physical events in their plant. (p. 9)	
Rebidding as soon as practicable		
Arrow Energy	Factors monitored by traders often change, but may not necessarily translate into a rebid. In some cases the duration of the change in the factor may have a more significant bearing on the need to rebid. (p.	The Commission has proposed to include an additional amendment to the NER to require a market participant to make a rebid as

Stakeholder	Comment	AEMC response
	8)	<p>soon as practicable after it becomes aware of the change in material conditions and circumstances that provides the basis for its decision to rebid. A requirement for participants to rebid as soon as practicable upon becoming aware of the change should provide for more accurate, reliable and timely information to other participants. Responses that are in line with the underlying conditions of supply and demand should lead to more efficient wholesale price outcomes in the short term and create efficient signals for investment in supply and demand over the longer term. The Commission considers that further clarity on a reasonable period of time should develop with consideration and feedback from participants and the AER, and that it is ultimately a matter for the court to determine whether or not the time taken to make a rebid was reasonable. See section 4.6.2.</p>
GDF Suez	It is unclear exactly when the requirement to rebid would arise under the proposed changes. (p. 4)	
Alinta Energy	The South Australian Government's rationale for an 'as soon as possible' threshold is poorly constructed, in that it presupposes that information is somehow material at a point in time, at which time a decision to offer or rebid is made, and following that single occasion that information somehow becomes irrelevant. Markets are far more dynamic than this with participants revisiting and reinterpreting information on an ongoing basis. (p. 5)	
InterGen	The "when practicable" timeframe may be unworkable. A generator may not seek to rebid when a change in material circumstances becomes known preferring to first wait for confirmation of further events or other triggers. Generators may also wish to delay a rebid for further analysis (especially when there are other non-market specific factors to consider). (p. 3)	
Rebidding on the basis of all known conditions and circumstances		
Arrow Energy	The proposed rule change is not practical and in particular does not clearly define what is to be considered to be included in the redrafted 'change in material conditions and circumstances'. Arrow supports the in principle position that rebids should only be limited to the occurrence of significant change in conditions and circumstances. Achieving this ideal in practice is difficult as what may be a significant change in condition or circumstance for one generator may not be for another. (p. 5)	<p>The Commission considers that it is not the change in market conditions that triggers generators to adjust their position but rather the change in their expectations (and their expectations of other generators' expectations). As such, a rebid based on an expectation that does not eventuate may be equally as valid in arriving at an efficient outcome as a rebid based on an objectively observable change in market conditions. If a generator changes its intentions for dispatch then it is important that they reflect that change in their market offers as soon as practicable.</p>
CS Energy	<p>A participant will attempt to do this, but it 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. (p. 9)</p> <p>Ruling out some changes in circumstance as being immaterial will not improve the</p>	

Stakeholder	Comment	AEMC response
	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). (p. 11)	
GDF Suez	Do not support the proposal to limit what can be considered in deciding whether there was a 'material' change in circumstances, as this would lead to participants not being able to actively rebid to optimise their position which in turn, would lead to inefficiencies in market outcomes. (p. 4)	
InterGen	Under the proposed rule change a generator may be driven to continuously rebid as new information comes to hand. This may lead to an inefficient level of rebidding. (p. 5)	
Generating portfolios rather than individual units		
SACOSS	Strongly supports the rule change proposal's provisions for considering the importance of generation portfolios rather than individual units as is presently the case. (p. 7)	In determining whether a generator had a genuine intention to honour its offer or rebid, the Commission's draft rule would also allow for an inference to be drawn from other offers, bids and rebids made by the generator. See section 4.7.2.
Alinta Energy	Where there is clear evidence of bidding or rebidding that is not in good faith it is unlikely to be reliant on an understanding of a participant's entire generating portfolio. More to the point, the regulators limited understanding of a participant's position and drivers in the market are likely to lead the regulator to have unrealistic perspectives and scenarios conceived for the purposes of investigation that do not assist in the identification of 'issues' with rebidding. Thus, in the absence of clear evidence of rebidding or bidding that is not in good faith the value of cross-portfolio assessments is likely to be fraught. This component of the proposal should not proceed. (p. 4)	
InterGen	This aspect introduces risk that the AER implies bad faith intention through a misinterpretation of how a generator bids or rebids across their entire portfolio – in effect seeking a cause and effect where none may exist. (p. 3)	

G Summary of issues raised in submissions on the Options Paper

Stakeholder	Comment	AEMC response
Assessment framework		
AER	It is important that the current process remains focussed on assessing the SA Minister's original rule change proposal, which the AER considers would greatly assist in improving firmness of participants' bids and offers and ultimately the market's confidence in forecast information. (p. 2)	The Commission considers that the existing good faith provisions are ineffective in addressing the issues raised. The good faith provisions prohibit generators submitting bids which they do not intend to honour under any circumstances or are incapable of complying with if dispatched. However, they do not prohibit generators submitting a bid, in the knowledge that it may be honoured, but then subsequently changing its intentions for dispatch without reflecting those intentions in a rebid as soon as reasonably practicable. The Commission considers that it is the inability of the existing good faith provisions to address this latter behaviour that provides the case for making a change to the NER. See section 2.3.
SA Government	Consider the existing framework has been incorrectly characterised, which may have limited the Commission's consideration of options to address the issues. It is important that the Commission's starting point for analysis acknowledges that the appropriate market conduct for rebidding existing in the National Electricity Rules today is for market participants to have a genuine intention to honour their offer or rebid if material conditions and circumstances remain unchanged. (pp. 1-2)	
GDF Suez	The paper goes beyond the scope of the proposed rule and is more akin to a self-initiated review than a rule change. (p. 1)	
EnergyAustralia	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). (p. 2)	The Commission recognises that a potential trade-off in energy-only electricity markets like the NEM can occur between productive efficiency (short run) and dynamic efficiency (long run). Too much weight on productive efficiency in the regulatory framework can weaken incentives to invest. While the Commission would be concerned about any changes to the rules that give too much weight to productive efficiency at the expense of dynamic efficiency, the price setting process should be sufficiently transparent and robust such that market participants have confidence that these signals are generally reflective of underlying supply and demand conditions in the

