

Australian Energy Market Commission

DRAFT RULE DETERMINATION

National Electricity Amendment
(Bidding in good faith) Rule 2015

Rule Proponent

Minister for Mineral Resources and Energy (South Australia)

16 April 2015

RULE
CHANGE

Inquiries

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

E: aemc@aemc.gov.au
T: (02) 8296 7800
F: (02) 8296 7899

Reference: ERC0166

Citation

AEMC 2015, Bidding in good faith, Rule Determination, 16 April 2015, Sydney

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.

This work is copyright. The Copyright Act 1968 permits fair dealing for study, research, news reporting, criticism and review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included.

Summary of draft rule determination

The Australian Energy Market Commission (AEMC or Commission) has made a 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;
- the obligation not to mislead the market would need to be met by generators on an ongoing basis through a requirement that any variations to offers be made as soon as practicable; and
- additional reporting requirements would be imposed on 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.

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 generators make all bids and rebids in good faith. At the time of making the bid, the generator must have a genuine intention to honour that bid if the material conditions and circumstances upon which the bid is based remain unchanged.

The more preferable draft rule has been made following the Commission’s consideration of a rule change request made by the South Australian Minister for Mineral Resources and Energy, which proposes to:

- 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;
- 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

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 or bids of other participants.¹ The resulting dynamic process of participants learning and reacting to the actions of their competitors is an important part of a well-functioning market.

As such, the objective of the market is not necessarily to minimise cost in each and every dispatch interval but, rather, to allow the market to trend towards a longer-term equilibrium. In this way, rebidding drives competitive outcomes that reveal prices reflective of underlying demand and supply conditions, leading to economically efficient operation and investment over the long term.

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

While there will always be one generator that makes the last rebid for any given dispatch interval, the limited time available for some generators and demand-side participants may prevent an efficient equilibrium outcome from being achieved if these participants are unable to provide an efficient physical response.

In the short-term, strategic late rebidding behaviour by generators has the potential to result in inefficient price outcomes if high price plant is dispatched ahead of lower price plant or competitive demand responses that do not have sufficient time to change output. The reduced transparency and predictability of spot prices may also limit participation in the market, damaging competitive pressures on price outcomes.

Over the longer-term, spot prices which do not reflect underlying conditions of supply and demand will tend to reduce their effectiveness as production, consumption and investment signals. The inability of some generators, such as fast-response plant, to respond to strategic late rebids can also mean that spot price impacts affect the availability of price-reflective hedge products to the market. This may impact the efficiency of investment and result in higher costs being passed through to consumers.

Finally, late rebidding undertaken as part of a strategy of behaviour that is aimed at misleading competitors and promoting false expectations 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 short-term inefficient price outcomes.

¹ Over the last five years, AEMO has received between 6 and 8 million rebids annually across the NEM.

Materiality of the issues identified

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.

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 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.²

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 physically 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 draft rule

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 and in a way that 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.

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

² See Appendix B.

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 draft rule seeks to recast generators' offers as a continuing representation of their willingness to provide supply at the prices specified in them. As such, any rebid made to vary an offer³ to supply the market would need to be made as soon as reasonably practicable after the generator has formed the intention to make a rebid so that the original offer is not misleading with respect to the generator's intentions.

Compared to the current requirement that offers be made in good faith, the obligation in the 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. The Commission considers that this would assist with the interpretation of and practical application of the rules. The draft rule would further allow patterns of conduct to be considered. For example, a court might take into account, if relevant, repeated very late rebidding by a generator.

The draft rule would also introduce new reporting 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 provide a report to the AER setting out in detail the reasons for making the rebid at that time. Bids 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.

These late rebidding reports would provide additional information to the AER regarding rule compliance at times when rebidding has a higher probability of resulting in inefficient market outcomes. The obligation to provide the reports may also provide some incentive to participants to make rebids in a more timely manner. However, 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.

Comparison with the proposed rule

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 any rebids made to vary an offer to supply the market would need to

³ The provisions of the 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).

be made as soon as reasonably practicable after the generator has formed the intention to make a rebid. Both the proposed rule and the draft rule also 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.

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 bid.

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.

The Commission welcomes submissions on this draft determination, including the more preferable draft rule, by **11 June 2015**.

Summary comparison of market conduct provisions

Commission's draft rule	Rule proposed by the South Australian Government	Current rule
Participants must not make offers, bids or rebids that are false, misleading or likely to mislead	Participants must make offers, bids and rebids in good faith	Participants must make offers, bids and rebids in good faith
A bid or rebid would be misleading if, at the time of making the bid or rebid, the participant does not have a genuine intention to honour; and does not have a reasonable basis to represent that it will honour; that bid or rebid if the material conditions and circumstances upon which the bid or rebid are based remain unchanged until the relevant dispatch interval.	A bid or rebid would be taken not to be made in good faith unless, at the time of making the bid or rebid, the participant had a genuine intention to honour that bid or rebid if the material circumstances remain unchanged	A bid or rebid will be taken to be made in good faith if, at the time of making the bid or rebid, the participant has a genuine intention to honour that bid if the material conditions and circumstances upon which the bid is based remain unchanged
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 as soon as reasonably 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 variation to a bid or rebid must be made as soon as practicable after a change in material circumstances comes to the participant's attention	No specific obligations on timing
Whether a participant has a reasonable basis to represent that it will honour a bid or rebid may be inferred from its bidding behaviour with respect to all of its units and its previous patterns of behaviour	Allow the intention of a participant to be assessed by having regard to all of the bids and rebids that the participant has substantial control over	Bidding behaviour is assessed with respect to individual units. No references to patterns of conduct
No specific limitations on the material conditions and circumstances that may give rise to a rebid	A variation to a bid 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
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	Participants to provide the AER with accurate and complete data and information on request to substantiate compliance with the rule	No specific information or reporting requirements

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	Consultation on the draft determination	3
2	Draft rule determination	4
2.1	Rule making test.....	5
2.2	Assessment framework.....	5
2.3	The Commission's draft rule determination	6
2.4	Strategic priority.....	10
3	Efficient price discovery and late rebidding.....	11
3.1	The role of rebidding in the NEM.....	11
3.2	Market inefficiencies caused by late rebidding.....	15
3.3	The materiality of late rebidding in the NEM	21
4	A behavioural statement of conduct.....	28
4.1	Bidding behaviour and participant intentions.....	28
4.2	Overview of the draft rule	29
4.3	The South Australian Government's proposed rule	32
4.4	Reasons for the Commission's changes to the good faith provisions	40
4.5	Application of the draft rule	44
5	Reporting on rebids close to dispatch and the provision of information	45
5.1	Additional regulation of late rebidding	45
5.2	The draft rule	46
5.3	Application of the more preferable draft rule	52
	Abbreviations.....	54
A	Legal requirements under the NEL	55

A.1	Draft determination	55
A.2	Power to make the rule	55
A.3	Commission's considerations	55
A.4	Power to make a more preferable rule	55
A.5	Civil penalty provision.....	56
A.6	Others	56
B	The materiality of late rebidding in the NEM - summary of advice from ROAM Consulting and Oakley Greenwood	57
B.1	Late rebidding and the effect on market outcomes	57
B.2	The impact of late rebidding on the ability of participants to respond	65
C	Background to the rule change request	73
C.1	Rebidding in the NEM	73
C.2	History of the rebidding rules.....	74
C.3	The good faith provisions	75
C.4	The Federal Court case - AER v Stanwell	77
D	Summary of issues raised in submissions on the Consultation Paper.....	78
E	Summary of issues raised in submissions on the Options Paper.....	94

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 (proponent) 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.⁴

The NER requires that generators make all bids and rebids in good faith.⁵ A bid or rebid will be taken to be made in good faith if, at the time of making the bid, the generator has a genuine intention to honour that bid if the material conditions and circumstances upon which the bid is based remain unchanged.⁶ The good faith provisions were proposed by the National Electricity Code Administrator (NECA) and authorised by the Australian Competition and Consumer Commission (ACCC) in 2002.⁷ 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 proponent 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 proponent 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 proponent 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 bids 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.

⁴ South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013.

⁵ Clause 3.8.22A(a) of the NER.

⁶ Clause 3.8.22A(b) of the NER.

⁷ 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 proponent 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 bid 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 proponent 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 proponent considers that these changes to the NER would impose a greater incentive on generators to submit bids promptly that reflect their true intentions at the time of making the bid. 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.⁸ A summary of the issues raised in submissions and the Commission's response to each issue is contained in **Appendix D**.

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.

⁸ www.aemc.gov.au

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 considered the extension necessary due to the complexity of issues raised by the rule change request, as reflected in the extensive stakeholder submissions on the consultation paper and views expressed at the stakeholder forum.

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 E**.

1.5 Consultation on the draft determination

The Commission invites submissions on this draft determination, including its draft rule, by **11 June 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 **23 April 2015**.⁹

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
PO Box A2449
SYDNEY SOUTH NSW 1235

⁹ 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.

