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# 1 Introduction

On 1 July 2005, the Australian Energy Regulator (AER) assumed responsibility for compliance monitoring, reporting and enforcement in the National Electricity Market (NEM).

Section 15 of the National Electricity Law requires the AER:

- (a) to monitor compliance by Registered Participants and other persons with this Law, the Regulations and the Rules; and
- (b) to investigate breaches or possible breaches of provisions of this Law, the Regulations or the Rules that are not offence provisions.

In carrying out its monitoring functions, the AER collects and analyses information from Registered Participants and the National Electricity Market Management Company (NEMMCO). The AER ensures that, to the extent practicable, monitoring:

- (1) is consistent over time;
- (2) does not discriminate unnecessarily between Registered Participants;
- (3) is cost effective for the AER, all Registered Participants and NEMMCO; and
- (4) information is published, or otherwise made available to the market, subject to any confidentiality requirements.

This report summarises the results of the AER compliance monitoring activities during the period April – June 2006.

# 2 Compliance monitoring strategy

The AER monitors the operation and performance of the NEM, conducts special investigations in response to market outcomes and/or specific events and aims to encourage market participants to have an ongoing compliance management focus.

The AER compliance monitoring program includes targeting a number of specific Rule provisions each year. These provisions relate to areas in the Rules where compliance concerns have been identified or where changes to the Rules have been introduced. The AER will target 24 Rules each year for review. The AER assesses compliance with the targeted provisions through examining all, or a sample of, relevant market participants' behaviour.

The review process encourages market participants to maintain an ongoing compliance management focus by targeting specific provisions of the Rules and reviewing compliance. The AER also conducts a rolling program of reviews of participants' compliance strategies and plans. Those reviews are conducted cooperatively and involve one-on-one discussions with participants. The reviews provide the opportunity to engage participants and to discuss compliance strategies and critical challenges faced by the participant in discharging its obligations under the Rules.

The AER's approach to monitoring compliance relies, in the first instance, on comprehensive observation and reporting, and emphasises voluntary compliance by registered participants. During the compliance review process, the AER assesses the adequacy of compliance from the information provided by the Registered Participants and may review compliance with these obligations at regular intervals.

In the June quarter, the AER focused its compliance monitoring program on the reporting requirements placed on transmission network service providers in relation to reporting of planned network outages. It also reviewed the requirements placed on ancillary service providers in relation to market ancillary service offers.

The AER sought information from NEMMCO with respect to the Local Black System Procedures, established under clause 4.8.12 of the Rules and the settlement timing obligations of clause 3.15.16. During the next quarter, the AER will review the obligations of participants with respect to Local Black System Procedures and settlement timing obligations. In addition, the AER will examine the requirements of network service providers in response to a connection enquiry. The AER will continue to monitor the reporting of planned network outages and the obligations of ancillary service providers.

The AER is keen to hear from participants and other interested parties on any matters of compliance, in particular with respect to the specific areas targeted for review.

# 3 Compliance monitoring outcomes

The AER met with three market participants to discuss compliance monitoring arrangements and strategies. These discussions focussed on the methods by which the participants manage compliance with the Rules, in order to provide the AER with greater understanding of these processes. The AER also discussed issues that were identified as part of its market monitoring functions.

## 3.1 Targeted provisions

#### Transmission network service provider obligations and responsibilities

Clause 3.7A of the rules sets out planned network outage information requirements, the objective of which is to provide market participants with sufficient information to enable them to make projections of market outcomes, including projections of interregional settlement residues, and decisions with respect to hedge contracts and other financial risk management tools.

Clause 3.7A(c) requires that:

"Each month, in accordance with the timetable for the provision of information to medium-term PASA, each Transmission Network Service Provider must provide to NEMMCO and publish:

- (1) details of the forecast timing and the factors affecting the timing of planned network outages and the likelihood that the planned timing will vary;
- (2) details of the reason for the planned network outage, including the nature and extent of works required, in any; and
- (3) any other information with respect to planned network outages that is reasonably requested by NEMMCO with a view to achieving the objectives set out in clause 3.7A(a),

for those network outages planned for the following thirteen months that, in the reasonable opinion of the Transmission Network Service Provider, will have or are likely to have a material effect on transfer capabilities."

