

ABN 94 072 010 327

Melbourne

20 December 2007

Mr Steve Edwell Chairman AER GPO Box 520 MELBOURNE VIC 3001

Dear Mr Edwell,

PROGRESS ON ACTION BEING UNDERTAKEN BY NEMMCO TO ADDRESS ISSUES ARISING FROM THE INCIDENT OF 16 JANUARY 2007

NEMMCO has successfully completed the majority of the actions to address the areas identified by NEMMCO in our review of the incident of 16 January 2007 and relevant issues raised by the AER in its own report on this incident.

1. Consistency and Transparency of Reclassification Decisions

To ensure the consistency and transparency of NEMMCO's reclassification process and criteria. NEMMCO, closely supported by the TNSPs, has developed a more rigorous process for decision making regarding the need to reclassify non-credible contingencies due to bushfires. This sets down a clearly defined decision making process which ensures that:

- All critical factors are taken into account when making a decision as to whether or not to reclassify a non-credible contingency as a credible contingency due to bushfire risks; and
- The Market is well informed of material risks due to bushfires even where they are not considered significant enough by NEMMCO to justify reclassification.

The procedure sets out the responsibilities of the different parties in the process and the required paths of communications regarding details of the threat. It is undergoing a final round of consultation with the TNSPs prior to implementation this summer.

This work has initially concentrated on bushfire threats but will now be extended to look at other threats such as lightning.

The process will then be reviewed from time to time and adjusted on the basis of experience.

In addition, the INDJI Watch bushfire monitoring system has been installed in the NEMMCO Control Centres. This monitoring system which is also used by a number of the TNSPs will improve the information available to NEMMCO regarding progress of bush fire threats.

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Measures have also been implemented to improve the level of communication to market participants regarding potential risks. The steps taken are in the following two main areas:

- O A new emergency communications system has been implemented to enable the Power System Operations Manager to initiate the broadcast of a brief e-mail or SMS message to a wide distribution list of stakeholders. It would be envisaged that this would be done within 5 minutes of the Manager having assessed the impact of a major power system event. This would be followed by a more detailed market notice within 15 minutes.
- Upon receipt of advice of any circumstances which might affect power system security, either from a registered participant under Rule 4.8.1 or from other operational sources, NEMMCO will issue a Market Notice that it has been made aware of such circumstances even if a decision is made at that time that the likelihood of the event is not significant enough to trigger a reclassification.

We note that the AER will soon be proposing Rule Changes which make it clear that NEMMCO has full responsibility for the reclassification process and to make the reclassification process more transparent, rigorous and consistent. NEM MCO has at all times understood that it has full responsibility for reclassification decisions but stands ready to participate in the consultation process to establish Rules to deliver the AER's goals.

2. Load Shedding

The AER's recommendation to establish formal and effective communication processes between all parties involved in load shedding has been included in the Automatic Under Frequency Load Shedding scheme (AUFLS) review and development work. These revised processes are expected to be agreed to and in place by mid 2008.

NEMMCO has also worked with VENCorp to identify any load shed blocks where there may have been significant delays in the operation of the AUFLS relays. VENCorp will check the operation of the relays at these sites by mid 2008.

3. Load Restoration

The initiatives that have been undertaken or are in progress in order to improve the management of load restoration are:

- The constraint library has been enlarged to more effectively address situations where islanding takes place away from regional boundaries.
- O During the incident, including when some customer load had not all been restored, NEMMCO maintained reserve to avoid further under frequency load shedding. This is a requirement under the Frequency Operating Standard, so that the loss of the largest generating unit would not result in under frequency load shedding. On 6 November 2007 NEMMCO wrote to the Reliability Panel to seek its requirements as to the required levels of reserve when load is still required to be restored.
- NEMMCO has included in its on going control room training, a session to emphasise the need to increase regulation requirements significantly above the standard levels during load restoration to cater for the uncertainty in the actual timing of such load restoration.
- To assist in decision making during load restoration events, NEMMCO has upgraded its general guidelines for load restoration to further assist in identification and choice of options. The guidelines will emphasise the need to maintain a flexible approach and will emphasise the need to be prepared to change from one approach to another if unexpected difficulties arise and if possible to run compatible options in parallel. Overall the guidelines emphasise the goal of minimising unserved energy while adhering to the Power System Security and Reliability Standards issued by the Reliability Panel.

- As a longer term initiative, NEMMCO will develop improved analysis tools to assist
 operational staff in evaluating the rate at which load can be progressively restored given the
 prevailing generating capacity, demand and FCAS reserves. Completion of this work is
 scheduled for mid 2008.
- The ability of TNSPs to quickly manually reclose transmission circuits that have "locked out" due to bushfire trips will impact load restoration times as well as being a factor to consider when determining whether to reclassify multiple events as a credible contingency. There are different policies adopted by the TNSPs on when transmission lines can be manually reclosed following the "locking out" of an automatic reclose attempt. NEMMCO has facilitated discussions with the TNSPs to ensure relevant information on reclose risks is shared between those setting these policies.
- The Demand Offset Facility (DOF) which is designed to assist dispatch in load restoration situations could not be effectively operated at the NEMMCO Control Centre. To address this problem, further training was conducted on the existing interface for the DOF. The interface was subsequently modified to address the issues which created difficulties on 16 January. A second round of training was then conducted on the revised interface.