2 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 taken to be false or misleading, if at the time of making it, a participant:
 - does not have a genuine intention to honour the offer, bid or rebid; and
 - does not have a reasonable basis to represent to other market participants, through the pre-dispatch schedules published by AEMO, that it will honour the offer, bid or rebid;
- if the material conditions and circumstances upon which the offer, bid or rebid are based remain unchanged until the relevant dispatch interval;
- if a participant forms an intention to make a rebid, it must do so as soon as reasonably practicable after it becomes aware of the change in material conditions and circumstances on the basis of which it decides to vary its offer, bid or rebid; and
- 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 participant must provide a report to the AER setting out in detail the material conditions and circumstances giving rise to the rebid, its reasons for the rebid, and its justification that the rebid was made as soon as reasonably practicable.

The draft rule is attached to and published with this draft determination. Having regard to the issues raised in the rule change request and by stakeholders, the Commission is satisfied that the 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).¹⁰

The NEO states:¹¹

“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.¹²

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 bid in accordance with their genuine intentions and to bid on the basis of significant and quantifiable changes in material conditions and circumstances.

¹⁰ See section 88(1) of the NEL.

¹¹ See section 7 of the NEL.

¹² See section 91A of the NEL.

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.

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 draft rule determination

In the development of its 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.

In this way, rebidding drives competitive outcomes that reveal prices reflective of underlying demand and supply conditions, leading to economically efficient operation and investment over the long term.

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, the short timeframes may prevent the learning process from reaching an efficient equilibrium 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 a bid or rebid is made in good faith is only based on the generator's intentions at the time the bid 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 bid or rebid at the time it is made, the obligations of the good faith provisions are satisfied.

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 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 draft rule

Having regard to the issues raised by the rule change request, the proposed rule and stakeholder comments, the Commission has decided to make a draft rule that is a more preferable draft rule.

The draft rule requires that participants must not make bids or rebids that are false or misleading. A bid or rebid would be misleading if, at the time of making the bid or rebid, the participant does not have a genuine intention to honour, and does not have a reasonable basis to represent that it will honour, that bid or rebid if the material conditions and circumstances upon which the bid or rebid are based remain unchanged until the relevant dispatch interval.

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 continuing 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.

A bid or rebid will be taken to be misleading if the generator does not have a reasonable basis to represent to other market participants, through the pre-dispatch schedules published by AEMO, that it will honour its bid or rebid if the material conditions and circumstances upon which it was based remain unchanged.

In determining whether a generator has a reasonable basis to represent that it will honour its bid 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 Commission has proposed that the rules require that the generator makes the rebid as soon as reasonably 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 reasonably practicable upon a change in intentions should provide for more accurate, reliable and timely information to 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 provide a report to the AER setting out in detail the change in material conditions and circumstances giving rise to the rebid, its reasons for the rebid, and its justification that the rebid was made as soon as reasonably practicable. Bids 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 5.3.

A requirement to provide a detailed report to the AER for rebids that are made close to dispatch should provide the AER with information to assist in its consideration of whether a possible breach of clause 3.8.22A of the NER may have occurred. The additional reporting requirement should also reduce the incentives on generators to make late rebids that are intended to limit the opportunity for other participants to respond.

These additional requirements on market participants in relation to the timing and reporting of 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 draft rule to require that rebids are submitted as soon as reasonably 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 proponent, 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 proponent's proposal for the provision of complete and accurate information to the AER on the reasons for bids and rebids. One opportunity to provide all relevant information to the AER which may subsequently be the subject of 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.

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 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 draft rule contributes to the Market Priority by ensuring that investment decisions 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 ensure that, to the greatest extent possible, investors make decisions based on commercial factors, which would promote the efficient operation of the market and contribute to efficient outcomes that minimise costs for consumers.

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.¹³ 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 bids 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 bids 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 bids, 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.

¹³ 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.

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, 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.¹⁴

- 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 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.

¹⁴ Professor George Yarrow and Dr Chris Decker (Regulatory Policy Institute), *Bidding in energy-only wholesale electricity markets*, December 2014, pp. 18-19.

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 bids. The incentives that unrestricted rebidding can have on the provision of less meaningful initial bids can also provide opportunities for generators to mislead other participants. This could arise from actions that, through the initial bid, influence the expectations of other participants. An initial bid 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 bids 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 proponent'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 proponent 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.¹⁵

However, the proponent 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.¹⁶

The proponent 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.¹⁷ The proponent 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.

¹⁵ South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013, p. 1.

¹⁶ Ibid, p. 6.

¹⁷ Ibid, p. 16.

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.¹⁸ 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.¹⁹ 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.²⁰

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 functioning market need not deliver efficient outcomes in every single dispatch interval.²¹

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.²² 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.²³

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.²⁴ The Energy Supply Association of Australia (ESAA)

¹⁸ 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.

¹⁹ RWEST, submission on the options paper, p. 2.

²⁰ See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 4; GDF Suez, p. 3.

²¹ 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.

²² 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.

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

²⁴ GDF Suez, submission on the options paper, p. 4.

considered that the slow responsiveness of baseload plant means that they are unable to avoid negative market price outcomes when they occur.²⁵

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.²⁶ 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.²⁷

The ESAA, Origin Energy, and EnergyAustralia suggested that responses over the longer-term are also important. Trading periods do not happen in isolation and that the repetitive cycle of bidding provides opportunities for learning, prediction and adjustment.²⁸ EnergyAustralia suggested that 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.²⁹

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.³⁰ 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.³¹ 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.

²⁵ ESAA, submission on the options paper, p. 3.

²⁶ See submissions on the options paper from: Origin Energy, p. 3; EnergyAustralia, p. 3.

²⁷ EnerNOC, submission on the options paper, p. 7.

²⁸ See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 4; EnergyAustralia, p. 3.

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

³⁰ AGL, submission on the options paper, p. 5.

³¹ InterGen, submission on the options paper, pp. 2-3.

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.³²

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.³³

Contract market impacts

A number of participants considered that, regardless of the accuracy of pre-dispatch forecasts, there are efficient commercial strategies available to market participants to manage these market risks.³⁴ EnergyAustralia suggested that the most important tool for retailers, generators and other market customers to manage the risk of market volatility is forward contracting.³⁵ 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.³⁶ 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.³⁷

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.³⁸ 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

³² Stanwell, submission on the options paper, pp. 7, 18.

³³ See submissions on the options paper from: EnergyAustralia, p. 3; GDF Suez, p. 5.

³⁴ See submissions on the options paper from: EnergyAustralia, p. 3; InterGen, pp. 2-3; Alinta Energy, pp. 4-5; GDF Suez, p. 3.

³⁵ EnergyAustralia, submission on the options paper, p. 3.

³⁶ GDF Suez, submission on the options paper, p. 3.

³⁷ InterGen, submission on the options paper, pp. 2-3.

³⁸ RWEST, submission on the options paper, p. 5.

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.³⁹ 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.⁴⁰ 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.

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

³⁹ See submissions on the options paper from: Snowy Hydro, pp. 5-6; GDF Suez, p. 5.

⁴⁰ ERM Power, submission on the options paper, p. 2.

start hydro or diesel generators.⁴¹ In support, Stanwell noted the recent decisions by some participants to invest in shorter response times for generating plant.⁴²

However, a number of participants considered that the price impacts of late rebidding do not amount to efficient price signals for investment.⁴³ 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.⁴⁴ 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.⁴⁵

3.2.3 The Commission's response

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.

This is also true 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

⁴¹ Snowy Hydro, submission on the options paper, p. 3.

⁴² Stanwell, submission on the options paper, p. 7.

⁴³ 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.

⁴⁴ ERM Power, submission on the options paper, p. 4.

⁴⁵ EnerNOC, submission on the options paper, p. 2.

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.

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 could increase costs to consumers if the price of hedge contracts are influenced by inefficient pool price outcomes caused by late rebidding.

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.

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.

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 result in higher pass-through costs to customers.

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 previous analysis is provided along with stakeholders' views and the Commission's response.

3.3.1 The Commission's analysis

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. 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**. 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 spikes in pre-dispatch forecasts and reducing anticipated market volatility, the recent late bidding behaviour in Queensland and South Australia has resulted in price spikes, specifically towards the end of 30-minute trading intervals.

The Commission also recognises that much of the impact on participants from late rebidding behaviour may in fact occur through the consequential effects on the prices of financial hedge contracts.

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.

3.3.2 Stakeholder submissions

The materiality of late rebids

Submissions from stakeholders contained contrasting views regarding the extent that late rebidding has shown to be a problem in the NEM.

There was a 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.

A number of participants considered that the occurrence of late rebidding has arisen from the unique conditions in Queensland and South Australia, which appears to be

isolated in both time and location.⁴⁶ 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.⁴⁷ 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.⁴⁸

However, an alternative view taken by Visy and Arrium is that similar conduct 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.⁴⁹ ERM Power emphasised that it is the fact that late rebidding behaviour can occur, rather than evidence of whether it has occurred, that justifies a more meaningful enforcement approach.⁵⁰

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.⁵¹ 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.⁵² Transient pricing power is only a concern if it occurs frequently enough and to a significant magnitude to lead to average annual wholesale prices being above the long-run marginal cost of new entrant generation.⁵³

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.⁵⁴ AGL cited the analysis undertaken by AEMO to examine the

⁴⁶ See submissions on the options paper from: Alinta Energy, p. 4; AGL, p. 2; Energy Australia, p. 2; Origin Energy, p. 3.