Stakeholder	Comment	AEMC response
		NEM. See section 2.2.
The role of rebidding		
RWEST	Appropriate pricing of output requires a complex and evolving assessment of both the generators' individual capabilities and costs but also the emerging supply and demand fundamentals driving the dispatch of one's own and others' generating units. Rebidding plays a fundamental role in this price discovery process and rebidding relatively close to delivery is important to ensure that prices can better reflect the underlying fundamentals of supply and demand, to underwrite efficient dispatch and to ensure security of supply. (p. 2)	The draft rule would not restrict the ability of generators to submit rebids close to dispatch. Where there is a definite need to submit a rebid close to dispatch, such as a unit tripping, the additional reporting requirement in the draft rule is likely to be a relatively straightforward exercise and not impose a significant burden on the generator. The additional reporting requirement should therefore promote more efficient market outcomes in the long term interests of consumers.
ERM Power	Agree that flexibility is vital for the efficient functioning of the market, and we would caution against regulatory approaches that apply blanket statements or limitations that might unintentionally limit or prohibit reasonable commercial behaviour from generators. (p. 5)	
AEMO	The options paper discusses the benefits of rebidding in terms of participants responding to short-term price signals. However, there are a number of operational issues that are effectively managed through rebids. For these issues, prefer the market design to provide participants with the maximum possible scope for the timely adjustment of market bids/offers. (pp. 2-3)	Where there is a definite need to submit a rebid close to dispatch, such as a unit tripping, the additional reporting requirement in the draft rule is likely to be a relatively straightforward exercise and not impose a significant burden on the generator. The additional reporting requirement should therefore promote more efficient market outcomes in the long term interests of consumers.
Origin Energy	It is important to establish that late rebids do not necessarily equate to inefficient market outcomes. A ROAM Consulting study on behalf of the AEMC found that – 'late rebidding quite often has a role to play in responding to price spikes in pre-dispatch forecasts and reducing market volatility'. This highlights that by enabling generators to respond to changes in market circumstances, late rebids assist in promoting market stability and efficiency. (p. 2)	
Origin Energy	With the increasing penetration of non-scheduled distributed and intermittent wind generation and solar PV, rebidding is even more important to efficient market operation. The sometimes unpredictable nature of wind and solar PV means that thermal generators require the scope to respond to fluctuations in supply. Rebidding, (and indeed late rebidding)	

Stakeholder	Comment	AEMC response
	would allow for this to occur, and is crucial for the stability and security of the system as well ongoing reliability. (p. 4)	
ESAA	While the last “strategic rebidder” may theoretically gain a level of transient market power, other market participants will respond over time, as each trading period does not happen in isolation. Each dispatch interval feeds into a relevant trading interval, hourly experience, day, month, years informing the behaviour of all market participants. Late rebidding is needed to ensure efficient market operation, as participants respond to volatile demand and pricing signals. Rebidding enables participants to respond to situations such as network congestion or tight supply / demand conditions. It is in these sorts of situations that it is desirable that participants are able to adjust their bids, as they respond to a dynamically changing outlook. (p. 4)	The Commission considers that some instances of late rebidding by generators can prevent other market participants from acting on their learnings and skew the market towards outcomes that are more favourable for those generators that are online and regularly being dispatched. The technology and operational cost characteristics of different generators mean that certain generators are more often online than others. As such, bidding behaviour by these generators can entrench market outcomes that are more in line with their commercial interests. Over the long-term, the purpose of the market as a mechanism to encourage efficient investment may be undermined. See section 3.2.3.
EnergyAustralia	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 and 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. (p. 3)	
Snowy Hydro	The NEM design is not set up such that each and every technology has no competitive advantage in any time frame. For instance, Baseload generators competitive advantage is low SRMC but with high capital cost and high start-up cost, compared to peaking gas generators that have low capital and start-up costs but high SRMC cost. These investment choices are made at the time of new entry and the Rules should not contemplate putting all investments to compete on a	

Stakeholder	Comment	AEMC response
	common basis as this would negate the need to have different plant types and a market in the first place. (p. 3)	
MEU	What is concerning about the structure of the NEM is that at certain times, some generators have the ability to make rebids which are not made with the constraint of competition and therefore do not reflect efficient dispatch. In particular, the later the rebidding is made, the more difficult it is for the demand-side to participate in the market. The lower the involvement of the demand-side in the market, the less efficient the market outcome will be. (p. 2)	The ability of the market to arrive at an efficient outcome may be compromised by rebids that are made very close to the relevant dispatch interval. Late rebidding may prevent an efficient outcome as other 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. See section 3.1.
Visy	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. (p. 5)	
EnergyAustralia	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. (p. 3)	This form of response is not likely to represent an efficient outcome if these generators are operating at prices below cost in order to mitigate against the possibility of a high price that only arises through a strategy of late rebidding. See section 3.2.3.
GDF Suez	GDF Suez suggests that a participant's decision not to enter into contract arrangements and be exposed to the market is made explicitly in the face of all available information, and it is therefore appropriate for uncontracted generators to seek to maximise profits based on market conditions. Both the contracted and uncontracted participants are well aware that price spikes that deviate from pre-dispatch are possible as conditions in the market evolve. (p. 3)	While the Commission considers that entering into hedge contract arrangements can provide price certainty, costs to consumers would increase if the price of hedge contracts are influenced by inefficient pool price outcomes caused by late rebidding. See section 3.2.3.
Impacts and materiality of late rebidding		
ERM Power	While we have focussed on Queensland in this submission and this is where the problem is currently of most concern, we	The probability that a late rebidding strategy will be commercially successful is

Stakeholder	Comment	AEMC response
	believe that the fact that this behaviour is able to occur in the NEM without apparent penalty (or at least a meaningful enforcement approach) is unacceptable. We do not support the view put forward by some stakeholders that the regional nature of the issue means that no action is required. (p. 4)	likely to be enhanced in an environment where the supply and demand balance is tight and/or ownership is concentrated. However, the ability for generators to attempt a strategy of late rebidding does not depend on ownership structures in particular regions, nor does it depend on a specific commercial agreement. Late rebidding is solely enabled by the rules. See section 3.3.3.
Alinta Energy	Would encourage the AEMC to reconsider the nature of the rebidding “problem” and whether it is great enough to warrant substantial change to NEM wide-market arrangements. It may now be the case that rebidding in itself is only the market responding to the unique structural conditions which exist within individual NEM regions, i.e. Queensland. If this were the case then constraining the ability for all NEM market participants to rebid would appear a heavy-handed response to a perceived problem that has not to date been effectively proven to be of material consequence to the market and would likely lead to unintended consequences and costs, which would ultimately flow back to consumers for little to no corresponding benefit. (p. 4)	
Visy	Concerned 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. (p. 1)	
EnergyAustralia	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). (p. 2)	
AGL	Accordingly AGL is very concerned that such a wide ranging review of the market bidding rules and good faith provisions is being undertaken with respect to an issue whose materiality has not been established and the occurrence of which appears isolated in both time and location. Further, the review has seemingly been prompted by a single unsuccessful prosecution under the rules. This is surely an insufficient basis upon which to conclude there is an inherent deficiency with the current provisions, the regulator’s	The Commission considers that these issues indicate that the current rules are not adequately setting reasonable boundaries on the ability of participants to influence price outcomes to the detriment of other participants in a way that is not reflective of an efficient market, although it does note that these have not manifested until recently or in

