Australian Energy Market Commission

Draft Rule determination

Rule Proposal: **Reliability safety net extension**

Proponent: ***AEMC Reliability Panel and NEMMCO***

Date: ***28 February 2005***

Commissioners:
Tamblyn
Carver
Woodward

Contents

Summary

On 19 December 2005, the Commission received a Rule change request from the Reliability Panel (Panel) to extend the reliability safety net under clause 3.12.1 (Market intervention by NEMMCO) and Part 7 of Chapter 8A (Participant derogations – provision of non-scheduled reserves by NEMMCO) of the National Electricity Rules (Rules). NEMMCO is a joint proponent of the proposed Rule change in so far as it requires consequential changes to the derogation contained in Part 7 of Chapter 8A.

The reliability safety net provides NEMMCO with powers to contract for reserves where a reserve level shortfall is forecast and, if the shortfall eventuates in an operational timeframe, dispatch those reserves before directing market participants to reduce demand if required. The Panel and NEMMCO requested that the expiry date for NEMMCO's reliability safety net powers be extended from 30 June 2006 to 30 June 2008. The Panel argued that this would provide certainty to the market while the Panel's comprehensive reliability review is completed and the results implemented. That review, which is to be carried out in accordance with terms of reference provided to the Panel by the Commission, is due by March 2007. The Panel is of the view that the most appropriate arrangements for the reliability safety net (if any) must be considered in conjunction with the other key National Electricity Market (NEM) reliability of supply parameters including the reliability standard and the level of Value of Lost Load (VoLL).

The Commission received submissions from AGL, the Energy Retailers Association of Australia (ERAA) and TRUenergy in response to the proposal. AGL's submission supported the Rule change proposal while the ERAA and TRUenergy submitted that there was not a sufficient case to extend the reliability safety net. All three submissions raised issues with the current operation of the reliability safety net.

The Commission has considered the issues contained in those submissions and arising from its own analysis. It is satisfied that there are good reasons to maintain the existing safety net for the two year period as sought. However, it has also provided for the reliability safety net to be removed by the Commission before the end of that period should the Panel so recommend as the result of its comprehensive reliability review. The Commission is satisfied that the extension is likely to contribute to the NEM objective, and therefore, satisfies the Rule making test.

Accordingly, the Commission has determined that, subject to comments from persons as part of the consultation on this draft determination, it intends to make a Rule as set out in the draft of the Rule to be made. This draft Rule determination, including the draft of the Rule that the Commission has determined to make, sets out the reasons of the Commission in accordance with the requirements of the National Electricity Law (NEL).

1. The Reliability Panel's Rule proposal

On 19 December 2005, the Commission received a Rule change request from the Panel[1] to extend the reliability safety net under clause 3.12.1 (Market Intervention by NEMMCO) and Part 7 of Chapter 8A (Participant Derogations – Provision of non-scheduled reserves by NEMMCO) of the Rules. NEMMCO is formally a proponent of the proposed Rule change in so far as it requires consequential changes to the derogation contained in Part 7 of Chapter 8A.

The Panel and NEMMCO have requested that the expiry date for NEMMCO's reliability safety net powers be extended from 30 June 2006 to 30 June 2008. The current reliability safety net allows NEMMCO to enter into contracts for reserves with scheduled generators and sources of non-scheduled reserves for periods where it appears there may be insufficient reserves to meet the NEM reliability standard. When entering into contracts for reserves NEMMCO must follow the guidelines developed by the Panel and published on the Commission's website at www.aemc.gov.au.

The extension is intended to allow the reliability safety net to continue until the Panel's comprehensive reliability review is completed and the results implemented[2]. The reliability safety net forms one of the key elements of the NEM reliability regime and the comprehensive reliability review will, amongst other matters, examine whether or not the safety net should be extended for the medium-term or whether alternative arrangements should be put in place.

1 The Reliability Panel is a Panel of the Commission established under s.38 of the NEL. Its main functions are to monitor, review and report on the security and reliability of the national electricity system.