Clauses 3.7.2 and 3.7.3 relate to the medium-term and short-term projected assessment of system adequacy processes (PASA) respectively. Under these provisions, Network Service Providers are required to submit to NEMMCO an outline of planned network outages, and any other information on planned network outages that is reasonably requested by NEMMCO to meet its obligations under these provisions.

The AER wrote to seven transmission network service providers, requesting a review of the arrangements for compliance with the provision set out above. Participants were requested to provide the following information:

- details of the processes undertaken to forecast timing and the factors affecting the timing of planned network outages and the likelihood that the planned timing will vary;
- the processes for the co-ordination of network outages with other network service providers and other connected parties;
- the processes to monitor the accuracy of those forecast outages against actual performance, and any steps taken, where necessary, to improve the accuracy of forecast outages;
- the process for implementing the information on network outages into the market systems, including the process for developing network limits and their representation in the market systems as constraint equations;
- whether in the TNSP's view, the information being provided by the TNSP is implemented in a timely and accurate manner into the market systems by NEMMCO, and if not, a description of areas where this process could be improved; and
- how this process interacts with the information requirements of clauses 3.7.2 and 3.7.3 of the Rules.

#### Review outcome

The AER reviewed participants' responses against the requirements of the Rules. In general, the responses demonstrated that participants have the necessary processes in place to ensure compliance with the Rules with respect to the provisions reviewed.

### Planning of outages

- Responses indicate that outages are planned up to 5 years ahead for construction work and up to 2 years ahead for maintenance work, with reporting of outage schedules occurring monthly through 13-month outage plans provided to NEMMCO. The schedules are not generally accurate beyond three to four months from the proposed outage date, with final confirmation of dates and times generally occurring four weeks prior to an outage.
- Factors indicated as affecting the accuracy of planned outages included the affects of unplanned network outages, weather and other environmental hazards, changes to the likely impacts on customers and the market, availability of resources and equipment, and variations resulting from coordinating and optimising overall availability of the network with other TNSPs.

### External planning process

Responses indicate that key industry stakeholders were consulted in the development of outage schedules. TNSPs communicate with distribution network service providers (DNSP), generators and major customers, including through regular meetings, to ensure that all relevant considerations are factored into outage scheduling decisions.

#### Monitoring and review process

- Few processes are currently in place for the effective monitoring of the accuracy of outage forecasts. Outages which are assessed as potentially having a significant market impact are, however, generally subject to a more detailed review process. Two respondents indicated that systems that track the accuracy of outage forecasts are currently in development.
- Other processes to improve the accuracy of outage forecasts being investigated by TNSPs include; improvement of planning procedures and standards; regular performance review meetings with key stakeholders; and in one jurisdiction, incentive schemes.

### Relationship with NEMMCO

- All respondents indicated that the current systems in place for providing information to NEMMCO are adequate. The inclusion of network outage schedules and limit equations into market systems was considered timely and accurate.
- Business-to-Business interfaces, either currently in place or in development for a number of respondents, were regarded as effective for transferring information to market systems.

#### AER assessment

Based on the information provided by participants, and the AER's assessment against the requirements in the Rules, the AER is satisfied that the participants reviewed are aware of the obligations with respect to clause 3.7A of the Rules and that appropriate compliance strategies and plans are in place to ensure ongoing compliance with the Rules.

Several network service providers acknowledged, however, that there is room to improve some of the processes to deliver longer-term network outage plans with greater certainty.

The AER will continue to monitor the accuracy of network outage plans submitted by TNSPs, to ensure best practice procedures are in place and the objectives of clause 3.7A are satisfied. The AER's work in assessing the Market Impact of Transmission Constraints will assist in providing some quantification of the impact of network outages on market outcomes.

### Ancillary service provider obligations and responsibilities

Clause 3.8.7A(k) of the Rules requires that: "an Ancillary Service Provider that submits a market ancillary service offer must ensure that the ancillary service generating unit or ancillary service load, as the case may be, is at all times capable of responding in the manner contemplated by the market ancillary service specification."

Clause 4.9.9B requires that: "A Market Participant which has classified a generating unit or load as an ancillary service generating unit or an ancillary service load must, without delay, notify NEMMCO of any event which has changed or is likely to change the availability of a market ancillary service, or the capability of the generating unit or load to respond in the manner contemplated by the market ancillary service specification, as soon as the Market Participant becomes aware of the event."