⁴⁷ AGL, submission on the options paper, pp. 1-2.

⁴⁸ GDF Suez, submission on the options paper, p. 6.

⁴⁹ See submissions on the options paper from: Visy, p. 1; Arrium, p. 1.

⁵⁰ ERM Power, submission on the options paper, p. 4.

⁵¹ See submissions on the options paper from: Origin Energy, p. 2; ESAA, p. 1; InterGen, p. 2; Snowy Hydro, p. 3.

⁵² Origin Energy, submission on the options paper, p. 2.

⁵³ ESAA, submission on the options paper, p. 1.

⁵⁴ See submissions on the options paper from: ESAA, p. 1; InterGen, p. 2; GDF Suez, p. 6; Stanwell, p. 13; Origin Energy, p. 2.

impact of late rebids on annual average price outcomes as evidence of this low materiality.⁵⁵ InterGen considered that contract prices have also been on average materially below the LRMC of new entrant generation.⁵⁶

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.⁵⁷ 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.⁵⁸

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.⁵⁹ 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.⁶⁰

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.⁶¹ 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 being removed.⁶² 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

⁵⁵ 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.

⁵⁶ InterGen, submission on the options paper, p. 2.

⁵⁷ RWEST, submission on the options paper, pp. 2-3.

⁵⁸ Q Energy, submission on the options paper, pp. 5-6.

⁵⁹ Visy, submission on the options paper, p. 7.

⁶⁰ ERM Power, submission on the options paper, p. 4.

⁶¹ EnerNOC, submission on the consultation paper, pp. 3-4.

⁶² EnerNOC, submission on the options paper, p. 1.

been the benign market conditions and lack of volatility brought on by the oversupply in the market.⁶³

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.⁶⁴ 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.⁶⁵

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.⁶⁶ 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.⁶⁷

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.

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

⁶³ See submissions on the options paper from: Origin Energy, p. 3; EnergyAustralia, p. 2.

⁶⁴ 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.

⁶⁵ Q Energy, submission on the options paper, p. 6.

⁶⁶ See submissions on the options paper from: Origin Energy, p. 3; ESAA, p. 5; GDF Suez, p. 6; Stanwell, p. 10.

⁶⁷ SACOSS, submission on the options paper, p. 1.

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.⁶⁸

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".⁶⁹

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.

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

⁶⁸ 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).

⁶⁹ AEMC, *National Electricity Amendment (Negative offers from SNSPs) Rule 2013*, p. 28.

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 draft rule which amends the existing good faith provisions. The Commission's reasons for the draft rule are discussed in the context of the existing good faith provisions and the changes that were proposed as part of the rule change request.

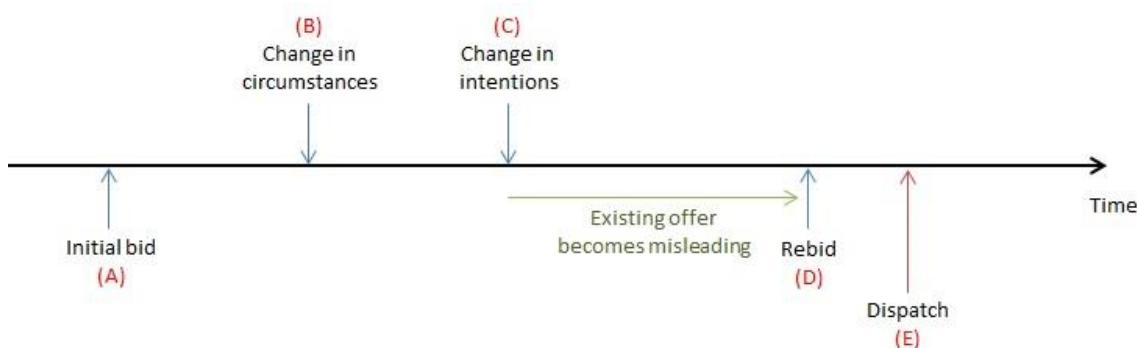
4.1 Bidding behaviour and participant intentions

As set out in Chapter 3, generators 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 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 in market circumstances (B). The generator may subsequently change its intentions upon becoming aware of the change in circumstances (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 continuing representation of the generator's willingness to provide supply at the prices it has specified for so long as the offer remains unamended. 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 bid or rebid at the time it was made.

The existing good faith provisions do not prohibit a generator 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.

As long as there is a genuine intention to honour the bid 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 bid 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.

4.2 Overview of the draft rule

This section provides an overview of the Commission's proposed changes to the good faith provisions. A further discussion of the reasons for the changes, including the reasons for not making the proposed rule, is provided in section 4.4.

4.2.1 Misleading bidding

The Commission has determined to amend clauses 3.8.22A(a) and (b) of the NER by recasting the provisions from imposing an "in good faith" obligation to imposing an obligation to not make offers, bids or rebids that are false, misleading or likely to mislead. An offer, bid or rebid would be taken 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; and
2. does not have a reasonable basis to represent to 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 upon which the offer, bid or rebid are based remain unchanged until the relevant dispatch interval.

The Commission proposes that the obligation 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).

The Commission has also proposed to amend clause 3.8.22(c) to provide that a participant may be taken to have breached provisions 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 in relation to which it had substantial control;
2. the knowledge, belief, intention, or conduct of the generator or any other person, including any patterns of conduct;
3. information published by AEMO to the generator; and
4. any other relevant circumstances.

In addition, in determining whether a participant had a reasonable basis to represent to other market participants that it would honour its offer, bid or rebid, a court must have regard to the market design principles set out in clause 3.1.4(a)(2).

To give effect to this, the Commission has determined to include additional wording in clause 3.1.4(a)(2) of the NER to elaborate on the objective 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.

The Commission considers that by recasting clause 3.8.22A(a) and (b) from an "in good faith" obligation to an obligation that offers, bids and rebids not be false, misleading or likely to mislead, the rules would treat all bids and rebids as a continuing representation of a generator's intentions to supply electricity at particular prices. If a generator were to change its intentions for dispatch, and wished 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.

A bid or rebid will also be taken to be false, misleading or likely to mislead if the generator does not have a reasonable basis to represent to other market participants, through pre-dispatch schedules published by AEMO, that it will honour its bid or rebid if the material conditions and circumstances upon which it was based remain unchanged.

In order to determine the extent to which the generator had a reasonable basis to represent to other market participants that it will honour its bid or rebid, a court must have regard to the market design principle in clause 3.1.4(a)(2). In addition, a court could find that a market participant had contravened clause 3.8.22A(a) even if the false or misleading character of the offer, bid or rebid is ascertainable only by inference from:

- rebids made by the generator;
- information published by AEMO to the generator;
- other conduct of the generator (including any patterns of conduct) or other person; and
- the knowledge, belief or intention of the generator or any other person.

Therefore, a generator might be found not to have had a reasonable basis to represent that it would honour its bid or rebid if that generator has a prior pattern of behaviour of repeatedly failing to honour its offers absent a change in material conditions and circumstances.

4.2.2 Rebidding as soon as reasonably practicable

The Commission has determined to include a new obligation on participants 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 decides to vary its offer, or bid. In determining whether a rebid was made as soon as reasonably practicable, a court must have regard to:

1. the market design principles set out in clause 3.1.4(a)(2); and
2. whether the rebid was made in sufficient time to provide 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.

This should encourage generators' offers to remain at all times reflective of their true intentions for dispatch and do not become misleading.

4.3 The South Australian Government's proposed rule

This section provides an overview of the proponent's proposed changes to the good faith provisions, including stakeholders' views on the proposed changes and the Commission's response.

4.3.1 Overview of the South Australian Government's proposed changes to the good faith provisions

The proponent's proposed changes to the NER would:⁷⁰

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 a bid 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 a bid 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 bids and rebids that the participant has substantial control over.

4.3.2 The proponent's view

Recasting the provisions in the negative

The proponent 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 proponent 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 proponent 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 proponent considers that, if a generator makes

⁷⁰ South Australian Minister for Mineral Resources and Energy, *Rule change request – bidding in good faith*, 13 November 2013, pp. 10-14.

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

The proponent 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 proponent 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 proponent 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 proponent 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 proponent 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 proponent 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 proponent 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 proponent 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 a bid or rebid. If there is a change to any of those material circumstances, to reflect those changes in rebids as soon as practicable.⁷¹

The proponent 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.

The proponent 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 proponent 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.

4.3.3 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.⁷² The National Generators Forum (NGF) suggested that the high standard of generator rebidding compliance has been evidenced by the fact that in 12 years of good faith bidding there has only been one court action and nine fines issued despite an enormous number of rebids and a significant number of AER requests for additional information.⁷³ Origin Energy suggested that one failure to secure a conviction does not lead to the conclusion that the existing provisions are inadequate.⁷⁴

AGL considered that changes to the good faith provisions 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.⁷⁵ This uncertainty might mute their confidence to respond to changing market and

⁷¹ South Australian Minister for Mineral Resources and Energy, *Rule change request – bidding in good faith*, 13 November 2013, pp. 11-12.

⁷² 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.

⁷³ NGF, submission on the consultation paper, p. 4.