Stakeholder	Comment	AEMC response
	ability to enforce them or participant compliance. (p. 2)	all regions of the NEM. The Commission has consequently decided to make a draft rule that would address the deficiencies in the current market framework, while remaining proportionate to the materiality of the issues.
ESAA	The paper seems unduly concerned about the supposed impact of late rebidding on DR and some gas plant. Plant characteristics are part of investment choice. Each type of plant has strengths and weaknesses. The paper notes that under the current rules some plant cannot respond to late rebids. It is odd that this concern is only extended to some gas plant and DR. If concern about response times was to be technology neutral, the proposals to change gate closure should be based on the characteristics of the least responsive plant. (p. 3)	While all generation technologies have different response times, the Commission considers that rebids submitted close to dispatch have a disproportionately higher likelihood of resulting in inefficient market outcomes. See section 3.1.
Late rebidding and market power		
ERM Power	We would be well placed to build a new peaking power station in Queensland. However, we would not do this because the lateness of the current rebidding means that new plant could still not react to the higher prices. In short, the high prices both in the spot market and in the forward contracts market in Queensland do not seem to be the result of genuine supply and demand conditions. (p. 4)	The Commission considers that the price impacts from late rebidding cannot be considered as an efficient price signal for investment because they can have the effect of precluding the occurrence of a competitive demand or supply side response in the short term. See section 3.3.3.
Snowy Hydro	The NEM has demonstrated that investment decisions are made to suit the prevailing and expected market conditions. If the economics support the need for more fast start generation then the market will ensure increase supply in this segment of the market. (p. 3)	
Visy	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 periods 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	The Commission considers that investment in new fast-response plant or demand-side activities may not be economic, as they may not be able to react to the short timeframes involved and respond to the short term prices created through late rebidding. See section 3.3.3.

Stakeholder	Comment	AEMC response
	of many of the price spikes seen in Queensland in the last two years and the lack of warning that has typified these events is a strong disincentive for intending new entrants to go ahead with their investment decision. (p. 7)	
Contract market impacts		
RWEST	The prospect and reality of market manipulation is corrosive to wholesale market liquidity. Intermediaries face the prospect of trading with counterparties not just with the power to move contract settlement prices, but with asymmetric information on when and how prices might move. The result is a vicious circle of declining liquidity and increasing cost to consumers. • We would note that these wholesale market costs and impacts can arise whether or not there is ongoing distortion in the physical market: the mere prospect that prices can be manipulated and the absence of appropriate regulatory constraint can deter potential liquidity providers. Steps to underwrite market integrity and confidence can therefore yield significant benefits in and of themselves. (pp. 5-6)	Forecasting the intent and effectiveness to which generators will engage in late rebidding in the future has the potential to become the driver of contract value, rather than the fundamental underlying market conditions. See section 3.2.3.
Snowy Hydro	Snowy Hydro does not believe that late rebidding has a material impact on hedge prices as there will never be a precise estimate of price spikes. Modelling would determine a price volatility range and payouts under various contract scenarios which are unlikely to move based on late rebids or moving generation quantities to other price bands. In essence, a few significant late rebids a month are insufficient to move the forward curve as this curve is determined by fundamental supply and demand analysis. (pp. 5-6)	
EnergyAustralia	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. (p. 3)	While the Commission considers that there is certainly merit in participants entering into hedge contract arrangements to provide price certainty, this could increase costs to consumers if the price of hedge contracts are influenced by inefficient pool price outcomes caused by late rebidding. See section 3.2.3.

Stakeholder	Comment	AEMC response
Pre-dispatch		
Stanwell	While the rule change request and Options Paper highlight the increasing desire for demand-side participants to affect dispatch outcomes, there are also significant distortions relating to non-scheduled generation and load as well as natural variation in demand forecasts. Each of these sources of non-transparent variation become aggregated into the single “demand” value which is presented to scheduled generators and market analysts making it difficult to evaluate the relative impact. (p. 7)	The draft rule would not restrict the ability of generators to submit rebids close to dispatch. Where there is a definite need to submit a rebid close to dispatch, such as a unit tripping, the additional reporting requirement in the second draft rule is likely to be a relatively straightforward exercise and not impose a significant burden on the generator. The additional reporting requirement should therefore promote more efficient market outcomes in the long term interests of consumers.
EnergyAustralia	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. 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. (pp. 3-4)	
Market structure		
Q Energy	Have observed that the incidences of late rebidding have been especially prevalent in Queensland since the consolidation of the original three government-owned generators into two corporations, with the attendant rebalancing of asset portfolios. It is particularly worrying because these two generators – both owned by a single owner, the Queensland government – together control 81% of Queensland’s baseload generation as well as 91% of the state’s main ramping assets, the intermediate units. This effectively allows generators first to initiate late rebidding incidents – through withdrawing their baseload power supply from low priced bands at the last minutes of the trading interval – and then to control the market’s response through not rebidding their intermediate capacity in response to those baseload withdrawals. (p. 6)	The probability that a late rebidding strategy will be commercially successful is likely to be enhanced in an environment where the supply and demand balance is tight and/or ownership is concentrated. However, the ability for generators to attempt a strategy of late rebidding does not depend on ownership structures in particular regions, nor does it depend on a specific commercial agreement. Late rebidding is solely enabled by the rules. The Commission has consequently decided to make a second draft rule that would address the deficiencies in the current market framework, while remaining proportionate to the materiality of the issues. See section 3.3.3.
SACOSS	Remain of the view that while the rules allow for the behaviours described in the rule change and the Options Paper, it is structural issues that determine the extent of the impacts in any given region. (p. 1)	

Stakeholder	Comment	AEMC response
AEMO	<p>The incidence of late rebidding events cited in our market reports repeatedly arise from a handful of facilities. The paper's options would restrict all rebidding, the majority of which have no history of contributing to the events of concern. It would be unfortunate if the efficient operation of the entire market was impaired in order to constrain the behaviour of a small minority. (p. 5)</p>	
Snowy Hydro	<p>In the SA and QLD regions the observed Spot outcomes highlight potentially a structural issue. This does not mean that the Spot outcomes in these regions are inefficient as incumbent generators always face the risk of new entry eroding scarcity rents. We also highlight both these regions do not have under supply of generation. Hence the spot outcomes could be attributed to other issues such as retailers and generators in those regions being unable to negotiate forward contract prices and terms mutually acceptable to both parties. Consistent with the "Negative offers from Scheduled Network Service Providers) Rule 2013" the Rules should not be changed to deal with what is a structural issue. (p. 5)</p>	
ESAA	<p>While Queensland and to a lesser extent South Australia have not followed the recent trend of decreasing late rebidding, this is not an indication of a problem in of itself with the rules. In fact, if there was a problem with the rules it should be observable in all regions. The rules for the NEM need to be set with a national focus, as they apply to all regions. The incidence of late rebidding appears to be concentrated in the Queensland region, according to the analysis commissioned by the AEMC. As discussed in this submission, we do not support the view that this represents a problem that needs resolving. To the extent that the AEMC disagrees, it is important to draw the distinction between systematic issues with the rules and regional phenomena that may have other root causes. In the latter case, the most appropriate response is to correctly diagnose the drivers of the observed phenomena and draw these to the attention of the relevant policy makers. (p. 5)</p>	
Origin Energy	<p>A critical first step should be to examine the underlying reasons for Queensland's divergence from the national trend, such</p>	