2 Further information on the Panel's comprehensive reliability review is available on the Commission's website at http://www.aemc.gov.au/electricity.php?r=20051215.142656.

2. The draft Rule determination

The Commission has determined, in accordance with section 99 of the NEL, to make the draft Rule set out in Attachment 1 of this draft Rule determination. The wording of the draft Rule has changed from the proposed Rule put forward by the Reliability Panel to provide that the Commission may remove the reliability safety net before the end of the two year extension sought should the Panel so recommend as the result of its comprehensive reliability review.

In coming to its decision, the Commission has considered:

- the Rule proposal and the proposed Rule put forward by the Panel and NEMMCO (see section 1 of this determination);
- submissions received (see sections 4 and 5 of this draft determination); and
- the requirements under the NEL (see section 3 of this determination).

The Commission has applied the statutory Rule making test and for the reasons set out in section 6 of this draft Rule determination, is satisfied that the draft Rule is likely to contribute to the achievement of the NEM objective.

3. Requirements under the NEL

3.1 The Rule making test

The NEL requires the Commission to apply the Rule making test in its analysis and assessment of a Rule proposal at the draft determination phase of the Rule making process. The Rule making test states:

> (1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity market objective.
>
> (2) For the purposes of subsection (1), the AEMC may give such weight to any aspect of the national electricity market objective as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles. (s.88 NEL)

The NEM objective is at the centre of the Rule making test and is set out in section 7 of the NEL:

> The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system.

3.2 The subject matter of the draft Rule

The Commission may make Rules under s.34 of the NEL for regulating:

> (a) the operation of the national electricity market;
>
> (b) the operation of the national electricity system for the purposes of the safety, security and reliability of the system; and
>
> (c) the activities of persons (including Registered participants) participating in the national electricity market or involved in the operation of the national electricity system.

The draft Rule concerns:

- the operation of the national electricity market;
- the reliability of the power system; and
- the activities of persons, including Registered Participants, involved in the operation of the national electricity system.

The draft Rule also falls under the subject matters listed in the following clauses of Schedule 1 of the NEL (given effect by section 34(2) of the NEL) as the Draft Rule is in respect of:

- prices for services purchased through the wholesale exchange (clause 7);

- the methodology applied to setting prices under clause 7 (clause 8);
- the operation of generating systems and other facilities (clause 11); and
- a review by the Reliability Panel under Rules clause 3.12.1(b) (clause 33(b)).

The Commission is therefore satisfied that the draft Rule falls under the subject matters for which the Commission may make Rules.

4. Consultation process

The proposal to extend the reliability safety net has been submitted jointly by the Panel and (formally) by NEMMCO. The Panel is representative of each major sector of the NEM, including the market operator.

As noted in section 1, the Commission received the proposal to extend the reliability safety net on 19 December 2005. The Commission commenced a consultation under s.95 of the NEL and invited written submissions on the issues raised in the Rule change proposal. On 22 December 2005 the Commission published:

- the Section 95 Notice;
- the Rule change proposal submitted by the Panel;
- a draft of the proposed Rule provided by the Panel; and
- NEMMCO's letter formally joining the market operator as a proponent of the Rule change proposal submitted by the Reliability Panel for the purpose of the change to the NEMMCO derogation.

The closing date for submissions was 3 February 2006.

The Commission received submissions from AGL, the ERAA and TRUenergy on the issues raised in the Rule change proposal. TRUenergy's submission referred to submissions made by its predecessor (TXU) to the Australian Competition and Consumer Commission (ACCC) in relation to past decisions to extend the reliability safety net. The (Australian Energy Market) Commission has agreed with TRUenergy to treat those submissions as background information to the current Rule change process.

The Commission has reviewed the issues raised in the submissions and its consideration of those issues is presented in section 5. The Commission has analysed the proposed Rule change in terms of the likely contribution to the achievement of the NEM objective and its considerations are presented in section 6.