As a result of some performance issues identified by NEMMCO, the AER wrote to one ancillary service provider during the quarter. The AER requested the ancillary service provider review the arrangements for compliance with these provisions and to provide the following information:

- details of the process the ancillary service provider undertakes to ensure that its ancillary service generating units are at all times capable of responding in the manner contemplated by the market ancillary service specification;
- whether the ancillary service provider notifies NEMMCO of any events apart from through the normal market mechanisms, which change the availability of a market ancillary service, or the capability of the generating unit to respond in the manner contemplated by the market ancillary service specification in accordance with clause 4.9.9B of the Rules:
- the steps taken by the ancillary service provider, in conjunction with NEMMCO, to identify and work through any compliance issues; and
- any other information that might be useful in response to this matter.

### Review outcome

The participant's response was reviewed against the requirements of the Rules.

Compliance processes

The participant outlined the processes to ensure appropriate performance of ancillary service generating units. This includes:

- frequency control ancillary service parameters, used for bidding purposes, are reviewed as required where issues are identified through feedback from spot trading and market operations personnel;
- routine checks of the expected maximum frequency response for each ancillary service generating unit. Values in the relevant market ancillary services offer are adjusted, and NEMMCO is advised, whenever circumstances or events will impact on the availability of services;

forecast price spikes in ancillary service markets are monitored to identify possible issues in the provision of ancillary services. In addition, alarms are monitored to indicate any deviation outside the frequency standard or incorrect status of control modes.

### NEMMCO notification process

The respondent reported that NEMMCO is normally notified through market mechanisms of changes in the availability of a market ancillary service, or the capability of a generating unit to respond in the manner contemplated by the market ancillary service specification. Operational communications is also used as required.

### Compliance strategies

The respondent identified a number of initiatives that have been entered into between the ancillary service provider and NEMMCO to improve performance. Work is continuing to further improve performance in this area.

#### AER assessment

Based on the information provided by the participant, and the AER's assessment of that information against the requirements in the Rules, the AER is satisfied that the participant is aware of the obligations with respect to clause 3.8.7A(k) and 4.9.9B of the Rules and that appropriate compliance strategies and plans are in place to improve performance in this area. The participant has committed to update the AER as further improvements are made with respect to the provision of ancillary services.

# 3.2 Jurisdictional derogations

Chapter 9 of the Rules preserves certain jurisdiction-specific arrangements. These are known as jurisdictional derogations and exempt participants from compliance with specified provisions in the Rules.

A series of chapter 9 derogations provide exemptions for certain parties classified as Smelter Traders, Power Traders and Nominated Generators from complying with the Rules to the extent that there is any inconsistency between the Rules and a contractual requirement under a relevant agreement.

Those parties must give notice to the AER of any act or omission which partly or wholly constitutes non-compliance with the Rules. In accordance with clauses 9.4.4, 9.12.3 and 9.34.6 of the Rules, the relevant parties have notified the AER that there were no matters of non-compliance for the June quarter.

#### AER assessment

The AER is satisfied that there were no instances where the actions of participants classified as a Smelter Trader, Power Trader and Nominated Generators materially affected the efficient operation of the market during the quarter.

## 3.3 Technical standards compliance

The AER wrote to all scheduled generators in October last year to emphasise the importance of compliance with the Rules related to technical performance standards and to encourage generators to work with NEMMCO and network service providers to ensure that the technical standards framework and the ongoing compliance monitoring programs, required under the Rules, were quickly and completely established.

In February this year the AER became aware that there are a large number of generators whose current registered performance standards were incomplete.

In addition, there are a number of registered performance standards that are too low or too high. There are some generators, which as a result of jurisdictional derogations, have registered performance standards that are lower than the actual plant capability and are significant to system security. There are also generators which have performance standards that are significantly higher than the actual plant capability.

The AER wrote to NEMMCO, the National Generators Forum (NGF) and the standing committee of officials (SCO) in April urging industry participants, NEMMCO and network services providers to work towards a pragmatic solution expeditiously in relation to those generators whose current registered performance standards are either incomplete or incorrect.

Since then, the NGF and NEMMCO have jointly determined a transition process to register the actual capability of all generators and to ensure all compliance programs are in place for those generators by 30 June 2007. Industry and NEMMCO have committed to work towards a solution. The AER and the AEMC have also been involved in the development of this process.