⁷⁴ Origin Energy, submission on the options paper, p. 4.

⁷⁵ AGL, submission on the options paper, p. 4.

operational conditions and participate actively in the price discovery process, thereby negatively impacting the realisation of efficient market outcomes.

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.⁷⁶ ERM Power questioned the enforceability of the existing provisions given that the legal interpretation relies on the intention of the trader when making a bid or rebid.⁷⁷ It is difficult to prove that an individual's intent to honour a bid was any different from what the individual said it was. 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.⁷⁸

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.⁷⁹

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.⁸⁰ 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.⁸¹

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.⁸²

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.⁸³ However, RWEST equally did not support the exclusion of subjective expectations as a reason for

⁷⁶ 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.

⁷⁷ ERM Power, submission on the options paper, pp. 5-6.

⁷⁸ RWEST, submission on the options paper, p. 4.

⁷⁹ See submissions on the options paper from: RWEST, p. 4; ESAA, p. 4; Stanwell, p. 6.

⁸⁰ ESAA, submission on the options paper, p. 4.

⁸¹ EnerNOC, submission on the options paper, p. 3.

⁸² AGL, submission on the options paper, p. 3.

⁸³ RWEST, submission on the options paper, p. 4.

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 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.⁸⁵

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.⁸⁶

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.⁸⁷ 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.⁸⁸

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.⁸⁹ ERM Power and GDF Suez suggested that such a proposal would be inconsistent with the objective of light-handed regulation.⁹⁰

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

⁸⁴ Alinta Energy, submission on the options paper, p. 3.

⁸⁵ Alinta Energy, submission on the options paper, p. 8.

⁸⁶ See submissions on the consultation paper from: Arrow Energy, p. 3; Alinta Energy, p. 3.

⁸⁷ 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.

⁸⁸ InterGen, submission on the consultation paper, p. 3.

⁸⁹ CS Energy, submission on the consultation paper, p. 8.

⁹⁰ ERM Power, submission on the options paper, p. 1; GDF Suez, submission on the consultation paper, p. 3.

rebid is made.⁹¹ 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.⁹²

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 occurrence of the last circumstance being relied on in the combination.⁹³ 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.

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 bids and rebids at the time they are made, thereby leaving clause 3.8.22A as a general "good faith" obligation.⁹⁴ Alinta Energy suggested that this would increase the simplicity of the existing provisions and remove the current issues associated with how to interpret whether a "change" has occurred, and whether such a change was "material".⁹⁵

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 susceptible to being ineffectual.⁹⁶ 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.

The potential ineffectiveness of a general "good faith" obligation is a view also shared by the Major Energy Users (MEU) and AEMO.⁹⁷ AGL suggested that there is a risk that it would only serve to introduce uncertainty amongst traders and generators, who

⁹¹ Alinta Energy, submission on the consultation paper, p. 5.

⁹² InterGen, submission on the consultation paper, p. 3.

⁹³ SA Government, submission on the options paper, p. 5.

⁹⁴ 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.

⁹⁵ Alinta Energy, submission on the options paper, p. 3.

⁹⁶ Visy, submission on the options paper, p. 19.

⁹⁷ See submissions on the options paper from: AEMO, p. 4; MEU, p. 3.

have grown familiar with the existing market rules and the framing of the good faith obligations.⁹⁸

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.⁹⁹ RWEST noted that the provisions of the *Corporations Act 2001* which regulate the behaviour of participants in financial markets also 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.¹⁰⁰

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.¹⁰¹ 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 levels of price volatility which is necessary to provide required operational and investment signals.¹⁰²

RWEST suggested that the behavioural statement of conduct should focus on the behaviours themselves, and consequent impacts, rather than on the mind-set of the trader.¹⁰³ 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.¹⁰⁴

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.¹⁰⁵ Visy suggested that a successful prosecution will inevitably come after the damage is done and may not be successful in deterring

⁹⁸ AGL, submission on the options paper, p. 4.

⁹⁹ See submissions on the options paper from: RWEST, p. 4; QGC, p. 2; ERM Power, p. 6.

¹⁰⁰ ERM Power, submission on the options paper, p. 6.

¹⁰¹ See submissions on the options paper from: RWEST, p. 7; ERM Power, p. 6.

¹⁰² AEMO, submission on the options paper, p. 4.

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

¹⁰⁴ Visy, submission on the options paper, p. 20.

¹⁰⁵ Visy, submission on the options paper, p. 12.

similar behaviour in the future depending on how clear and decisive the court's findings are. This concern was also raised by QGC.¹⁰⁶

4.3.4 The Commission's view

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.

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 a bid 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 bid or rebid.

¹⁰⁶ QGC, submission on the options paper, p. 2.

4.4 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.

4.4.1 Misleading bidding

The Commission's principal concern with the existing good faith provisions is that the assessment of whether a bid or rebid is made in good faith is only based on the generator's intentions at the time the bid 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 rebid. As long as there is a genuine intention to honour the bid 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 bids 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 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. 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 draft determination to amend the existing good faith provisions would treat a generator's offers as a continuing representation of the generator's intentions to supply electricity at particular prices. If a generator were to change its intentions for dispatch, and wished to make a rebid to reflect its changed intention, then its existing offer would become misleading until it actually made such a rebid.

By treating a generator's offer as a continuing representation, the provisions would address instances where the generator made a bid or rebid that it would or could not honour, as well as instances where it had a genuine intention to honour its bid or rebid but then subsequently changed its intentions and wished to make a rebid but did not do so as soon as reasonably practicable.

The Commission considers that its draft changes to the good faith provisions 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 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 bid 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 bid or rebid. The generator may in fact have had a genuine intention to honour its previous bid 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 bid.

4.4.2 A reasonable basis for representation

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 bid 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 bid 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.

The Commission's draft rule does not limit the circumstances in which a generator may be found to have made a false or misleading offer, bid or rebid. However, the draft rule provides that an offer, bid or rebid will be *taken to be* false or misleading if, at the time of making such an offer, bid or rebid, the generator:

- does not have a genuine intention to honour; and
- does not have a reasonable basis to represent to other market participants, through the pre-dispatch schedules provided by AEMO, that it will honour

that offer, bid or rebid if the material conditions and circumstances upon which it was based remain unchanged until the relevant dispatch interval. 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 draft rule would include additional wording in the market design principles set out in chapter 3 of the NER. The draft rule amends clause 3.1.4(a)(2) which provides that Chapter 3 should give effect to the market design principle that there should be the maximum level of market transparency in the interests of achieving a very high degree of market efficiency. Under the draft rule, this principle is elaborated on to make clear that a key aspect of this market transparency is 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.

Additional wording has also been included in rule 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 court would therefore be able to infer in certain circumstances that a generator did not have either a genuine intention to honour, or a reasonable basis to represent to other market participants that it would honour, its original offer or rebid. This is particularly relevant in the case where a generator deliberately delays in making a rebid until close to dispatch in order to exploit the limited opportunity of other participants to respond. 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.

In determining whether a generator had either a genuine intention to honour its offer or rebid, or a reasonable basis to represent that it would honour its offer or rebid, the Commission's draft rule would also allow for an inference to be drawn from other offers 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 bids and rebids that the participant has substantial control over.

4.4.3 Rebidding as soon as reasonably 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 became 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 wished 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 market participant to make a rebid as soon as reasonably 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 reasonably practicable upon a change in intentions 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.

As part of its rule change request, the proponent 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 proponent 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.¹⁰⁷

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 reasonably practicable upon changing its intentions with respect to dispatch, the Commission has proposed to include additional wording in clause 3.8.22A of the NER to provide that a court must take into account certain additional considerations. These considerations include the market design principle in clause 3.1.4(a)(2) of the NER as well as whether the rebid was made within 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.

¹⁰⁷ South Australian Minister for Mineral Resources and Energy, *Proposed rule change – bidding in good faith*, 13 November 2013, pp. 10-14.

4.5 Application of the draft rule

As with the existing good faith provisions, the Commission will be recommending 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 this provision 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 generator 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:¹⁰⁸

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

¹⁰⁸ See section 64 of the NEL.

5 Reporting on rebids close to dispatch and the provision of information

This chapter sets out the Commission's draft rule to apply an obligation on market participants to report on rebids made during, or less than 15 minutes before the commencement of, the trading interval to which the rebid applies. The Commission's reasons for the draft rule are discussed in the context of the additional information requirements that were proposed as part of the rule change request.

5.1 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.

Consistent with the current condition of market monitoring, an alternative to placing restrictions on rebids close to dispatch would be to increase the reporting requirements on generators. 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 report to be provided 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 inefficient market outcomes.

5.2 The draft rule

This section sets out the Commission's proposed changes to the 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.

5.2.1 Overview of the Commission's proposed changes

The Commission's draft rule requires that, 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 must provide a report to the AER setting out in detail the reasons for making the rebid at that time. Bids 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. The timing of this reporting obligation is discussed further in section 5.3.

The late rebid report 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 be an obligation under the NER. The specific content and format of the report would be determined and specified by the

AER in its Rebidding and Technical Parameters Guideline. At a minimum, the report would include a description of the nature of the relevant change, how the change relates to the generator and the reasons for making the rebid, the time at which the change occurred, and the time at which the generator became aware of the change. As such, the content of the report would be expected to be substantially more comprehensive than the brief, verifiable and specific reason that participants are currently required to provide with each rebid submitted.¹⁰⁹

The Commission considers that the requirement to submit a detailed report for each rebid made close to dispatch is 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.

