

Significant Electricity Network Incidents

Objectives, definitions and reporting requirements

1 Objective

To provide the Industry & Investment NSW (I&I NSW) with timely and adequate initial information, and final detailed report where required, on all **Significant Electricity Network Incidents** (SENI). These include:

- **serious electricity network accidents;**
- **serious electrical accidents** (a subset of serious electricity network accidents);
- **actionable safety incidents**
- **actionable asset incidents**

Note1: The Office of the Minister for Energy also requires timely and adequate information on **electricity network incidents causing, or likely to cause, media interest or public concern** (as defined in 2.2 below). Usually this would mean **immediate** reporting to the Minister for Energy's Energy Policy Advisor and a copy to I&I NSW.

Note 2: **Customer Installation Incidents** not involving the electricity supply network are not covered by this reporting regime. For a full definition of reporting requirements relating to customer installation incidents, refer to I&I NSW's Network Management Report Outline. The Office of Fair Trading also has its own requirements for the reporting of these incidents on an EAA3 form or its replacement.

Note 3: Annual reporting requirements are covered by I&I NSW's Electricity Network Management Report Outline, which covers broader reporting requirements than is covered by this requirement.

2 Definitions

2.1 Significant electricity network incident

A **significant electricity network incident** is one which involves the electricity network and which meets one of the following definitions 2.1.1 to 2.1.4.

For the purposes of incident reporting, the following terms are defined as having the following meanings:

"in which electricity is involved" means that electricity either initiated the accident (e.g. a fall caused by receiving an electric shock), or was directly involved in the injury suffered (e.g. electrical burns, flash burns, or electric shock). Note that a fall where no shock or flash was received should not be included in this category; nor would a pole failure (unless electricity also initiated or caused an injury).

"is hospitalised" means formal admission to a hospital, and does not include an examination or observation as an outpatient in the emergency/casualty ward (however, treatment in the casualty section would come under "receives treatment from a health care professional").

"receives treatment from a health care professional" means the application of medicines, surgery etc. by a health care professional. A medical check only, where no treatment is required, is not considered to be treatment.

"unable to attend work for any period of time" is where the injury is the reason for being unable to attend work. Time off work for a medical check or observation is not considered to be "unable to work", even though the person may have missed some work to get a medical check.

2.1.1 Serious electricity network accident

A **serious electricity network accident** is an accident involving the electricity network (including accidents remote from the network but for which the network was responsible) as a consequence of which a person dies or suffers permanent disability, is hospitalised, receives treatment from a health care professional, or is unable to attend work for any period of time, but excluding incidents where network support structures are impacted by motor vehicles unless electricity is involved in the injury.

Note: A serious electrical accident, which requires the involvement of electricity in the accident, is a subset (see diagram) of serious electricity network accidents, which requires the involvement of the network but not necessarily of electricity.

2.1.2 Serious electrical accident

A **serious electrical accident** is an accident involving the network (including accidents remote from the network but for which the network was responsible; e.g. faulty neutral causing potential on water pipes or electrical installation earth, incident at customer switchboard etc.):

- in which electricity is involved; and,
- as a consequence of which a person dies or suffers permanent disability, is hospitalised, receives treatment from a health care professional or is unable to attend work for any period of time.

2.1.3 Actionable safety incident

An **actionable safety incident** is an incident, which is not a serious electricity network accident, involving the electricity network, but there was a significant risk that a person (employee or public) could have been seriously hurt by that incident, and meeting either of the following criteria:

- a. the circumstances of the incident indicate that there is a duty of care to inform other network operators who may need to act to properly control a risk of serious injury (e.g. design defect in network equipment causing explosion and risk of serious injury); **or**
- b. the risks indicated by the incident, and the probability of occurrence of the incident, are such that, in order to properly manage the safety risks, the network operator needs to modify its network management plan (including public safety awareness plan) or any standards, procedures, systems or other documents required to be implemented under that plan.

2.1.4 Actionable Asset Incident

An **actionable asset incident** is an incident involving network assets, but not persons (employee or public), that falls within any of the following three categories:

- a. An incident where a **network operator's published reliability planning standards are not met** e.g. loss of 15 MVA for more than 10 minutes.
- b. A **major or prolonged reliability event** e.g. a loss of supply to more than 20,000 customers for more than one minute, or to multiple urban customers for more than 12

hours, or to multiple rural customers for more than 24 hours (other than as a result of major natural events, planned outages, failure of another operator's transmission system or directed load shedding, operator error or third party damage). Causes of these outages would typically involve failure of a network asset such as a type of cable, termination, CT, VT, transformer, surge diverter etc.

