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FROM THE OFFICE OF THE
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Dear ~~Mr~~ Neville Henderson

REL0048 – Issues Paper – Guidelines for Identifying Reviewable Operating Incidents

Thank you the opportunity to reconsider our proposed changes to the Guidelines for identifying Reviewable Operating Incidents. AEMO had considered that the proposed changes would allow us to better focus the use of our resources while not materially reducing the value of the reports we publish. The consultation process run by the Reliability Panel has raised concerns that the proposed changes may be seen by some market participants to be detrimental. We have therefore reviewed the submissions received in relation to the issues paper prepared by the Panel on AEMO's proposal to vary the above guidelines.

Submissions from Origin Energy and private generators operating in the National Electricity Market expressed concerns that the proposal would reduce transparency in the market. This could occur if the proposal limited public reporting on incidents that affect a significant amount of generation in the NEM.

The submissions were primarily concerned with the market consequences rather than power system security impacts of an event. AEMO is concerned with ensuring participants, potential participants and interested parties do have access to information on the operation of the markets and, in this case, the interactions between network incidents and energy market outcomes. However we question whether these guidelines are an appropriate mechanism to provide for reviews of that nature.

The Guidelines under review are established under clause 4.8.15 of the National Electricity Rules. This clause is within section 4.8 entitled "Power System Security Operations" and is focussed on developing experience from incidents which had, or could have had, a material impact on system security. These incidents are defined as reviewable operating incidents:

Reviewable operating incident means:

(1) an incident comprising:

(i) a *non-credible contingency event* or multiple *contingency events* on the *transmission system*; or

(ii) a *black system* condition; or

(iii) an event where the *frequency* of the *power system* is outside limits specified in the *power system security* and *reliability standards*; or

(iv) an event where the *power system* is not in a *secure operating state* for more than 30 minutes; or

(v) an event where *AEMO* issues a *clause 4.8.9 instruction* for *load shedding*,

Further AEMO "must conduct a review of every reviewable operating incident in order to assess the adequacy of the provision and response of *facilities* or services, and the appropriateness of actions taken to restore or maintain *power system security*." Reviews under this clause are therefore selected on the basis of their potential or actual impact on system security and the report specifically seeks to build understanding of the security response. This would appear to be an inappropriate framework within which to put requirements for the investigation of incidents with market impacts. Unfortunately we cannot point to a specific clause requiring the investigation of incidents with a significant, or potentially significant, market impact. The closest is probably the requirement to provide the congestion information resource. AEMO believes this may indicate an existing omission in the NER rather than one created by AEMO's proposal.

Notwithstanding the concern that these guidelines are not the place to implement a broader requirement to provide information on incidents with market impacts, AEMO considers that the guidelines could be modified to cover more significant incidents occurring on the distribution network. The current guidelines do not require AEMO to report on incidents that occur on a distribution network, regardless of the impact on generation, unless the frequency of the power system was outside the relevant standards.

AEMO considers that the requirement could be widened by amending the guideline in relation to clause 4.8.15(a)(3) of the National Electricity Rules (NER). Currently, the guideline includes "incidents on a distribution network that affect the security of the transmission system". This could be expanded in a number of ways, such as:

- A non-credible contingency affecting one or more scheduled or semi-scheduled generating units;
- A non-credible contingency affecting one or more generating units that does not meet AEMOs exemption guidelines in clause 2.2.1(c) of the NER;
- Use a tiered structure as proposed in the private generators' submission.

AEMO would propose the first of these options as the preferred approach. Whichever approach is adopted by the Panel, AEMO will continue to report on market events through its existing published price events and market operations review reports. AEMO currently publishes these reports under general powers with the intention of improving transparency. There are not any specific provisions in the NER requiring these reports.

Please find attached proposed modifications to the Guidelines which would implement this preferred approach. If you or your staff would like further information on these matters, please contact Brian Nelson on (02) 9239 9132 or brian.nelson@aemo.com.au.

Yours sincerely

Matt Zema
Managing Director and Chief Executive Officer

Attachments: Proposed Amendments to Guidelines for identifying reviewable operating incidents

Proposed Amendments to Guidelines for identifying reviewable operating incidents

When determining whether a power system operating incident is of significance under clause 4.8.15(a), and hence reviewable, ~~NEMMCO~~AEMO should apply the following guidelines:

1A. An operating incident will be considered a reviewable operating incident only if

- One of more of the transmission elements, which were forced out of service, has a nominal voltage of 220kV or above ; or
- The event resulted in a threat to the power system security of the higher voltage transmission network (that is with nominal voltage 220kV or above)

1B. Under clause 4.8.15(a)(1)(i) Apply the definition of a non-credible contingency in clause 4.2.3 and define a multiple contingency event as reviewable for when the events, including any inappropriate automatic or manual operation of transmission elements occur within 30 minutes of each other and the residual impact of an earlier contingency interacts with a later contingency.

2. Under clause 4.8.15(a)(1)(ii): Apply the definition of "black system" in Chapter 10 of the Rules. For this purpose a major supply disruption affecting a significant number of customers is considered as one resulting in loss of at least 60% of the predicted regional load with the exception of:

   - regions with minimal load ~~(for example the Snowy region):~~ and
   - the Queensland region, where the loss of 60% of the load (excluding the pot line loads) in any of the Northern Queensland, Central Queensland or Southern Queensland areas is also considered to be a major supply disruption.

3. Under clause 4.8.15(a)(1)(iii): Define as reviewable all incidents where the frequency is outside the operational frequency tolerance band (currently set by the Panel at 49 to 51 Hz on the mainland and 47.5 to 53 Hz in Tasmania).
4. Under clause 4.8.15(a)(1)(iv): Subject to 1A above, define all incidents where the power system is insecure for more than 30 minutes as reviewable operating incidents.
5. Under clause 4.8.15(a)(1)(v): Define all incidents where there is load shedding due to a clause 4.8.9 instruction as reviewable operating incidents.
6. Under clause 4.8.15(a)(3): A reviewable operating incident includes incidents that satisfy one or more of the following descriptions:

   a) subject to 1A above, the power system is not in a satisfactory operating state for more than 5 minutes (excluding issues resulted to potential oscillatory or transient stability);

   b) ~~NEMMCO~~AEMO's on-line oscillatory and transient stability monitoring systems detecting a potential instability for 30 minutes, continuously;

   c) incidents on a distribution network that affect the security of the transmission system including:

- non-credible contingencies that cause loss of generation or capacity of one or more scheduled generating units or semi-scheduled generating units;
- faults of extended duration within the distribution network where these have had a material impact on the transmission system; and
- loss of multiple embedded generating units the total capacity of which exceeds the capacity of the largest generating unit within any region including an affected generating unit.

d) incidents that result in the operation of under frequency or over-frequency protection and control schemes including:
   - automatic under frequency load shedding; and
   - automatic tripping of a generating unit due to over-frequency; or

e) where the AEMC Reliability Panel requests ~~NEMMCO~~AEMO to review and report on an incident under clauses 4.8.15(b) and (c)9, after considering whether:
   - the incident represented a threat to system security; and
   - the benefits to the NEM are likely to exceed the cost to ~~NEMMCO~~AEMO and the affected participants.[1]

[1] The Panel considers that the following parties should be able to apply to the Panel for it to request ~~NEMMCO~~AEMO to investigate an incident:
- a registered participant, or group of registered participants;
- a participating jurisdiction, or group of participating jurisdictions; or
- ~~NEMMCO~~AEMO (for clarification).