4. VoLL Override

There are various interpretations of the Rule provision on setting the VoLL override condition. NEMMCO agrees with the view of the AER that the current Rules cannot be effectively implemented manually under power system emergency conditions and supports the recommendations for Rule changes.

We note that the AER will soon be proposing Rule Changes to achieve this outcome.

5. Intervention Pricing

In order to enable NEMMCO to implement intervention pricing under disturbed power system conditions, NEMMCO has undertaken the following actions:

- Changes in the Market Management Systems have been introduced to improve flexibility in developing appropriate constraint equations to trigger intervention pricing.
- Modifications to the interface necessary to make the operation of intervention pricing more intuitive and therefore more suitable for operational use under stressed conditions will be implemented by mid 2008.
- The triggering of intervention pricing has been given greater emphasis in operator refresher training.

6. Performance of Generators and FCAS Providers

All issues regarding generators and FCAS providers in the Victorian and South Australian Regions which were identified during NEMMCO's investigations have been followed up with the Participants involved.

All issues except one have been addressed by the relevant Participants to the satisfaction of NEMMCO. In the case of the remaining issue involving Torrens A generating units, AGL has completed its initial investigations and provided a report to NEMMCO on 18 December 2007. This report indicates that there are continuing issues with the performance of Torrens Island A plant under over frequency conditions. NEMMCO will be discussing this further with AGL over the next few weeks.

NEMMCO has implemented processes to inhibit the dispatch of load shedding FCAS providers when they have not re-offered their FCAS services availability to zero when out of service.

NEMMCO has also conducted a review of the performance of generating units and FCAS providers in the Tasmanian region during this event. This review has not identified any significant issues.

7. Other Work Streams Proposed by NEMMCO

Consideration of whether better protection or control schemes could have minimised the flow-on effects of the initiating event

Initial studies have suggested that the rapid tripping of two or more potlines would have been sufficient to prevent the cascade of failures. These initial results were reviewed by VENCorp and in response to comments further studies were then undertaken. After receiving further comments from VENCorp, NEMMCO is now in the process of completing the final set of studies to cover the impact of another contingency (whilst remaining interconnected following the loss of both Dederang-South Morang lines) so that a practical and valuable scheme could be developed.

Assessment of whether there was adequate contingency FCAS available in the electrical islands to cover the loss of the largest generating unit or load block in accordance with the requirements of the Frequency Operating Standards

This work will commence in January 2008. The possible scope of this work is quite broad and at this stage a completion date is unclear. This will become clearer in early 2008 after the scope of this work has been more clearly defined.

Feasibility of alternative actions to improve the speed of reconnection of islands and restoration of customer loads

This work has involved the preparation of general guidelines for load restoration to assist in identification of options and in choosing between these. The guidelines emphasise the need to maintain a flexible approach. It emphasises the need to be prepared to change from one approach to another if unexpected difficulties arise and if possible to initiate a run of compatible options in parallel. The guidelines emphasise the overall goal of minimising unserved energy without prejudicing power system security. The procedures have now been updated to include these guidelines.

Assessment of the level of security of the power system when Victoria and New South Wales were resynchronised via the Buronga – Darlington Point 220 kV line

Data from the on-line security monitoring systems such as contingency analysis and dynamic stability analysis has been reviewed to confirm that power system security was maintained. Discussions have also been held with TransGrid and SP AusNet regarding the synchronisation process and no problems were identified. A report has been prepared and SP AusNet comments on the report have been received. NEMMCO is awaiting comments from TransGrid before finalising the report.

Changes in AGC System Design to cater for a larger number of frequency control areas

The current design of the AGC system can only accommodate three frequency control areas (one in Tasmania and two on the mainland). During the event on 16 January there was at one stage three frequency control areas on the mainland. This required the frequency in the Victorian region to be managed by manual methods. NEMMCO is working to enhance its AGC system to accommodate a larger number of frequency control areas. This work is expected to be completed by November 2008.

8. Conclusion

NEMMCO has successfully completed the majority of the actions required to address relevant issues arising from the incident of 16 January 2007. Most of these remaining actions are expected to be completed by mid 2008.

NEMMCO will shortly be issuing a report to the Market on its progress on these actions once the outstanding details of the new process for reclassification of non-credible contingencies due to bushfire risks have been agreed upon with the TNSPs.

Yours sincerely,

LESLIE V HOSKING

Managing Director and Chief Executive Officer