Note: For TransGrid, the agreed threshold for a significant incident is loss of supply to a customer for greater than 0.1 system minutes.

c. An incident or incidents where there have been failures of a particular network element type, and as a consequence network management plans may need review along with standard designs, purchasing standards etc, and this may be of interest and relevance to other network operators and I&I NSW. Examples may be performance of a particular pole type or conductor type during a bushfire event or failures of a particular type of cable, termination, CT,VT, Transformer, Surge Diverter etc. that is not captured by the reliability of supply criteria in (a.) and (b.) above.

Note: The SENI reporting has a NSW focus and does not replace the "duty of care" of network operators to notify and engage interstate, national or international bodies of significant events. Example organisations are ENA, EESA, EEA(NZ), CIGRE etc.

2.2 Electricity network incident causing, or likely to cause, media interest or public concern

An Electricity Network Incident Causing, or Likely to Cause, Media Interest or Public Concern is any incident which has generated, or is likely to generate, interest by the media, or create a wider public concern.

Note: For example, widespread network damage by a major natural event is not regarded as a Significant Electrical Network Incident, but would be included in this category as it would be likely to generate media interest or public concern. Sometimes the media interest can be generated from press releases by a distributor. Conversely, a Serious Electrical Accident that only requires superficial treatment and one hour off work would not be included in this category, even though it is a significant electricity network incident.

3 Reporting Requirements

3.1 Serious electricity network accident, serious electrical accident or actionable safety incident

Provide immediate (at least by next working day) verbal advice to Designated Officer, lodge initial SENI-1 Form within seven days and final SENI-1 Form within 3 months. I&I NSW may also require a more detailed supplementary report (as outlined below) covering circumstances, causes and preventative actions for any of these **serious electrical accidents**.

3.2 ACTIONABLE ASSET INCIDENT

Provide immediate (at least by next working day) verbal advice to Designated Officer in the case of a **reliability event** (refer (a) or (b) in the definition) to be followed by initial written advice on SENI-2 Form within seven days and final SENI-2 Form within 3 months. For

category (c) events please provide initial written advice on SENI-2 Form within seven days and final SENI-2 Form within 3 months. I&I NSW may also require a more detailed **supplementary report** (as outlined below) covering circumstances, causes and preventative actions for any of these **actionable asset incidents**.

3.2.1 Electricity network incident causing, or likely to cause, media interest or public concern

These incidents are of primary concern to the Minister for Energy's Energy Policy Adviser. Whatever form of advice is provided to the Minister's office, e.g. facsimile, email, press release, etc a **copy** is also to be provided to the designated officer at I&I NSW. This will allow I&I NSW to be in a position to provide timely and appropriate advice to the Minister's Office if required.

There is a likelihood that **some** of these incidents will also be **significant electrical network incidents**, and that the appropriate SENI-1 or SENI-2 Form will also need to be completed.

Hence, all incidents that create media interest are required to be reported to the Minister's Office but only some of these will be reported as a SENI. Conversely, very few SENI's will themselves create media interest.

3.3 Supplementary report (only where requested by I&I NSW)

A supplementary report, if requested by I&I NSW, shall be provided to the Designated Officer within the agreed timeframe, covering at least the following information:

- date & time
- place
- network asset(s) involved
- investigating teams involved
- detailed circumstances of the incident
- impact of the incident on the network operator and on others, including the environment, the public, customers and businesses (e.g. injuries, loss of supply – extent and duration, impact on security of supply standards, property damage, environmental issues, restrictions on other businesses, damage to network or infrastructure)
- details of restoration of supply or network assets if applicable
- the most likely causes and contributory causes. I&I NSW is interested in high level causes such as network management plan or maintenance deficiencies, as well as lower level causes such as “arcing fault in end box” or “failure to follow procedures”
- all actions taken or planned to prevent similar incidents.
- any other information on the incident requested by I&I NSW.

Note 1: This report may be in any agreed form, or on the pro-forma SENI-3 Form, providing that all of the required aspects are addressed. Where the lodgement is by hard copy or facsimile, an email copy is also required. Where not all of the information required is available within the agreed period, an interim report is required by the agreed date, with comments inserted in the relevant parts on when

the information will be provided, in which case a follow-up report must be lodged addressing all required aspects.

Note 2: This report does not replace the need to submit immediate advice, the appropriate forms or annual reports where these are specified.

4 NOTIFICATION DETAILS

All verbal advice to be provided, in the first instance, to the Designated Officer or, if he cannot be contacted, to the Manager.

Designated Officer:

Ms Nyrie Palmer
Senior Project Officer
Tel: 8281 7774
Mob: 0459 821 229

Manager:

Mr Peter Lansdown
Manager Energy Networks Compliance
Tel: 8281 7739
Mob: 0437 895 319

All completed SENI Forms shall be forwarded to:

seni@dwe.nsw.gov.au

with confirmation by post (if requested) to:

Industry & Investment NSW
GPO Box 3889
SYDNEY NSW 2001

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