In considering whether to make a rebid close to dispatch, the rebidding generator would need to consider the trade-off between the necessity of the rebid and the requirement to prepare a detailed report. The generator would be able to avoid the reporting requirement by submitting their rebid to be effective from the start of a later trading interval.

The NER would not prohibit any specific rebids. This would 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.

5.2.2 The South Australian Government's proposed changes

The proponent did not advocate imposing restrictions on rebidding close to dispatch, as it considered that there may be changes in market circumstances where it would be acceptable to respond by rebidding.¹¹⁰ The proponent suggested, in its submission on the options paper, that while such a mechanism may provide sufficient time for demand side to respond, it would not by itself overcome behavioural issues that cause inefficiencies.¹¹¹

However, as discussed in Chapter 4, the proposed rule did include a requirement for a participant to rebid as soon as practicable after the change comes to its attention. The proponent considered that this would mean that rebids are made in a timely manner but would not restrict generators from rebidding when there is a genuine need to do so.

Further, the proposed rule included a requirement for participants to provide the AER with accurate and complete data and information on request to substantiate compliance. This change to the NER was proposed to ensure that the AER is provided with all relevant information with which to establish its case prior to any court proceedings. The proponent suggested that it is not appropriate for a participant to use

¹⁰⁹ See clause 3.8.22(c)(2) of the NER.

¹¹⁰ South Australian Minister for Mineral Resources and Energy, *Proposed rule change - bidding in good faith*, 13 November 2013, p. 12.

¹¹¹ SA Government, submission on the options paper, p. 5.

reasons to justify its bids and rebids at a later date that were not provided to the AER during the investigation stage.

Further, the proponent considered that participants should already be keeping records of the reasons for rebids and so this should not impose a significant additional burden of compliance.

5.2.3 Stakeholder submissions

Restricting rebids close to dispatch

A number of stakeholders were not in support of any form of restrictions on rebidding close to dispatch.¹¹² 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.¹¹³ 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.¹¹⁴ 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.¹¹⁵

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.¹¹⁶ 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.¹¹⁷ 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.¹¹⁸

¹¹² 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.

¹¹³ Snowy Hydro, submission on the options paper, p. 6.

¹¹⁴ AGL, submission on the options paper, p. 5.

¹¹⁵ Origin Energy, submission on the options paper, p. 4.

¹¹⁶ EnerNOC, submission on the options paper, p. 5.

¹¹⁷ 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.

¹¹⁸ ERM Power, submission on the options paper, p. 7.

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.¹¹⁹

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 interval.¹²⁰ 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.¹²¹

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.¹²² 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.¹²³

Additional reporting

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.¹²⁴ The inclusion of an additional reporting requirement in the NER is also supported by the MEU who suggested that reporting would increase the ability of the AER to identify and then prove that a generator is misusing the rebidding rules to its advantage.¹²⁵ 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.

Alinta Energy suggested that arrangements that would permit late rebids but with additional reporting requirements would place an onerous compliance burden on participants.¹²⁶ Origin Energy considered that this compliance burden may result in more conservative rebidding which would limit the ability of generators to respond to changing market conditions.¹²⁷

¹¹⁹ See submissions on the options paper from: SACOSS, p. 2; MEU, p. 6; Visy, p. 5; EnerNOC, p. 9; Arrium, p. 2.

¹²⁰ MEU, submission on the options paper, p. 6.

¹²¹ EnerNOC, submission on the options paper, p. 9.

¹²² Visy, submission on the options paper, p. 5.

¹²³ Arrium, submission on the options paper, p. 2.

¹²⁴ AEMO, submission on the options paper, p. 5.

¹²⁵ MEU, submission on the options paper, pp. 4-5.

¹²⁶ Alinta Energy, submission on the options paper, p. 6.

¹²⁷ Origin Energy, submission on the options paper, p. 5.

Provision of complete and accurate information

The AER agreed with the proponent's proposal that participants should be required to provide accurate and complete data and information on request to substantiate compliance.¹²⁸ 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.¹²⁹ 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.¹³⁰

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.¹³¹ The provision of complete information should not fall under the same high civil penalty.

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

The Commission acknowledges the opposing views that have been raised by stakeholders with respect to the effectiveness of restricting rebids close to dispatch. While such an approach would inhibit the ability of participants to submit late rebids that exploit the limited opportunity of other participants to respond, it would also inevitably limit rebids close to dispatch which have the potential to result in more efficient market outcomes.

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. As such, 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 reasonably practicable upon changing their intentions with respect to dispatch. It is not in the long term interests of consumers for generators to deliberately delay in

¹²⁸ AER, submission on the consultation paper, p. 12.

¹²⁹ 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.

¹³⁰ See submissions on the consultation paper from: Origin Energy, pp. 6-7; EnergyAustralia, pp. 3-4; InterGen, pp. 2-3.

¹³¹ GDF Suez, submission on the consultation paper, pp. 3-4.

making rebids in the knowledge that other participants will have insufficient time to undertake a competitive response.

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 report which sets out the change in material conditions 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 reasonably practicable, or whether the generator deliberately delayed in making its rebid in the knowledge that other participants would have limited time to respond.

Late rebid reports 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.

The Commission recognises that the format and content of the reports 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 report 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 straight forward then the report may be less extensive.

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 bids and rebids. 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.

Further, the Commission is concerned that the 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 would impose a significant regulatory obligation on participants, particularly given the level of potential penalty involved.

The Commission recognises that its proposed additional reporting requirement 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 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.

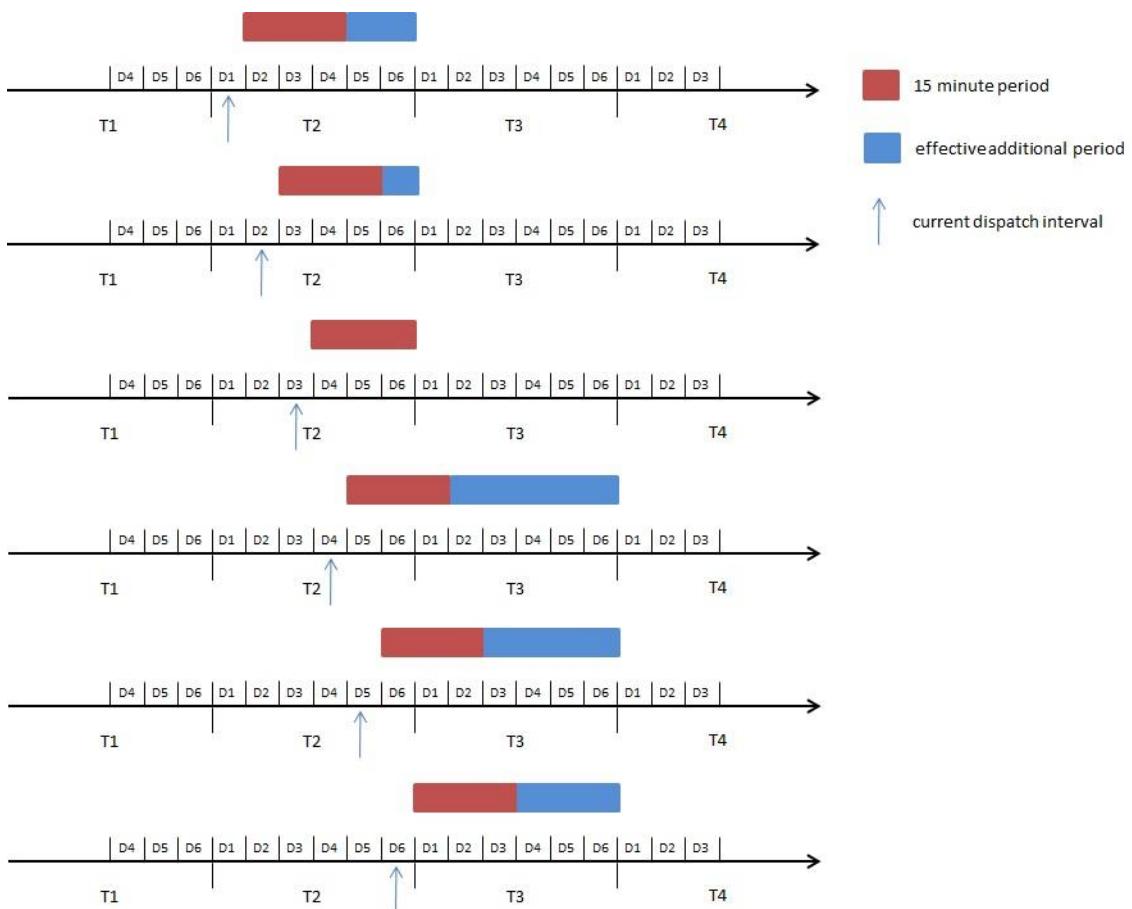
In many cases, the financial benefit to the generator from deliberately delaying in making rebids until close to dispatch is not guaranteed, and the requirement to prepare and submit a report may be sufficient to dissuade the generator from engaging in such behaviour. In addition, where there is a definite need to submit a rebid close to dispatch, such as a unit tripping, the reporting requirement 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.