Stakeholder	Comment	AEMC response
	<p>as the extent to which any structural issues, or transmission constraints, have contributed to an increase in late rebids. This would allow for a more targeted and appropriate response to this issue. Imposing added regulations on the entire market in response to a possible deficiency in one region, is a sub-optimal outcome which would result in a decrease in market efficiency overall. (p. 3)</p>	
Behavioural statement of conduct		
AGL	<p>Do not support a change being made at this time. There is a risk that it would only serve to introduce uncertainty amongst traders and generators, who have grown familiar with the existing market rules and the framing of the good faith obligations. This uncertainty might mute their confidence to respond to changing market and operational conditions and participate actively in the price discovery process, thereby negatively impacting the realisation of efficient market outcomes. (p. 4)</p>	<p>Compared to the current requirement that offers be made in good faith, the provisions of the second draft rule would establish a more objective basis through which a court would be able to infer a generator's intent. The Commission considers that this would assist with the interpretation of and practical application of the rules.</p>
AGL	<p>You would not expect that a strategic strategy or pattern of behaviour over time that is designed to mislead other market participants would succeed for long until is it recognised by other participants who adjust their strategy accordingly. While this observation does not condone such behaviour, it raises questions about the benefit of holding a bidder responsible for how their bids are interpreted by others compared with the potential chilling effect of such a framework on preparedness to rebid. (p. 4)</p>	<p>Under the second draft rule, while it may be difficult to prove in any individual instance that the generator deliberately delayed in making its rebid, a repeated pattern over time of submitting offers or rebids that were then amended by way of subsequent late rebids could suggest that the generator did not have a reasonable basis to represent that it would honour its initial offers. See section 4.7.2.</p>
Stanwell	<p>Support measures which deter participants from 'Engaging in a pattern of behaviour of submitting offers, bids and rebids that have the potential to be honoured but which create false expectations among market participants as to the intentions of the generator at dispatch'. We agree that such deliberately misleading behaviour would be detrimental to the market and we consider that the existing provisions allow for enforcement against such behaviour. Specifically, cl3.8.22A c) allows intent to be ascertained from the conduct of the relevant Market Participant and others, but does not limit consideration of conduct to specific impugned bids. (pp. 8-9)</p>	

Stakeholder	Comment	AEMC response
AGL	Concerned about the intended status of a statement of conduct as a legal instrument. It would be important that, like the existing good faith provisions, any statement of conduct be set out in full in the Chapter 3 rules themselves so that a change to them must proceed via a formal rules consultation process. This ensures they are not susceptible to incremental change by a regulatory agency without a full assessment of market impacts. (p. 5)	The Commission has determined to amend the existing good faith provisions in the NER. Compared to the current requirement that offers be made in good faith, the provisions of the draft rule would establish a more objective basis through which a court would be able to infer a generator's intent. The Commission considers that this would assist with the interpretation of and practical application of the rules. See section 4.6.1.
EnergyAustralia	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. (p. 4)	
Visy	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. 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. (p. 12)	
ERM Power	The New Zealand approach seems the most instructive to date, because it grants the regulator powers to act to resolve issues rather than having them continue and then be the subject of court action. Support the NZ approach where the Authority may direct that an activity be suspended, limited or stopped (either generally or for a specified period), direct that completion of trades be deferred for a specified period, and direct a participant to take specific actions to overcome the undesirable trading situation. Swift identification and resolution of market issues according to the principles of UTS regulation will be in the public interest and support confidence in the market. We also suggest that the revised good faith provisions could include public notification of AER investigations into trading activity,	

Stakeholder	Comment	AEMC response
	as this would ensure market participants were quickly made aware of areas of concern and provided an opportunity to adjust behaviour accordingly. (pp. 6-7)	
RWEST	<p>The current good faith provisions also fail to address the regulatory gap between the physical market and the financial wholesale market. As the options paper notes, the Corporation Act prohibitions on derivative market manipulation cannot be applied to physical markets. This largely renders the Corporation Act redundant in the electricity derivatives markets and indeed wider commodity markets. Manipulating the underlying physical market to set prices at artificial levels and to leverage the benefit to a financial contract position is precisely the way in which electricity and commodity markets can be most easily manipulated. This is a serious deficit in the regulatory framework that should be addressed in step with action on late rebidding. As the next section illustrates, allowing market manipulation in the physical market has a pernicious effect on wholesale markets which further damages competition in the market, increases costs to consumers and threatens investment and security of supply. (p. 4)</p>	<p>In determining the appropriate amount for a breach of clause 3.8.22A, a court would be likely to consider where the participant in breach did not intend to mislead other participants but did so through error, or any consequential impacts of the breach, such as any windfall gains made by the participant or losses incurred by other parties through financial trading activities. See section 4.8.</p>
Restricting rebidding close to dispatch		
Alinta Energy	<p>Early gate closures or prescriptive information disclosure requests must apply equally under the rules to both the demand and supply side of the NEM, or run the risk of creating further market distortions and inefficiencies. Additionally from an equity perspective, it appears inappropriate to limit the supply side of the market from responding to changing market conditions, if there is no corresponding restriction on the demand-side of the market. It is Alinta's view that the market already contains several information asymmetries which result in wealth transfers between participants. Arguably the impact of non-scheduled generation creates a greater inefficiency in the market than rebidding ever could, given non-scheduled generation does not appear in pre-dispatch, yet whilst this issue has been well identified it still remains unresolved. (p. 6)</p>	<p>The Commission considers that it has not been sufficiently demonstrated at present that the potential costs associated with restricting efficient rebids close to dispatch would be outweighed by the benefits of preventing generators submitting late rebids that exploit the limited opportunity for other participants to respond. See section 5.4.2</p>
EnerNOC	Our conclusion from the examination of the current "good faith" requirements is that	A record which sets out the change in material conditions