The intention of this transition process is to determine performance standards for those generators that do not yet have registered performance standards and will reopen a limited number of registered performance standards:

- that are significant to system security where NEMMCO considers the registered standard is not the actual plant capability and needs to be reassessed due to significant system security requirements; or
- where the participant considers the registered standard is significantly above the actual plant capability.

This process requires changes to the Rules that will take some time to come into effect. In order for this process to be completed on time, and until those changes are approved, parties have committed to act as if the proposed Rules are in place.

The AER will continue to monitor the progress of this matter.

# 4 Investigations

# 4.1 Investigation into the events of 31 October 2005

The market was significantly disrupted by a forced network outage on one of the major transmissions lines between Wallerawang and South Sydney on 30 October 2005 and the need for a further network outage to facilitate repairs the following day.

There were a number of issues arising out of this event that required further examination. The AER expects to complete its review of this event in the September quarter.

## 4.2 Investigation into the events of 24 February 2006

At 4.40pm on 24 February 2006 both South East – Tailem Bend 275kV circuits in South Australia tripped during switching to isolate a circuit breaker at Para Substation. The South Australian region remained connected to the remainder of the national market via the Murraylink interconnector and an AC interconnection via the 132kV subsystem.

NEMMCO published a report into the event on 23 May 2006. The report stated that:

"A review conducted by ElectraNet SA has found no evidence to suggest the reactor protection operation can be initiated by a credible network event other than a manual switching operation (energisation of a short 275 kV bus section) at Tailem Bend SS."

The report went on to state:

"....as a precautionary measure, when manually switching any bus sections at Tailem Bend (not including energising transmission lines), NEMMCO will reclassify the loss of both Tailem Bend – South East 275 kV lines as a single credible contingency and apply appropriate constraints on interconnector flow."

"The precautionary measures detailed above will continue to apply until the cause of the reactor protection operations is both ascertained by ElectraNet SA and the protection fault is rectified..."

Following the publication of the NEMMCO report, the AER wrote to ElectraNet seeking further information with respect to the requirements of schedule 5.1 and clause 5.7.4(a1) of the Rules. Specifically the AER requested information to confirm:

- how ElectraNet monitors the performance of its facilities with respect to Schedule 5.1;
- the extent of periodic testing of the performance of those facilities upon which power system security depends; and
- details with respect to the performance requirements of clause 5.7.4(a1)

#### AER assessment

Based on the information provided by ElectraNet, the AER is satisfied that the procedures that ElectraNet has in place meet the requirements of clause 5.7.4. Further, the AER is aware that ElectraNet has taken additional measures and is still evaluating the matter to prevent this issue from re-occurring.

### 4.3 Investigation into the events of 22 March 2006

On 22 March 2006, the No 1 220kv bus at Ballarat Terminal Station in Victoria tripped during testing of the Ballarat to Terang 220kV line protection. NEMMCO published a report into the event on 15 June 2006. The report stated that the incident resulted in the system being in an insecure state for a period of four minutes and caused a significant reduction in flows on the Victoria to Snowy and Murraylink interconnectors for a single dispatch interval. The report also stated that

"SP AusNet has advised that the contractors were on site at BATS testing the protection on the Ballarat-Terang 220kV line prior to the TGTS line being placed into service via a new circuit breaker onto the No.1 Bus. The links to the Back Up protection were not opened and during tests a Back Up trip was sent to the X Bus Trip relay, and tripped the No.1 220 kV Bus."

The report also stated that:

"SP AusNet has advised that the contractors involved have been made aware of the cause of the trip."

The AER wrote to SP AusNet, regarding this incident, seeking further information with respect to the requirements of clause 4.3.4(a) of the Rules.

Clause 4.3.4(a) requires that a Network Service Provider must use reasonable endeavours to exercise its rights and obligations in relation to its networks so as to cooperate with and assist NEMMCO in the proper discharge of NEMMCO's power system security responsibilities.

The AER sought to understand what follow-up steps SP AusNet had taken following this incident and information on any measures SP AusNet has instituted to ensure that such an event will not reoccur in the future.

#### AER assessment

Based on the information provided by SP AusNet, the AER notes the steps taken by SP AusNet, following the incident, to increase awareness of its work parties, and to minimise the potential for recurrence.