5.3 Application of the more preferable draft rule

As discussed in section 5.2.1, the new reporting requirements would be an obligation in the NER. A report would be required to be prepared by the generator and submitted to the AER for each rebid that is made close to dispatch. A report would be required 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 submit a report.

Figure 5.1 shows how the timing of the reporting 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 reporting 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 reporting obligation effectively applies to the entire trading interval. This additional period is represented by the blue bar and applies an effective reporting 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 reporting obligation



A benefit of this approach is that it would not require a major change to AEMO's systems. AEMO would provide notification to 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 AER would specify the timing for when the report would need to be submitted.

The specific content and format of the reports will be determined and specified by the AER in its Rebidding and Technical Parameters Guideline. At a minimum, all late rebid reports would include a description of the nature of the relevant change in conditions and circumstances, how the change relates to the generator and the reasons for making the rebid, the time at which the change occurred, and the time at which the generator became aware of the change.

The Commission considers that the AER should have discretion to determine the rebids to which the reporting obligation would apply. Therefore, the Commission has included a provision in the NER that enables the AER to exempt a participant or class of participants from the obligation to submit a report if the AER thinks this is appropriate.

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
TPA	Trade Practices Act 1974

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 section 99 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;¹³²
- submissions received during first and second round consultation; 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

¹³² 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.

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.

As discussed in Chapter 2, the Commission has determined to make 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 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 draft rule introduces new clause 3.8.22(c)(2a).

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), with the inclusion of clause 3.8.22(c)(2a) continue to be classified as civil penalty provisions in the Regulations. This is because this will encourage relevant parties to comply with these provisions.

The Commission's 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 draft rule introduces clause 3.8.22A(d). If the Commission makes a final rule in the form of the 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.¹³³ The more preferable draft rule is compatible with AEMO's declared network functions because it does not affect AEMO's performance of those functions.

¹³³ AEMO's declared network functions are specified in section 50C of the NEL.

B The materiality of late rebidding in the NEM - summary of advice from ROAM Consulting and Oakley Greenwood

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 and Oakley Greenwood.

This appendix reproduces 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.

B.1 Late rebidding and the effect on market 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.¹³⁴

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.

¹³⁴ AEMC, *National Electricity Amendment (Bidding in good faith) Rule 2014 – Options Paper*, 18 December 2014, pp. 81-82.

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 table B.1.

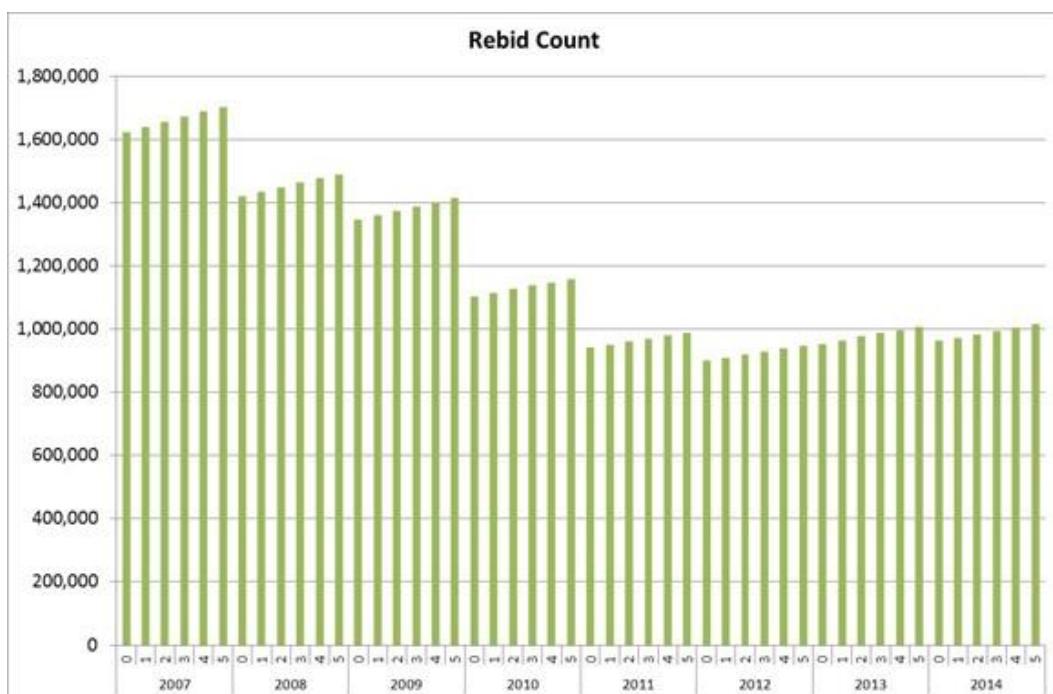
Table B.1 Illustrations of statistical significance

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.1 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.1 Count of all rebids that apply to dispatch intervals - NEM

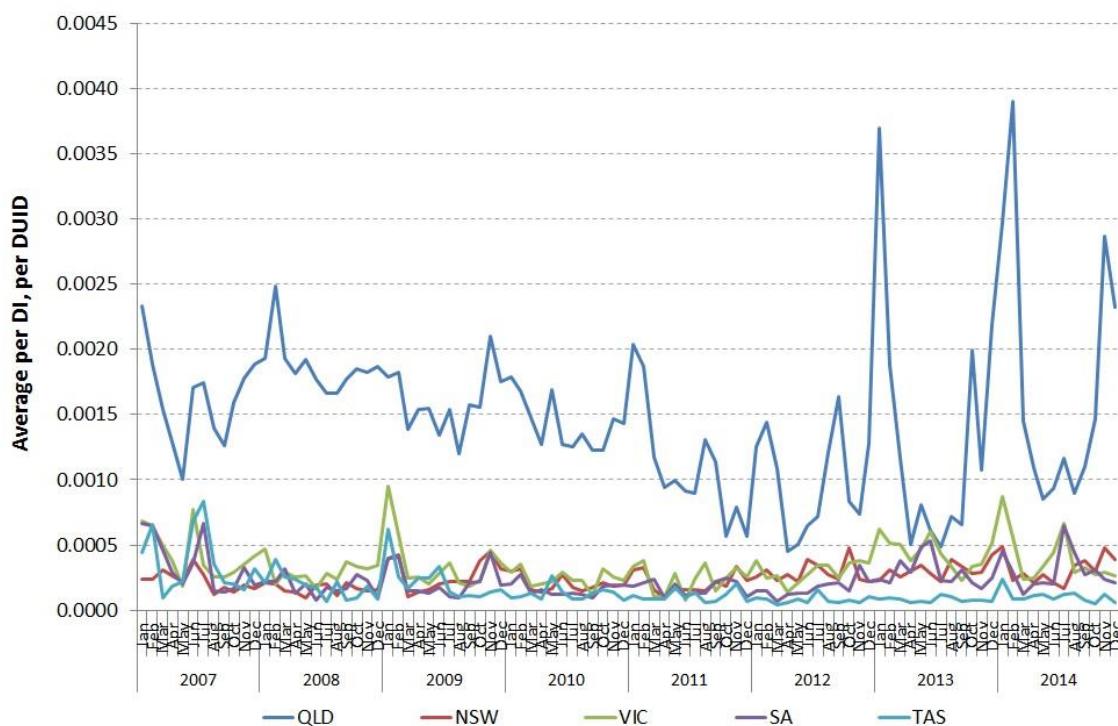


It is evident from the chart that, within each year, the number of rebids that apply to each dispatch interval increases over the trading interval. This is to be expected, as rebids are made for whole trading intervals rather than for specific dispatch intervals, and so any rebids that are made within 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.1 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.2 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.¹³⁵ 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.

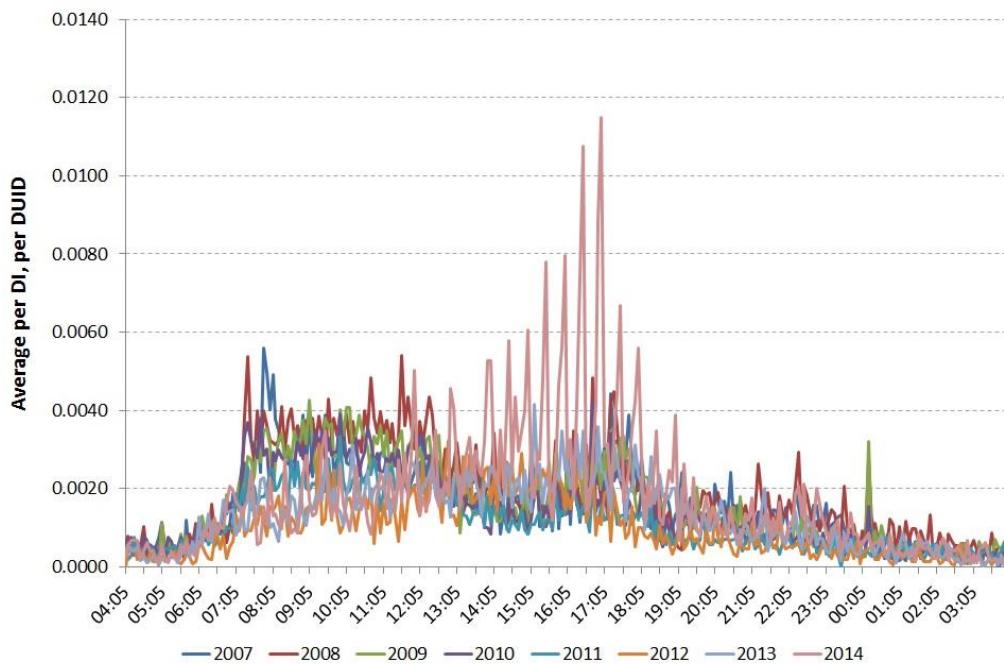
Figure B.2 Regional comparison of late rebidding that shifted capacity to price bands above \$300/MWh



¹³⁵ Care should be taken in comparing results as the number of generating units varies between regions.