5 Matters raised in analysis and consultation

As noted in section 4 of this draft determination, the Commission received submissions from AGL, the ERAA and TRUenergy in relation to the Panel's proposal.

This section addresses the issues raised in those submissions as well as issues that have emerged during the Commission's analysis of the proposal.

What the proponent said

The Panel and NEMMCO submitted the proposed Rule change to allow the reliability safety net to be available to operate while the Panel completes its comprehensive reliability review.

In its proposal to the Commission, the Panel noted that the reliability safety net has existed since market start but that it had always been intended that a review of the safety net would be conducted in accordance with the then National Electricity Code prior to the expiry date. The Panel explained that:

- with the NEM governance arrangements now settled, it was an appropriate time to conduct that review; and
- the review had been included in the Panel's comprehensive reliability review due to be completed by 31 March 2007 because the reliability safety net formed one of the key elements of the NEM reliability regime; and
- that review will examine whether or not the reliability safety net should be extended for the medium-term or whether alternative arrangements should be put in place.

What the submissions said

AGL supported the proposal to extend the safety net for the period sought while the comprehensive reliability review is completed.

While the ERAA supported a review of the reliability safety net as part of the Panel's comprehensive reliability review, it submitted that there is insufficient practical experience to demonstrate that extension of the safety net for two financial years would be in the interests of consumers. The ERAA pointed to the following:

- while NEMMCO has entered into reserve contracts for the 2004/05 and 2005/06 summers at a cumulative cost to consumers of approximately $6m, there have been no "Lack of Reserve" conditions in the relevant regions and so no contracted reserves have been dispatched, thus consumers have received no actual reliability benefit from the operation of the safety net;
- the NEMMCO reserve outlook indicates that the reliability standard will be met during the period of extension from July 2006 to June 2008, and therefore, it appears that the safety net cannot further consumer interests during this period; and

- on both occasions where it has entered into reserve contracts, NEMMCO in fact attempted to purchase substantially greater volume of contracts than it actually achieved, indicating a failure in the existing safety net's design.

In addition to the above, TRUenergy also considers that the intention of the Panel to perform a comprehensive reliability review was not relevant to the Commission's decision whether or not to extend the reliability safety net. It also submitted that the reserve trading process undertaken by NEMMCO in 2002 would have failed to procure the required reserves were it not for changes to several generator outage plans.

AGL and the ERAA identified a number of specific concerns they hold about the operation of the reliability safety net and welcomed the Panel's intention to review how those operating arrangements could be improved as part of the comprehensive reliability review.

The Commission's consideration and reasoning

The core decision before the Commission is whether extending the reliability safety net to operate over the next two years is likely to provide better outcomes for electricity consumers than allowing it to lapse on 1 July 2006 and instead relying entirely on the market to ensure the delivery of reliable supply during that period.

The reliability safety net operates as follows:

- NEMMCO provides forecasts of supply, demand and reliability reserve levels to market participants across a range of timeframes in advance of actual dispatch;
- where, no more than six months ahead of the relevant time, NEMMCO assesses that participants will themselves be unlikely to ensure the provision of sufficient reliability reserves, it will tender for additional reserves. The cost of those contracts is shared between market customers. Under the Rules and guidelines determined by the Panel, NEMMCO must be satisfied that these contracted reserves would not have been made available to the market and an availability payment has generally been required to entice entities to provide these additional reserves;
- if it turns out that the additional reserves are needed in order to meet the actual demand for electricity, the market operator will dispatch them. The market operator makes information regarding its decisions to tender for additional reserves, and the results of that tendering process, available to market participants in advance of the time that the reserves may need to be dispatched; and
- in the event that insufficient contracted reserves are available in an operational timeframe, NEMMCO may use its power under Rules clause 4.8.9 to either direct a scheduled plant or market generator, or instruct other registered participants to, for example, increase generation or reduce demand.

