



Electricity Network Performance Report New South Wales

Transmission

Annual Report Outline

Issued April 2012

New South Wales Electricity Network Performance Report
Transmission Network Service Provider
Annual Report Outline

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Introduction

The *Electricity Supply (Safety and Network Management) Regulation 2008* (the Regulation) confers technical (safety and reliability) regulation functions, powers and duties on NSW Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS). The Regulation (Clause 21) requires network operators to measure, report on, and publish network performance on an annual basis. This *Electricity Network Performance Annual Report Outline* (Outline), provides the Director-General's requirements for inclusion in the Electricity Network Performance Reports (ENPRs) in accordance with the Regulation and the *Design, Reliability and Performance Licence Conditions 2007* (Licence Conditions).

This ENPR is designed to report actual performance, in each financial year, against the criteria and key performance indicators established in the Network Management Plan (NMP). Therefore the report should complement, not duplicate the NMP. It is not expected that textual elements of the ENPR will duplicate elements already documented in the NMP.

Network operators should keep textual commentary to the bare minimum required to provide comments on significant trends or issues. Graphics should not be included for decorative purposes. The report is expected to be no more than 50 pages in length. The headings in this Outline correspond to those required in the network operator's report. Detailed formatting and presentation of the information is at the discretion of network operators.

The Final ENPRs are to be provided as follows:

- 31 August – Electronic copy of the final draft of the ENPR is to be provided to the Manager, Energy Supply and Networks Performance, Office of Resources and Energy, DTIRIS.
- 30 September – DTIRIS will provide any comment and or request further information on the final draft ENPR.
- 31 October – Hard copy of the final ENPR with CEO certification is to be lodged with the Deputy Director-General, DTIRIS.
- 30 November – Each network operator is to publish the ENPR on its web site.

1. Profile

1.1 Overview

This section is to provide an overview of the organisation in terms of size, resources and details of the network. It should include:

- Transmission Network area map
- Overview of the organisation, the network and any relevant trends or major issues
- Customer numbers
- All data as listed in Table 1.1
- Any other statistics that may provide an understanding of the nature of the network.

Table 1.1 Network Operator Statistics

| | Number at end of Previous Year | Number at end of Current Year |
|--|--------------------------------|-------------------------------|
| Customer Numbers (Total) | | |
| Maximum Demand (Aggregated System MW) | | |
| Energy Received to Year End (GWh) | | |
| System Loss Factor (%) | | |
| High Voltage Overhead (km) | | |
| High Voltage Underground (km) | | |
| Substation (Number) | | |
| Structures (Number) | | |
| Poles (Number) | | |
| Employees (Full Time Equivalent Number) | | |
| Contractors (Full Time Equivalent Number) | | |

1.2 Capital works program

Network operators should provide a brief overview of their capital works program including reasons for any unusual items.

Table 1.2 Capital works program trend

| | Previous Years | | | | Current Year |
|-----------------------------|----------------|--|--|--|--------------|
| Year | | | | | |
| Capital works program (\$M) | | | | | |

2. Network Management

2.1 Overview

This section is to cross-reference the published NMP and to outline briefly any issues, new initiatives and achievements during the reporting year against the published technical service or performance standards, and previous performance reports (100 words).

2.2 Network Complaints

Table 2.1 Complaint Performance Data

| | Previous Years | | | | Current Year |
|---|----------------|--|--|--|--------------|
| Years | | | | | |
| Complaints Total | | | | | |
| Complaints regarding Vegetation Management | | | | | |

3. Network Planning

3.1 Overview

This section is to cross-reference the published NMP and outline any issues, new initiatives and achievements during the reporting year against the published network planning approach/methodology and how this relates to the legislative framework and the NSW Government's Total Asset Management (TAM) System (100 words).

3.2 System Design Criteria (Planning Standards)

The *system design criteria* should set out:

- input standards to be used by a network operator in planning its network
- requirements for load-forecasting and contingency-planning methodologies intended to achieve operational outcomes
- the design planning criteria.

3.3 Demand Management

Transmission network service providers are required to investigate non-network options including Demand Management (DM) before extending or increasing the capacity of the network in accordance with the requirements of the National Electricity Law. The report shall provide a brief description of the distributor's DM philosophy and strategies.

The report shall provide a **brief** narrative description of the DM approach adopted and strategies employed and outcome achieved.

4. Asset Management

4.1 Overview

Include a very brief narrative description of the approach, objectives and main elements of your asset management strategy (100 words as this is covered in the NMP).

4.2 Technical Service Standards

Provide a commentary on the technical service standards used and where they may be obtained.

4.3 Transmission Reliability

Network operators should provide a narrative overview including comment on:

- performance overview and trends such as general weather conditions, including influences on performance (positive and negative)
- feeders or regions requiring remedial actions, and overview of remedial actions.

Table 4.1 Transmission Asset Availability (%) Trend

| | | Years | | | | |
|--------------------|-----------|-------|--|--|--|--|
| | Objective | | | | | |
| Transmission Lines | | | | | | |
| Transformers | | | | | | |
| Reactive Plant | | | | | | |

Note: 1. A measure of the circuit availability compared to the total availability if no outages had occurred.
2. Outages will generally occur for maintenance purposes and thus 100 per cent is inherently unachievable.