Figure B.3 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.

Figure B.3 Time of day late rebidding to price bands above \$300/MWh - QLD



The relationship between late rebidding and market conditions

Table B.2 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).

Table B.2 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				↗			

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

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. Table B.3 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.

Table B.3 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							

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

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.

Table B.4 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.

Table B.4 Binding constraints and late rebidding frequency

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

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

Table B.5 shows an increased likelihood in Queensland in 2011 and 2013 of late rebidding into high price bands when transmission constraints are binding.

Table B.5 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					↘		

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

Price impacts

Table B.6 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.

Table B.6 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	↗		↗	↗	↗	↗	↗

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

Table B.7 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.

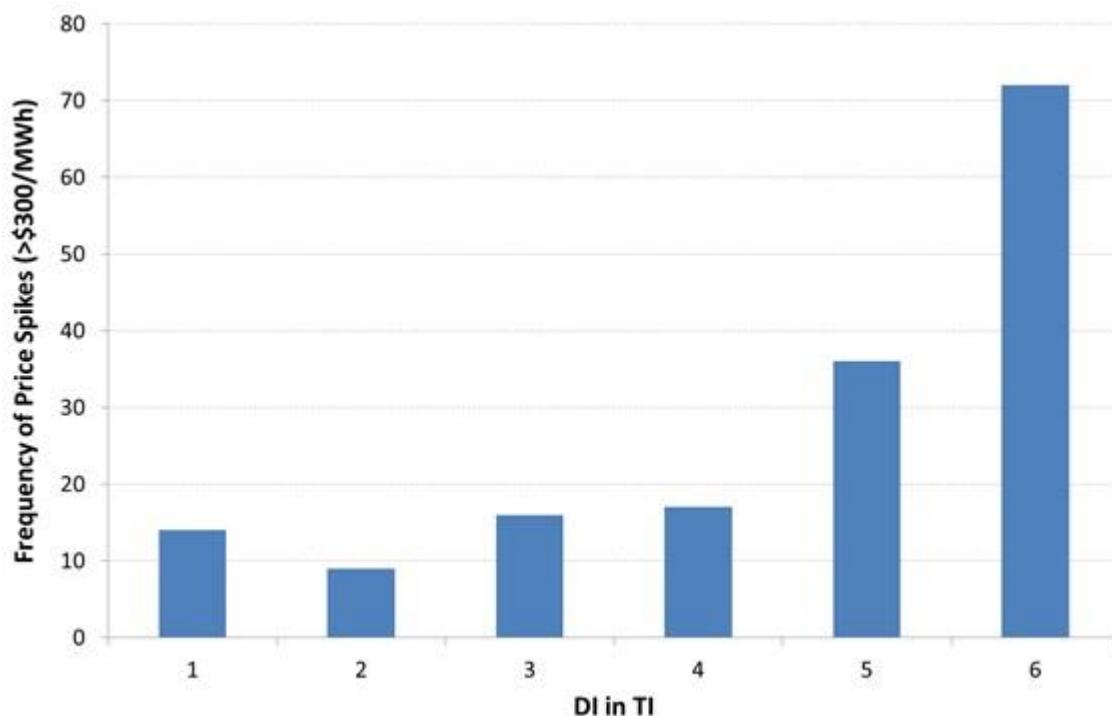
Table B.7 Relationship between late rebidding type and pool price spikes¹³⁶

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

Relationships that are of mild, moderate, and high significance are represented by green, blue, and red respectively.

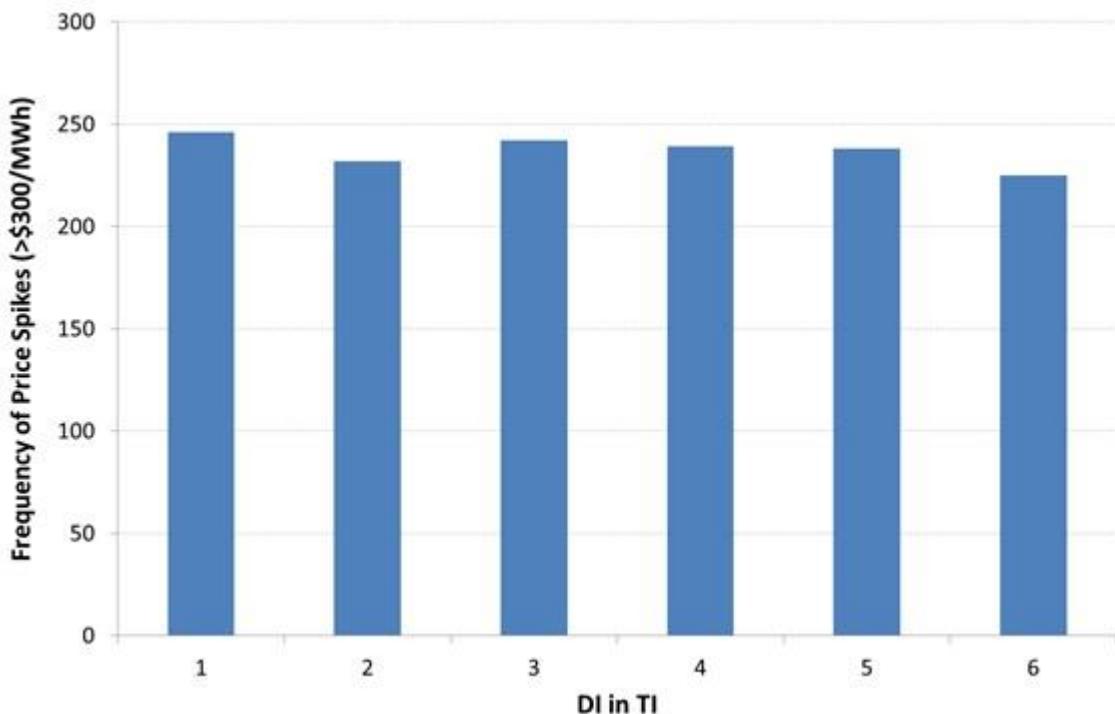
The high frequency of price spikes in the sixth dispatch interval is shown for Queensland in figure B.4. This can be compared to figure B.5 which shows the frequency of price spikes in the different dispatch intervals of trading intervals from 2007 to 2011. ROAM notes that this trend is not clearly identifiable in other regions of the NEM, with the possible exception of South Australia in 2013.

Figure B.4 Price spikes in Queensland - 2014



¹³⁶ 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.5 Price spikes in Queensland - 2007 to 2011



B.2 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.2.1 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.2.2 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.2.3 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.8 and B.9 show estimates developed by AEMO of the amount of demand response available by NEM region in winter and summer.¹³⁷

Table B.8 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

¹³⁷ 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.9 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*.¹³⁸ 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.10.

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%.

¹³⁸ ClimateWorks, *Industrial demand side response potential – Initial findings and discussion paper*, February 2014.

Table B.10 Estimates of demand response potentially available from industrial facilities across Australia¹³⁹

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.

¹³⁹ 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 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.

C.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.

C.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).¹⁴⁰ 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.¹⁴¹ 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

¹⁴⁰ ACCC, *Applications for authorisation – National Electricity Code*, 10 December 1997.

¹⁴¹ ACCC, *Amendments to the National Electricity Code – Changes to bidding and rebidding rules*, 4 December 2002, p. 5.

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 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).¹⁴² 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.

C.3 The good faith provisions

The good faith bidding provisions were incorporated into the National Electricity Code in 2002 by the ACCC.¹⁴³ The changes were made to the Code following the submission of applications by the NECA under Part VII of the TPA.¹⁴⁴

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

¹⁴² ACCC, *Applications for authorisation – Amendments to the National Electricity Code (rebidding, VoLL scaling and settlements statements)*, 6 December 2000, pp. 5-9.

¹⁴³ 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.

¹⁴⁴ ACCC, *Amendments to the National Electricity Code – Changes to bidding and rebidding rules*, 4 December 2002.

"blatant" economic withdrawal of generation, and the gaming of technical constraints.¹⁴⁵

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.¹⁴⁶ A breach of clause 3.8.22A attracts a maximum civil penalty of \$1 million.

NECA's application to the ACCC for authorisation to change the Code was based on its view that the changes would:¹⁴⁷

- 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' bids. 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' bids must be honoured should all circumstances remain unchanged and did not limit or restrict generators' bidding strategies.