<u>Whether the safety net provides benefits when contracted reserves are not dispatched</u>

The ERAA and TRUenergy submitted that the reliability safety net should not be extended because, during its operation over the past two years, the scheme has incurred some $6m of consumer costs but produced no actual consumer benefits. This was on the basis that the additional reserves contracted by NEMMCO in order to meet projected shortfalls in reserves over the last two summers were not in fact dispatched.

The Commission notes that the reliability safety net operates in a similar manner to an insurance policy in that customers pay a premium before an event occurs in order to avoid having to pay a potentially much larger cost if the event in fact takes place. Thus, electricity consumers obtain the benefit of a lower risk of involuntary load shedding when NEMMCO contracts for additional reserves in response to a projected shortfall. It does not follow that those reserves must be dispatched for that benefit to be obtained. Nor, the Commission notes, does it follow that, because it hasn't been necessary to dispatch contracted reserves in the past, reserves contracted in the future cannot therefore be dispatched to the benefit of electricity consumers.

The Commission also notes that:

- the $6m cost of reserves represents less than 0.1% of the approximately $7 billion traded each year in the NEM[3];
- the cost of contracting for reserves at approximately $12,000 per MW is a significantly cheaper solution to a short-term shortfall in reserves than can be provided by even the lowest-cost supply options with an annualised capital cost estimated at approximately $42,000 per MW[4];
- the relatively high level of reserve trading required for the 2005/06 summer can be attributed to delays in commissioning both the Basslink interconnector and the Laverton North power station. The Commission therefore considers that the reserve trading for last summer does not necessarily represent a systemic market failure;
- the operation of the reliability safety net has provided a mechanism for identifying those electricity users who are willing to voluntarily reduce their consumption during a supply shortfall rather than imposing involuntary load shedding during such an event.

Failure to contract for full shortfall in reserves

The ERAA and TRUenergy also indicated that NEMMCO has not contracted for the full amount of the shortfall of reserves for the 2004/05 and 2005/06 summers and submitted that this indicated a failure of the safety net design. In addition, TRUenergy also submitted that NEMMCO would have been unlikely to have successfully contracted for reserves in 2002, if additional scheduled generation had not become available.

In the Commission's view, it does not follow from either of these claims that the safety net design has "failed". The Commission considers that it was not the intention behind the mechanism that NEMMCO should be required to contract for the full reserve shortfall *at*

---

3 Page 5 of the 2005 NEMMCO Annual Report, which is available on NEMMCO's website at http://www.nemmco.com.au/nemgeneral/000-0205.pdf.

4 The 2005 Annual National Transmission Statement produced by NEMMCO contains advice from ACIL Tasman that indicated the typical capital cost of an open-cycle gas turbine operating with a 2% utilisation is $240 MWh, which is equivalent to $42,000 per MW.

any cost. Rather, it should only contract for reserves to a level that provides value for money. The Commission notes that, under Rules clause 3.12.1(c), NEMMCO is required to consult with the relevant jurisdictions when making that assessment. Whether there is room to improve the way in which that judgement is made is an operational issue that the Commission considers may most appropriately be addressed as part of the Panel's comprehensive reliability review.

Reserves shortfalls from July 2006 to June 2008

The ERAA also submitted that NEMMCO's reserve outlook indicated that the reliability standard will be met during the proposed period of extension from July 2006 to June 2008, and therefore, that the safety net cannot further consumer interests during this period.

The Commission notes that NEMMCO's 2005 Statement of Opportunities anticipates a 237 MW shortfall in the combined Victoria and South Australian region for the 2007/08 summer[5]. Thus, a decision to extend the safety net may have a material impact on consumers in those regions. If the safety net was extended but sufficient new capacity entered the Victorian or South Australian regions, NEMMCO would not need to enter into reserve contracts and there would be no cost to the market.

Whether the Panel's comprehensive review is relevant to the Commission's determination

TRUenergy submitted that the fact that the Panel was to undertake a comprehensive reliability review, including a review of the effectiveness of the safety net, was not relevant to the Commission's determination. In principle, the Panel could undertake the comprehensive review while an entirely market-based approach is used to ensure reliable electricity supply[6]. However, the Commission does not consider that it would be in the best interests of consumers to allow the safety net to fall away before the need for it is properly reviewed as required by the Rules.