Table 4.2 Network Reliability Trend (Off Supply Event Numbers)

| | | Years | | | | |
|-----------|-----------|-------|--|--|--|--|
| | Objective | | | | | |
| Measure A | | | | | | |
| Measure B | | | | | | |
| Measure C | | | | | | |

Table 4.3 Outage (Un-Planned) Average Duration (Minutes) Trend

| | | Years | | | | |
|-----------|--|-------|--|--|--|--|
| Objective | | | | | | |
| | | | | | | |

Table 4.4 Connection Point Interruptions (Unplanned) Current Year

| Connection Point Interruptions (Unplanned) Current Year | | |
|---|---------------------|---------------------------------------|
| Connection Point | Interruption Number | Interruption Duration Total (Minutes) |
| | | |
| | | |

Table 4.5 Connection Point Numbers End Current Year

| Connection Point Numbers End Current Year | |
|---|--|
| Number of Connection Points (Total Number) | |

5. Network Safety

5.1 Overview

This section is to cross-reference the chapters on safety in the published NMP and provide a narrative of policies and principles and objectives, safety strategies and approach to safety management covering public and network worker safety.

The injuries reportable in this section are defined in the guidelines for the Significant Electricity Network Incidents (SENI) Scheme that was current at the time of the incident. The guidelines that are to be used are listed in the following table:

| Date of Incident | Number of injuries | Guideline |
|---------------------|--|--|
| Prior to 1 May 2012 | Serious Electricity Network Accident + Serious Electrical Accident | Significant Electricity Network Incidents Objectives, definitions and reporting requirements February 2011 |
| After 1 May 2012 | Reportable Safety Incidents | SENI Definitions and Reporting Requirements June 2012 |

The year 2012 shall be divided into two columns: one for the period prior to 1 May 2012, and the other for the period after 1 May 2012.

| July 2011 – April 2012 | May 2012 – June 2012 |
|------------------------|----------------------|
| | |
| | |
| | |

5.2 Public Injuries

This section relates to injuries involving the public, which includes public workers and public general. A summary of performance, trends, causes and preventative action implemented are to be provided. Initiatives may be addressed in more detail under Section 9 – Public Electrical Safety Awareness Campaign.

Table 5.1 Public Injuries

| | Previous Years | | | | Current Year |
|-----------|----------------|--|--|--|--------------|
| Year | | | | | |
| Non-Fatal | | | | | |
| Fatal | | | | | |
| Total | | | | | |

5.3 Worker Injuries

This section relates to injuries involving workers and contractors.

Table 5.2 Worker and contractor injuries

| | Previous Years | | | | Current Year |
|-------------|----------------|--|--|--|--------------|
| Year | | | | | |
| Workers | | | | | |
| Contractors | | | | | |
| ASPs | | | | | |
| Total | | | | | |

A narrative description shall be provided for significant incidents, including the number of fatalities, the number of persons injured, circumstances, probable cause and preventative actions taken.

5.4 Major Incident Reports

Distributors shall list all major incidents where reports were provided to the Minister, as required under the Licence Conditions.

6. Bush Fire Risk Management

Each network operator is to report on measures it has in place to indicate compliance with Chapter 4 Bush fire risk management, of their NMP and the performance outcomes of that plan (3 pages only).

Example performance indicators, which should be provided separately for the network and private installations, may relate to:

- Progress/Compliance/Outcomes of inspection activities (including extent of inspections and rate of defects identified)
- Progress/Compliance/Outcomes of audit activities
- Progress/Compliance/Outcomes of follow-up maintenance activities
- Progress with other proactive programs (e.g. customer education).

Table 6.1 Bushfire risk management

| | Previous Years | | | | Current Year |
|--|----------------|--|--|--|--------------|
| Year | | | | | |
| Assets in bush fire prone areas checked by pre-summer inspection % | | | | | |
| Private lines in bush fire prone areas checked by pre-summer inspection % | | | | | |
| Fire ignitions by network assets (Number) | | | | | |
| Complaints from the public regarding preparation for the bush fire season (Number) | | | | | |

7. Public Electrical Safety Awareness

Provide a report on the key issues, Chapter 3 Public electrical safety awareness, of the NMP, any additional initiatives taken, and the outcomes achieved by these (1000 words maximum).

The report should also **summarise** the communications strategy (based on the Plan), setting out:

- Communications media and mechanisms/strategies (including key messages and target audience)
- Analysis of effectiveness of the Plan and campaigns.

8. Power Line Crossings of Navigable Waterways

A report is to be provided on power line crossings of navigable waters. Australian Standard AS 6947-2000 Crossing of waterways by electricity infrastructure provides the design requirements for new crossings and the NSW Maritime Power line Crossings of Navigable Waterways Electricity Industry Code provides the maintenance procedures for existing crossings. The report should provide a textual description of activities undertaken to achieve compliance with the requirements of this Code. Operators should also complete Table 8.1.

Table 8.1 Power Line Crossings of Navigable Waterways Summary

| | Existing (Number) | New (Number) | Incidents (Number)* | Crossings Reconstructed (Number)# | Crossings Identified as Requiring Conversion to Submarine Crossings (Number) |
|--------------------------------|----------------------|-----------------|------------------------|---|---|
| Overhead Crossings | | | | | |
| Submarine Crossings | | | | | |

* Description of incident to be given below.

Description of the modification carried out including sign replacement to be given below.

9. CEO/ Managing Director Declaration

[Name of TNSP]

ELECTRICITY NETWORK PERFORMANCE REPORT [Year]

Declaration by Chief Executive Officer

In submitting this Electricity Network Performance Report (the Report), I declare the Report:

1. Complies with reporting requirements prescribed under the *Electricity Supply (Safety and Network Management) Regulation 2008*, and the “Transmission Network Service Provider Annual Report Outline” (the Outline), as provided by DTIRIS.
2. Has been checked in accordance with recognised quality procedures; and in my opinion, there are reasonable grounds to believe the data, and notes in respect of data contained in this Report, give a true and fair view of the organisation’s performance in respect of the matters contained in the Outline.

NAME:

SIGNATURE:

CHIEF EXECUTIVE OR OPERATING OFFICER/MANAGING DIRECTOR

.....

DATE:.....