Stakeholder	Comment	AEMC response
	reporting requirements around rebids achieve little: highly motivated and creative traders can produce a plausible reason for any rebid. (p. 8)	and circumstances that gave rise to the generator's change in intentions, and the time at which the generator formed the intention to change its offer, would provide the AER with a greater ability to assess whether the generator made the rebid as soon as practicable, or whether the generator deliberately delayed in making its rebid in the knowledge that other participants would have limited time to respond. A contemporaneous record would also provide information to the AER to assess the extent to which a generator had engaged in a repeated pattern of deliberately delaying rebids until close to dispatch, and therefore whether there was a reasonable basis for that generator to represent to participants that it would honour any offer it made. See section 5.4.2.
ESAA	The suggestion in the paper that an earlier gate closure would allow demand-side time to respond after which supply would have no opportunity to respond, offends the notion of competitive neutrality. This approach would make it extremely challenging for a generator to manage their contract position. We would note this disadvantage is completely different to the demand-side's alleged disadvantage, as this would be a regulatory restriction placed on one type of market participant, as opposed to a technology limitation, which is a function of investment decisions. (p. 3)	The second draft rule would not restrict the ability of generators to submit rebids close to dispatch.
Origin Energy	The purported benefit of gate closure is that it would allow for a physical response by peaking generators and demand-side South Australian Governments to a late rebid. These market participants would have greater scope for a physical response where there is a longer window of time under which rebids are restricted. The longer the period of restriction, however, the greater the likelihood of distortions in the spot price due the inability of generators to respond to changing demand and supply conditions. Such an	

Stakeholder	Comment	AEMC response
	<p>outcome is likely to have a greater distortionary effect on the market overall compared to any issues associated with late rebidding. There does not appear to be a reasonable scientific approach to determine the cut off period for rebids under gate closure. Any such period is likely to be arbitrary, and at odds with the NEM design. (p. 4)</p>	
Implementation		
AGL	<p>Anticipating the impact of changes in market and operational conditions on dispatch and price outcomes is a skill learnt and improved upon through ongoing market participation. Any change to the rules would inevitably involve a period of adjustment while participants work to understand the full implications for their and the market's bidding practises and processes. (p. 3)</p>	<p>The Commission acknowledges that any changes to the NER will necessarily involve an appropriate period of transition and implementation.</p>
AEMO	<p>Options that impose restrictions on rebidding may require changes to AEMO's bidding systems. This would require a lead time of around 18 months to implement. AEMO's general practice is to commence design work to implement changes after the AEMC makes a draft determination. Alternatively, options that rely on self-compliance and regulation by the AER do not require any changes to systems and could be implemented without delay. This is supported by the NEM's high level of transparency where all rebidding information is published shortly after the event. (pp. 5-6)</p>	

H Summary of submissions on the first draft determination

Stakeholder	Comment	AEMC response
Materiality		
Stanwell	strategic late rebidding is not a material problem in the NEM. Wholesale prices are correlated with demand, indicating they are broadly efficient and rational (p. 9). Rebidding close to dispatch is efficiency enhancing as material changes occur just before dispatch (p. 2).	
CS Energy	There is no evidence late rebidding is misleading. The average delay between the change in circumstances and the rebid is small and there is no correlation between the length of delay and an increase in price. Rebidding during a trading interval does contribute to high prices but this is not proof of participants strategically delaying rebids. (pp9-10). You cannot infer a lack of good faith by comparing changed circumstances and rejecting those which occurred earlier than the time notified in the rebid reason, as it is a question of the participant's subjective intentions. Changes in circumstance do not really prove intention, they are just incidental. (p. 12) Information improves such that subjective expectations are likely to change, as time reduces to dispatch. (p. 13).	
EnergyAustralia	While there is a theoretical risk that rebidding very close to dispatch may lead to sub-optimal outcomes in specific circumstances, there is no material or systemic problem across the NEM (p. 2)	Quantitative analysis undertaken in the process of preparing the first draft determination indicates there has been more widespread occurrence of late rebidding in the NEM over the last two years, predominantly in Queensland and to some extent in South Australia. In these jurisdictions, late bidding behaviour has resulted in price spikes, specifically towards the end of 30-minute trading intervals. Further analysis undertaken in the process of preparing the second draft determination indicates that late rebidding and associated price spikes have had the effect of inflating the prices of financial hedge products.
ESAA	Data from AEMO suggests there is no significant divergence in spot prices caused by late rebidding (p. 1).	
Delta	It is not clear that late rebidding is a material problem in the NEM. The cost of strategic very late rebidding is difficult to separate from the underlying limitations imposed on the market by the 5 minute dispatch versus 30 minute (5/30 min) settlement inconsistency. (p. 2) In 2013, rebids in the last dispatch interval of a 30 minute settlement interval lowered prices in the largest regions (NSW and Vic), while modest rises were observed in Qld, SA and Tas, with the total estimated cost of very late rebidding was less than \$10M. The proportion associated with 'strategic'	

Stakeholder	Comment	AEMC response
	rebidding has not been identified. (p. 2).	There is also some evidence for an impact on traded contract market volumes. See section 3.3.1.
Alinta	Based on the material presented, there is no evidence that rebidding represents a market failure in the NEM or that any material problems are being created by “late rebidding”. Additionally, Alinta maintains the view that the NEM has developed effectively overtime to a stage where it is well equipped to deal with any potential issues associated with rebidding (p. 2). Given the regionalised nature of the problem, the case for introducing new reporting obligations for all NEM market participants appears a heavy handed response to a perceived “problem” that has not to date been effectively proven to be of material consequence to the entire market (p. 4).	While the issues are more apparent in some jurisdictions than others, deliberate late rebidding behaviour is enabled by the rules. The Commission therefore considers that it is appropriate to address this issue through the rule making process.
Origin	Any issues associated with late rebidding have not been proven to be systemic or having a significant adverse impact on overall market efficiency. (p. 1) The incidence of late rebidding has generally been in decline over the past few years with the exception of a few jurisdictions. Additionally the Australian Energy Market Operator (AEMO) has also shown that the financial impact of late rebidding in these jurisdictions is immaterial (p. 3).	
AGL	AGL notes the AEMC’s concerns raised in the Draft Rule that incidents of ‘strategic late rebidding behaviour by generators has the potential to result in inefficient price outcomes’. AGL does not contest that these events have occurred but considers that the proposed solutions to these events are likely to create a net harm to the market. The significance of inefficient rebidding on overall market outcomes has not been clearly demonstrated. The issue is at the moment largely attributable to the current market structure in one jurisdiction. (pp. 1-2)	
EnerNoc	Price signals resulting from strategic late rebidding behaviour are not efficient and the issues are material. (p. 1).	
MEU	The exercise of market power is unacceptable in any guise as it delivers an outcome that does not reflect competition (p. 5). The median price of electricity in the NEM lies in the \$30-\$40/MWh range, with the average time weighted price lying in the \$40-\$50/MWh range. This significant difference reflects that rebidding tends to	