The current wholesale market reliability mechanism comprises a NEM-wide reliability standard, spot market caps (the Value of Lost Load, market floor price and Cumulative Price Threshold) and the reliability safety net. That mechanism was adopted based on the following market features:

- new entry in the supply side being lumpy and investors facing uncertainty from factors such as future demands and fuel costs; and
- the demand side having had a limited opportunity to demonstrate its ability to respond to supply shortfalls.

Experience has also shown that there are other risks such as the late delivery of new entry projects or major outages of existing generators.

5 Page 2-11 of the 2005 Statement of Opportunities. Further information on the Statement of Opportunities is available on the NEMMCO website at http://www.nemmco.com.au/nemgeneral/soo_2005.htm.

6 In such a case, an extension of the time frame under the Rules would make it clear that the Panel was to include a review of the safety net as part of the comprehensive reliability review.

The Commission considers that, while the NEM appears to be operating satisfactorily in that new entry is occurring approximately in proportion to the load growth, there is no guarantee that a purely market-based solution can provide the same level of assurance as the reliability safety net.

It is the purpose of the Panel's comprehensive reliability review to evaluate the potential for adjusting the wholesale market mechanism to improve the efficient delivery of reliability outcomes for consumers. The Commission's terms of reference to the Panel make it clear that consideration of the safety net in conjunction with the other components of that mechanism would provide the greatest certainty to market participants and consumers.

The Commission considers that extending the current safety net until the results of that review can be implemented in the market would be likely to provide a greater net benefit to consumers than would making no change and allowing the safety net to lapse. The Commission notes that, whatever the outcome of the Panel's review, extending the safety net for two years would also mean that participants and customers would not face the uncertainties or costs associated with adopting two sets of changes in as many years.

Duration of the extension

The question of whether there would be likely to be a net benefit also depends on the duration of the proposed extension. The extension should be sufficiently long to undertake the comprehensive reliability review and implement its outcomes, without being excessively long and thus delaying the introduction of the potential efficiency improvements resulting from that review. The Commission considers the period proposed to be an appropriate balance between the relevant factors. However, it has also provided for the reliability safety net to be removed before the end of the two years should the Panel so recommend as the result of its comprehensive reliability review.

The Commission's finding in relation to this issue

The Commission considers that the proposed Rule change would provide a net benefit to the market. Specifically, the Commission considers that the cost of contracting for reserves, when required, and the potential for more cost-efficient market-based solutions to any anticipated reserve shortfalls are outweighed by the following benefits:

- the reduced risk of involuntary load shedding due to a supply shortfall;
- certainty to participants of knowing that the current safety net will operate until the completion and implementation of the Panel's comprehensive reliability review; and
- avoiding the cost and risks of potentially two sets of changes in two years.

The Commission considers that the length of the extension should be minimised and has modified the draft Rule to give the Commission the power to remove the safety net before the end of the two year extension should the Panel so recommend as the result of the comprehensive reliability review.

The Commission has provided the Panel with copies of the submissions made by AGL, the ERAA and TRUenergy and expects that the Panel will consider the operational issues raised in that material part of its comprehensive reliability review.

6 Commission's reasons for draft determination in terms of the Rule making test

The Rule-making test requires the Commission to be satisfied that a Rule that it proposes to make will, or will be likely to, contribute to the achievement of the NEM objective. The NEM objective is concerned with promoting the efficiency of the NEM for the long term interests of consumers of electricity.

6.1 Assessment against Rule making test

The Commission considers that extending the current reliability safety net expiry date from 30 June 2006 to 30 June 2008 is, or is likely to, contribute to the NEM objective by:

- increasing reliability (and thus reducing the risk of involuntary load shedding) for electricity users while the comprehensive reliability review considers the matter for the medium to long term by maintaining a mechanism for procuring sufficient reserves to meet the reliability standard determined by the Panel; and
- increasing participant certainty and therefore avoiding increased costs by removing the need to change the arrangements for the reliability safety net twice in the short-term leading to comparatively more efficient use of electricity than would otherwise be the case.