¹⁴⁵ The acting South Australian Minister for Energy noted this in a letter to the ACCC dated 6 September 2002, www.registers.accc.gov.au.

¹⁴⁶ The good faith bidding provisions were initially incorporated in the Code and were transferred at the inception of the NER in July 2005.

¹⁴⁷ ACCC, Amendments to the National Electricity Code – Changes to bidding and rebidding rules, 4 December 2002, p. 1.

C.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*.¹⁴⁸ 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 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.

¹⁴⁸ Australian Energy Regulator v Stanwell Corporation Limited [2011] FCA 991, 30 August 2011.

D 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	Late strategic 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 late strategic 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	

Stakeholder	Comment	AEMC response
	<p>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 late strategic 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 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)</p>	
Alinta Energy	<p>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 late strategic bidding is the primary issue raised by the proposal there is no justification to proceed with the proposal. (p. 5)</p>	
ERM Power	<p>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)</p>	<p>The Commission has concerns with the effectiveness of the existing good faith provisions in addressing deliberate late rebidding. The assessment of whether a bid or rebid is made in good faith is only based on the generator's intentions at the time the bid 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 bid or rebid at the time it is made, the obligations of the good faith provisions are satisfied. See section 4.1.</p>

Stakeholder	Comment	AEMC response
InterGen	<p>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, late strategic rebidding has had no systemic impact on the market and can be considered an irrelevant issue. (p. 4)</p>	<p>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. See section 3.3.3.</p>
EnerNOC	<p>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 late strategic rebidding, because the price excursions are not providing any useful investment signal. This is because late strategic 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)</p>	<p>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.</p>
GreenSync	<p>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</p>	<p>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.</p>

Stakeholder	Comment	AEMC response
	misconduct of energy market participants. (p. 1)	
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-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)	
CS Energy	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)	
GDF Suez	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)	
Alinta Energy	While in a world where implementation costs could be ignored resolution of 5/30 may be justifiable, as it currently stands, and	

Stakeholder	Comment	AEMC response
	<p>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 whether 5/30 has a material impact on market efficiency but does not support change at this time. (p. 7)</p>	
EnerNOC	<p>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)</p>	
The proposed rule		
Arrow Energy	<p>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)</p>	<p>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 4.3.4.</p>
Alinta Energy	<p>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 proponent. It is unfortunate that the proposal has</p>	

Stakeholder	Comment	AEMC response
	<p>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 proponent's subjective interpretation of the intent of the initial changes to the National Electricity Code. (p. 2)</p>	
NGF	<p>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 Proponents 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 requests for additional information. (p. 4)</p>	
Recasting the good faith provisions in the negative		
SACOSS	<p>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)</p>	<p>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 4.3.4.</p>
Arrow Energy	<p>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</p>	

Stakeholder	Comment	AEMC response
	<p>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)</p>	
CS Energy	<p>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)</p>	
ERM Power	<p>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)</p>	
GDF Suez	<p>Whether the proponent intended for the change to constitute a reversal of the onus of proof or not, the proposed change would recast the good 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 proponent that the proposal does not create a reverse onus of proof; however, any</p>	

Stakeholder	Comment	AEMC response
	<p>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 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</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 5.2.4.</p>

Stakeholder	Comment	AEMC response
	regulation by getting the structure right so that opportunities and rewards for gaming are minimised. (p. 8)	
Provision of complete and accurate information to the AER		
QGC	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)	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 5.2.4.
Government of South Australia	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)	
CS Energy	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)	
Alinta Energy	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)	
SACOSS	The notion that this, "... 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	

Stakeholder	Comment	AEMC response
	<p>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</p>	

Stakeholder	Comment	AEMC response
	<p>rebids, to ensure they comply with the current requirements of the good faith provisions, including clause 3.8.22 (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 higher probability of resulting in inefficient market outcomes. See section 5.2.4.</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 Proponent. 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</p>	

Stakeholder	Comment	AEMC response
	<p>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 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)</p>	
MEU	<p>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)</p>	
Arrow Energy	<p>The proposal limits the defence of disputed rebids to the reasons given. This would introduce an inordinate burden on generators. (p. 4)</p>	
Macquarie Generation	<p>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)</p>	<p>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 would impose a significant regulatory obligation on participants, particularly given the level of potential penalty involved. See section 5.2.4.</p>
Rebidding on the basis of AEMO data or other material circumstances		
SACOSS	<p>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</p>	<p>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</p>

Stakeholder	Comment	AEMC response
	and (current and future) demand side responses. (p. 7)	
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)	expectations as a reason for a rebid may have the effect of restricting efficient price discovery. See section 4.3.4.
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 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	

Stakeholder	Comment	AEMC response
	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. 8)	The Commission has proposed to include an additional amendment to the NER to require a market participant to make a rebid as soon as reasonably 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 reasonably practicable upon a change in intentions 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 4.4.3.
GDF Suez	It is unclear exactly when the requirement to rebid would arise under the proposed changes. (p. 4)	
Alinta Energy	The proponent'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 bid 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	

Stakeholder	Comment	AEMC response
	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	<p>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>	<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 reasonably 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 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)</p>	
GDF Suez	<p>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)</p>	
InterGen	<p>Under the proposed rule change a generator may be driven to continuously rebid as new information comes to hand. This may lead</p>	

Stakeholder	Comment	AEMC response
	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 and rebids made by the generator. See section 4.4.2.
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)	

E Summary of issues raised in submissions on the Options Paper

Stakeholder	Comment	AEMC response
Assessment framework		
AER	<p>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)</p>	<p>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.</p>
SA Government	<p>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 bid or rebid if material conditions and circumstances remain unchanged. (pp. 1-2)</p>	
GDF Suez	<p>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)</p>	
EnergyAustralia	<p>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 is in optimising</p>	<p>The Commission recognises that 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. 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</p>

Stakeholder	Comment	AEMC response
	efficiency over time (productive, dynamic and allocative). (p. 2)	conditions in the 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)	

Stakeholder	Comment	AEMC response
Origin Energy	<p>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) would allow for this to occur, and is crucial for the stability and security of the system as well ongoing reliability. (p. 4)</p>	
ESAA	<p>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)</p>	<p>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.</p>
EnergyAustralia	<p>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</p>	

Stakeholder	Comment	AEMC response
	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 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	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

Stakeholder	Comment	AEMC response
	of sensitive volatile periods to capture value or ensure the market has sufficient ramping reserves to prevent price spikes. (p. 3)	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 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)	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. 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)	

Stakeholder	Comment	AEMC response
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 say. 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 ability to enforce them or participant compliance. (p. 2)	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.
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 higher likelihood of resulting in inefficient market outcomes. See section 3.1.

Stakeholder	Comment	AEMC response
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 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)	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.
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	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

Stakeholder	Comment	AEMC response
	<p>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)</p>	<p>underlying market conditions. See section 3.2.3.</p>
Snowy Hydro	<p>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)</p>	
EnergyAustralia	<p>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)</p>	<p>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.</p>
Pre-dispatch		
Stanwell	<p>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</p>	<p>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</p>

Stakeholder	Comment	AEMC response
	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 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 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</p>	

Stakeholder	Comment	AEMC response
	of the relevant policy makers. (p. 5)	
Origin Energy	A critical first step should be to examine the underlying reasons for Queensland's divergence from the national trend, such 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)	
Behavioural statement of conduct		
AGL	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)	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.
AGL	You would not expect that a deliberate strategy or pattern of behaviour over time that is designed to mislead other market participants would succeed for long until it is 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)	Under the 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 4.4.2.
Stanwell	Support measures which deter participants from 'Engaging in a pattern of behaviour of submitting bids and rebids that have the potential to be honoured but which create false expectations among	

Stakeholder	Comment	AEMC response
	<p>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>	
AGL	<p>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)</p>	<p>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 4.4.2.</p>
EnergyAustralia	<p>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)</p>	
Visy	<p>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)</p>	

Stakeholder	Comment	AEMC response
ERM Power	<p>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, 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)</p>	
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 4.5.</p>

Stakeholder	Comment	AEMC response
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 5.2.4.</p>
EnerNOC	<p>Our conclusion from the examination of the current "good faith" requirements is that reporting requirements around rebids achieve little: highly motivated and creative traders can produce a plausible reason for any rebid. (p. 8)</p>	<p>A report which sets out the change in material conditions 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 reasonably practicable, or whether the generator deliberately delayed in making its rebid in the knowledge that other participants would have limited time to respond. Late rebid reports 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 5.2.4.</p>
ESAA	<p>The suggestion in the paper that an earlier gate closure would allow demand side time to respond after which supply would have no</p>	<p>The draft rule would not restrict the ability of generators to submit rebids close to dispatch. Where there is a definite need to submit</p>

Stakeholder	Comment	AEMC response
	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)	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	The purported benefit of gate closure is that it would allow for a physical response by peaking generators and demand side proponents 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 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)	
Implementation		
AGL	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 practices and processes. (p. 3)	The Commission acknowledges that any changes to the NER will necessarily involve an appropriate period of transition and implementation.
AEMO	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	

Stakeholder	Comment	AEMC response
	<p>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>	