Stakeholder	Comment	AEMC response
	increase prices rather than reduce them. The ability to increase prices is massive by a factor of over thirty times from the median, up to \$13,000/MWh. (p. 11).	
ERM	If prices are regularly pushed to the market price cap in an otherwise oversupplied wholesale environment then there is reason to question whether the market is operating as intended. This is particularly because previously un-forecast high prices occurring late within a trading interval cannot be economically responded to by the market itself (p. 1).	
PIAC	PIAC supports the intent of the proposed rule change and the AEMC's Draft Determination to strengthen the provision about the intent of wholesale supplier bidding behaviour (p. 1).	
Visy	There has been a high correlation between high priced rebids and late dispatch intervals in Queensland, which is too statistically strong to be explained as a random outcome. This phenomenon has also been observed in SA, and reflects strategic late rebidding. This disincentivises potential market entrants, such as peaking generators, and undermines confidence in the NEM (pp 2-3).	
SA Government	In some jurisdictions, late rebidding and rebidding towards the end of trading intervals has recently increased. This makes it difficult for generators and consumers to physically respond, can significantly increase the price at dispatch, and can contribute to a reduction in the amount of demand response that is available. (p. 2)	
False, misleading or likely to mislead		
GDF	Compared to the existing provisions, the draft provision more clearly expresses behaviour that a generator cannot undertake as opposed to outlining general behaviour that a generator should undertake. This provides an additional degree of clarity to participants and stakeholders (p. 2).	The Commission considers that compared to the current requirement that offers be made in good faith, framing participants' obligations in terms of a prohibition on false and misleading offers creates a more objective basis through which a court would be able to infer a generator's intent. The Commission considers that this would assist with the interpretation of and practical application of
ERM	The proposed changes to the good faith provisions is a logical approach which closes a gap in the NER compared to other electricity markets' rules and provides the regulator with meaningful enforcement	

Stakeholder	Comment	AEMC response
	measures. It is also consistent with Corporations Law, Consumer Law and likely community expectations. (p. 1)	the rules. See section 4.6.1.
Visy	This is an improvement on the existing good faith bidding rule as they provide a more objective test and are likely to be more effective in stamping out strategic late rebidding. The ability to refer to extrinsic factors, such as the knowledge and conduct of other participants, in determining whether a rebid is false and misleading is a significant improvement on existing provisions. (p. 4)	
PIAC	PIAC supports the proposal in the Draft Determination, to replace current provisions with 'a prohibition against making false or misleading offers'. PIAC takes the view that such a provision is likely to improve outcomes for consumers in the wholesale market. (p. 2).	
RWE	Casting the prohibition in terms of "false and misleading bids" and making the bids and offers an "ongoing representation" of generators willingness to fulfil the bids and offers is helpful. Linking this representation solely to "good faith" was unduly narrow and fails to cater for circumstances in which bids are used strategically to influence pre-dispatch schedules or become obsolete in the light of circumstances. (p. 2)	
MEU	MEU is concerned this provision has been 'watered down' from the SA Government proposal, as generators are allowed to rebid based on their expectations, and even their expectations of other generator expectations. Under the draft rule, any generator making a rebid can do so on the expectation that it will improve its profitability, stating that earlier bids were not false or misleading - they just did not deliver the profitability the generator was seeking (pp 9-10).	The Commission considers that only permitting rebids on the basis of objective and quantifiable changes in market circumstances, as proposed by the South Australian Government, would limit the price discovery process and the achievement of efficient market outcomes. In addition, the Commission considers that a rule prohibiting rebids based on subjective expectations would be difficult to apply in practice and would be likely to increase levels of uncertainty in compliance with the rules. See section 3.1.1
SACOSS	The draft rule cannot prevent or hinder repeated attempts by a trader to cause price spikes by shifting capacity into higher price bands. The proposed rule included a note that would clarify that where a trader expects a change to occur following its own rebid but that change does not eventuate, that is not a change in material circumstances. SACOSS believes the draft determination does not adequately address this issue of subjective	

Stakeholder	Comment	AEMC response
	expectations. (pp 1-2).	
Sun Metals	There is considerable uncertainty as to whether the obligation not to make bids that are misleading will provide an effective deterrent against strategic late rebidding, as this will need to be tested in court. It will potentially be costly for the AER to make and defend its provision, which will cause it to err on the side of caution. As such the proposed solution is not sufficient. (p. 2).	The application of a new rule is inherently uncertain. Compared to the current requirement that offers be made in good faith, this provision of the draft rule would establish a more objective basis through which a court would be able to determine a breach had occurred. The Commission considers that this would assist with the interpretation of and practical application of the rules. See section 4.6.1.
Alinta	The AEMC's draft recommendation introduces provisions which would allow for an inference to be made by the AER (or potentially a court) about a generator's genuine intention to honour its offer or rebid, based on that generator's history and patterns of re-bidding behaviour. In practise, these provisions may require the AER to make a subjective assessment of participants bidding behaviour, from the perspective of a third party who is not directly exposed to the market and does not have an intricate knowledge of bilateral commercial arrangements which may be in place. Alinta would be concerned with the AER taking a subjective assessment of a market participant's past behaviour, in absence of an understanding of their commercial position. Alinta would support the AEMC elaborating on how an assessment of a generator's previous rebidding patterns and history may be undertaken in practise under the proposed provisions (p. 3).	The Commission considers that both the AER and courts have access to a range of information regarding commercial imperatives and practices, and are qualified to draw inferences on that basis.
EnergyAustralia	In principle EA is comfortable with the proposed new behavioural statement, however the current 'good faith' requirements already prohibits false and misleading bids. There are no obvious benefits associated with the drafting change, but it will create uncertainty and confusion as participants and regulators try to discern the difference. (p. 2)	The Commission considers that compared to the current requirement that offers be made in good faith, the provisions of the draft rule would establish a more objective basis through which rebids could be judged compliant or non-compliant. See section 4.6.1.
Rebidding as soon as reasonably practicable		
RWE	The requirement to rebid "as soon as reasonably practicable" significantly strengthens and clarifies the case for bids	The Commission agrees with this assessment.