In contrast, the Commission considers that there may be a less efficient use of electricity arising from imposing on participants the cost of NEMMCO contracting for, and dispatching, reserves during the period of extension and that this would be likely to detract from the NEM objective.

Extending the current reliability safety net expiry date will not have a material impact on long-term investment decisions in the national electricity system given that the comprehensive reliability review will address the mechanisms in the NEM to ensure sufficient long-term investment. In this respect, the Commission therefore considers that the extension will not materially contribute to, or detract from, the NEM objective.

The Commission considers that, on balance, the benefits to consumers identified above outweigh the disadvantages of continuing the reliability safety net while the Panel conducts its comprehensive reliability review.

6.2 Commission statement on Ruling making test

The Commission is satisfied, for the reasons set out in this determination, that the draft Rule is, or is likely, to contribute to the NEM objective, and therefore, satisfies the Rule making test. Accordingly, the Commission has determined that, subject to comments from persons as part of the consultation on this draft determination, it intends to make a Rule as set out in the draft of the Rule to be made.

Attachment 1: Draft Rule

AEMC

Draft National Electricity Amendment (Reliability Safety Net Extension) Rule 2006

under the National Electricity Law as applied by:

(a) the National Electricity (South Australia) Act 1996; and
(b) the Electricity (National Scheme) Act 1997 of the Australian Capital Territory; and
(c) the National Electricity (New South Wales) Act 1997 of New South Wales; and
(d) the Electricity - National Scheme (Queensland) Act 1997 of Queensland; and
(e) the Electricity - National Scheme (Tasmania) Act 1999 of Tasmania; and
(f) the National Electricity (Victoria) Act 1997 of Victoria; and
(g) the Australian Energy Market Act 2004 of the Commonwealth.

The Australian Energy Market Commission makes the following Rule under the National Electricity Law.

John Tamblyn
Chairman
Australian Energy Market Commission

National Electricity Amendment (Reliability Safety Net Extension) Rule 2006

1. Title of Rule

This Rule is the *National Electricity Amendment (Reliability Safety Net Extension) Rule 2006.*

2. Commencement

This Rule commences operation on the day the notice of the making of the Rule is published in the South Australian Government Gazette.

3. Amendment of the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 1.

4. Notes

Notes do not form part of this Rule.

Schedule 1 Amendment of National Electricity Rules

(Clause 3)

[1] Clause 3.12.1 Reliability safety net

In clause 3.12.1(a) omit the words "1 July 2006" and substitute the words "the *reliability safety net end date*".

[2] Clause 3.12.1

In clause 3.12.1(b) omit the words "1 July 2006" and substitute the words "1 July 2008".

[3] Chapter 8A Participant Derogations Part 7 - Provision of Non-Scheduled Reserves by NEMMCO

In clause 2(f) of the derogation (which modifies or varies clause 3.12.1) omit the words "1 July 2006" in clause 3.12.1(a) and substitute the words "the *reliability safety net end date*".

[4] Chapter 8A Participant Derogations Part 7 - Provision of Non-Scheduled Reserves by NEMMCO

In clause 2(f) of the derogation (which modifies or varies clause 3.12.1) omit the words "1 July 2006" in clause 3.12.1(b) and substitute the words "1 July 2008".

[5] Chapter 8A Participant Derogations Part 7 - Provision of Non-Scheduled Reserves by NEMMCO

In clause 3 (End of Derogation) omit the words "end of 30 June 2006" and substitute the words "*reliability safety net end date*".

[6] Chapter 10

In Chapter 10, insert in alphabetical order, the following definition:

Reliability safety net end date

A date which is the earlier of:

(a) a date determined by the AEMC and published in the South Australian Government Gazette, having regard to any recommendation of the Reliability Panel under clause 3.12.1(b); or

(b) 1 July 2008.