Stakeholder	Comment	AEMC response
	and offers to be interpreted as ongoing representations which remain valid until circumstances – and intentions – change (p. 2).	
EnergyAustralia	EnergyAustralia agrees that participants should rebid as soon as reasonably practicable after changing their intention and supports the explicit inclusion of this requirement in the draft rule. (p. 2)	
AER	Removing the word ‘reasonably’ would strengthen the obligation for participants to submit rebids as soon as feasible after the change in material conditions (p. 2).	The obligation to rebid ‘as soon as reasonably practicable’ in the first draft rule has been replaced in the second draft with an obligation to rebid ‘as soon as practicable’. See section 4.6.2.
Stanwell	Stanwell supports the broad principle of bidding as soon as reasonably practicable but is concerned about implementation. There is difficulty and subjectivity in determining when the intent to rebid was formed, and what is a ‘reasonable’ time between a change in circumstances and the forming of the intent (p. 13).	The Commission considers that the draft rule makes adequate allowance for the differences between generators. The draft rule stipulates that rebids be made as soon as practicable after generator becomes aware of the change in material conditions and circumstances on the basis of which the rebid is made, but does not proscribe a fixed timeframe, allowing courts and the AER to take individual circumstances into account.
Origin	There is likely to be an inherent level of ambiguity in the application of clause 3.8.22A(d) in that consideration of what is reasonably practicable would be imprecise and dependent on individual circumstances. (p. 1) These circumstances include physical change in availability of a supply source, businesses internal governance procedures, and incremental changes in market conditions and circumstances (p. 3).	
Alinta	In a practical sense the enforcement of this provision is less clear, as various participants have substantially different bidding and dispatch systems, meaning the time between the submission of rebids, or the time required to bring generating units into operation/adjusting output levels will undoubtedly vary between participants, and between the type of generation plant in question. Alinta would appreciate the AEMC providing additional guidance as to how this provision would potentially be assessed in practice. Additionally, Alinta suggests that industry consultation be included when developing the technical guidelines associated with this provision. (p. 3)	

Stakeholder	Comment	AEMC response
GDF	GDF supports the policy intent but believes the wording should be clarified to state that the participant should bid as soon as practicable after the intention has been formed, which happens after the material change in conditions. (p. 3)	The Commission considers the obligation to bid as soon as practicable after becoming aware of the change in conditions and circumstances implicitly contains an obligation to bid as soon as practicable after the intention has been formed. In addition, this provision creates an incentive for participants to form intentions in a timely manner. See section 4.6.2.
Time for other market participants to respond		
EnergyAustralia	This section is confusing, impractical and unnecessary. It effectively requires the rebidding participant to consider the capacity of other participants, generally their competitors, in their compliance and decision making processes. A participant can control their own decisions and processes to make a rebid in a timely fashion. It is the participant's circumstances and processes that should inform whether they made a rebid as soon as reasonably practicably (p. 4).	The Commission acknowledges this clause has created confusion amongst generators. Clause 3.8.22A(e)(2) sets up a mandatory relevant consideration for a court. This does not mean that, if a rebid is made late and others are denied a reasonable opportunity to respond, then the rebidder will necessarily be found to be in breach of the rules. It is merely one of the factors that the court must weigh up in deciding the "as soon as practicable" question. In the second draft rule, the clause has been changed into an aspirational statement, similar to the market design principles. The Commission considers this will retain statutory guidance to the court on the behaviour the clause is trying to address (i.e. the deliberate delay in rebidding until other market participants cannot respond), while alleviating concerns there is a positive obligation on generators to consider the ability of competitors to respond before they can rebid. See section 4.6.2.
Snowy Hydro	This section is not required once a generator has an obligation under sub-section (d) to rebid as soon as possible. In fact it creates a conflicting obligation where a participant contravenes 3.8.22A(d) by not making a rebid as soon as reasonably practicable because of concern with breaching 3.8.22A(e)(2) (p. 2)	
GDF	The impact of 3.8.22A(e) (time for other market participants to respond) is uncertain and places a participant in a position where they cannot know whether they are acting lawfully or not at the time a bid is made. (p. 4).	
ESAA	3.8.22A(e) (whether the rebid was made in time to allow other market participants to respond) is superfluous once a generator has an obligation under sub-section (d) to rebid as soon as possible. It is not clear how a generator should respond if they have formed a view a rebid is necessary, but one or more market participants would not be able to respond if a rebid was lodged. (p. 2).	
Delta	3.8.22A(e) has the effect of forcing a	

Stakeholder	Comment	AEMC response
	generator to consider information, namely competitor response times, that would reasonably be outside the knowledge of a generator submitting a rebid. (p. 3).	
Stanwell	Stanwell considers the clause requiring the court to have regard to whether a bid was lodged in time to allow for a competitive response as 'illogical, impractical and misguided'. (p. 14).	
CS Energy	A trader is likely to have significant difficulty in determining how quickly they need to rebid in response to an event as they may be required to consider (or attempt to consider) information that is generally outside the knowledge of traders (for example, the technical capabilities of other generators). This may distort the market and lead to inefficient outcomes. (p. 20) Given the underlying technical parameters of the plant of demand and supply side participants, there will always be a participant that is unable to respond to each rebid. (p. 21)	
Origin	This clause is unreasonable, impractical and likely to result in inefficient market outcomes. (p. 1) There will always be one participant that is the last to rebid within a trading interval. It is uncertain as to what type of generation technology should be considered by a trader as being able to respond to a late rebid. (p. 4)	
Pattern of conduct		
AER	Clause 3.8.22A would be assisted by a provision confirming that the Court can have regard to inferences arising from a pattern of conduct exhibited by the generator (p. 3).	Clause 3.8.22A(c) gives the courts additional guidance as to which factors are likely to be relevant in assessing whether a bid was false and misleading. While it may be difficult to prove in any individual instance that the generator deliberately delayed in making its rebid, a repeated pattern over time of submitting offers or rebids that were then amended by way of subsequent late rebids could suggest that the generator did not have a reasonable basis to make the representation contained in its initial offer. See section 4.6.1.
Stanwell	Courts are already able to refer to a pattern of conduct, as in the Stanwell case, so clause 3.8.22A is unnecessary. A pattern of rebids just before dispatch does not necessarily imply misleading conduct, but may be a response to more up to date expectations which emerge close to dispatch. (p. 17).	
GDF	Since the court can already turn its mind to the pattern of conduct by the generator, Clause 3.8.22A(c) does not increase the level of scrutiny (p. 3).	
CS Energy	Rebids made on another day or in relation to a different trading interval or different	

Stakeholder	Comment	AEMC response
	generating plant will have nothing to do with the offer that is assumed to be false or misleading. There is no causal link between the two and a Court should not be forced to create a link to infer a breach of the Rule. (p. 22)	
Reporting		
RWE	The late bidding report, coupled with the revised evidential standards under the behavioural statement of conduct, should lead to a meaningful increase in the ability to scrutinise and challenge late rebids which raise concerns. (p. 4).	The second draft rule replaces the requirement for all participants to submit late rebid reports with the obligation to provide, if the AER requests it, certain pieces of information on the reasons and circumstances surrounding any late rebid. The information requirements are set out in section 5.2.1. The Commission considers this would provide the AER with contemporaneous information about late rebids, increasing the AER's ability to scrutinise conduct of concern, while reducing the administrative burden on the AER and generators. See section 5.4.1.
MEU	MEU supports the requirement for additional reporting and considers that the AEMC should consult with the AER about the extent reporting requirements needed. (p. 13)	
ERM	Supports the proposed reporting requirement. However, the clause should be amended to allow an exemption from the new reporting requirement for all rebids consistent with category P – Plant. The vast majority of rebids made within the new late rebidding period will be for a plant related issue. If this is not allowed for, the compliance burden for generators will be onerous, and for reasons not related to the late rebidding problem to be solved. Late rebidding reports for issues already covered by Category P – Plant will provide little if any additional or substantive information to the AER regarding the cause of the rebid. The AER exemption process will obviously take some time and does not have a certain outcome. It would be preferable to hard wire the above relatively narrow exemption into the Rules. (pp1-2).	
SA Government	The proposed reporting requirements should assist in preventing generators from deliberately delaying rebids in order to preclude other participants from responding. However, the process should not be an overly difficult exercise which imposes a significant burden on generators where there is a definite need to make a late rebid. (p. 2)	
SACOSS	The proposed requirements are a good response to the problem as they mean that the AER will have the power to set clear guidance on what should be reported. (p.	

Stakeholder	Comment	AEMC response	
	2).		
AER	The proposed requirement for all participants to submit late rebid reports has the potential to create a heavy regulatory burden for the AER and participants. As an alternative, the AER proposes the requirement for participants to keep contemporaneous records of certain information pertaining to late rebids, which would be provided to the AER on request. (p. 3).	<p>The Commission acknowledges the regulatory burden imposed on the AER and generators by a blanket reporting requirement for late rebids. However, the Commission considers that the existing information gathering powers of the AER are inadequate to address the issue of deliberate late rebidding since there is no obligation for generators to preserve a contemporaneous record of events. That is, the AER is empowered to request information from generators, but has no recourse if those generators have failed to retain that information.</p> <p>The second draft rule replaces the requirement for all participants to submit late rebid reports with the obligation to provide, if the AER requests it, certain pieces of information on the reasons and circumstances surrounding any late rebid. The Commission considers this would provide the AER with contemporaneous information about late rebids while reducing the regulatory burden for the AER and market participants. See section 5.4.1.</p>	
Stanwell	Allowing the AER the ability to set parameters for the late rebidding reports circumvents NEM governance principles. (p. 1)		
Alinta	Alinta does not consider that “the rebidding problem” is material enough to warrant substantial changes to the NEM wide market reporting obligations. If enacted, additional reporting obligations would simply introduce unnecessary and onerous compliance obligations for traders, the financial costs of which are real and measureable. If enacted this would directly increase the compliance costs of market participants, which would ultimately flow back to consumers for little to no corresponding benefit. (p. 4)		
CS Energy	The AER could require significant amounts of information to be provided in the reports required under clause 3.8.22(c)(2a), which will have the effect of discouraging participants from making efficient rebids during this period. It is possible that there will be a significant increase in deadweight compliance costs. (p. 22) The reporting contents and exemption criteria should be made known through the Draft Rule, and for participants to have an opportunity to consult on the requirements in the same manner and at the same time as participants are consulting in response to the Draft Determination. (p. 23)		
GDF	An obligation to provide contemporaneous reports with information above and beyond the AER’s existing powers would create a significant administrative burden on generators. There has been no empirical or cost benefit analysis as to whether this would lead to efficiency gains (p. 4).		
ESAA	The AER already has extensive information collection powers. Using administrative costs to dissuade a		

Stakeholder	Comment	AEMC response
	generator from rebidding is unlikely to dissuade actions with malicious intent. However, it may stop efficiency enhancing rebids. (p. 3)	
EnergyAustralia	The proposed 'late rebid' reporting obligation is excessively burdensome, impractical and unnecessary. It would punish and dissuade thousands of efficient rebids, reducing efficiency, but have no significant impact on the targeted undesirable behaviour. (p. 2)	
Infigen Energy	As currently worded, the draft rule may have the effect of introducing a significant compliance burden and potentially discourage bidding that may have otherwise improved market conditions. Network constraints often limit the output of Infigen Energy's generation and are the cause of the vast majority of Infigen Energy's rebids. Since forecasts of constraints are often inaccurate and sometimes non-existent, Infigen Energy's rebidding must take place very near to or during the trading interval to which the rebid applies. (pp 1-2)	
Snowy Hydro	The compliance burden and cost of the late rebid report will be very high. The new reporting requirement would result, on average, in 81 reports being produced every day. This compliance burden will result in more conservative rebidding and limit the ability of generators to respond to dynamic and changing market conditions. (p. 2)	
Origin	The AER already has powers to require participants to provide written information on request and it has not demonstrated that these powers are insufficient. Additional reporting requirements will increase the compliance burden for participants by capturing all late rebids (p. 2), including physical or technical rebids, which are common (p. 5).	
Delta	The compliance burden posed by the reporting requirements is significant. As a longer term average Delta expects that the proposed reporting obligation would create the need for approximately 5 reports per day. (p. 2). It is not good policy to seek to change participant behaviour through 'red tape'. Efficiency enhancing rebids will be discouraged. The AER already has adequate information gathering powers. Allowing the AER to specify the content	

Stakeholder	Comment	AEMC response
	and format of the report allows too much discretion. (p. 3).	
AGL	The reporting obligations are unnecessary and would substantially increase regulatory burden. Generators are already required to provide contemporaneous explanations for rebids to AEMO and the AER has powers to request additional information to substantiate and verify the reason for a rebid. An alternative, workable approach would be to firm up requirements for recording information for each rebid. (p. 3)	The second draft rule replaces the requirement for all participants to submit late rebid reports with the obligation to provide, if the AER requests it, certain information on the reasons and circumstances surrounding any late rebid. The Commission considers this would provide the AER with contemporaneous information about late rebids while reducing the regulatory burden for the AER and market participants. See section 5.4.2.
Arrow	Peaking plant will be disproportionately burdened as it is inherently reactive to short term conditions. (p. 2).	The Commission considers that replacing the requirement to submit late rebid reports with a requirement to make contemporaneous records on late rebids reduces the administrative burden on all generators, including peaking plant. See section 5.4.2.
Visy	Visy questions the effectiveness of a reporting-only requirement as a disincentive against strategic late rebidding. Rebid reasons are already required under the current NER and the AER has powers to interrogate generator records, which many participants already keep. The reporting obligations under the draft rule are not overly burdensome – as mentioned above, many generators are already keeping records. If generators are frequently making rebids of a similar type and intent, they will likely be able to issue reports very similar in content. There could also be an exemption for certain types of rebids (pp. 7-8).	While the AER currently has the power to request information about rebids from generators, there is no obligation on generators to preserve that information. The Commission considers the second draft rule augments the ability of the AER and courts to address deliberate late rebidding by obliging generators to keep a contemporaneous record of circumstances surrounding late rebid. See section 5.4.2.