



Electricity Supply (Safety and Network Management) Regulation 2002

under the

Electricity Supply Act 1995

Her Excellency the Governor, with the advice of the Executive Council, has made the following Regulation under the *Electricity Supply Act 1995*.

KIM YEADON, M.P.,

Minister for Energy

Explanatory note

The object of this Regulation is to replace the *Electricity Supply (Safety Plans) Regulation 1997*. That Regulation will be repealed on 1 September 2002 under section 10 (2) of the *Subordinate Legislation Act 1989*.

The Regulation makes substantial changes to the planning and reporting regime under the repealed regulation. The principal changes are as follows:

- (a) more extensive planning and reporting requirements for network operators,
- (b) further provision for the auditing of plans lodged by network operators,
- (c) further provision for exemptions from and modifications to the planning and reporting requirements.

The Regulation requires the following plans to be lodged and implemented by network operators, when required by the Director-General of the Ministry of Energy and Utilities:

- (a) a network management plan, for the purpose of ensuring that transmission or distribution systems provide an adequate, reliable and safe supply of electricity of appropriate quality,
- (b) a customer installation safety plan, for the purpose of ensuring the provision of safe electrical installations and connections,

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- (c) a public electrical safety awareness plan, for the purpose of providing a warning to the public of the hazards associated with electricity networks,
- (d) a bush fire risk management plan, for the purpose of ensuring public safety and for other related purposes.

The Regulation makes provision for the content of those plans, auditing of those plans and compliance with those plans.

This Regulation is made under the *Electricity Supply Act 1995*, including section 106 (the general regulation-making power), in particular section 106 (1) (g1) and (g2).

The Regulation is made in connection with the staged repeal of subordinate legislation under the *Subordinate Legislation Act 1989*.

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Electricity Supply (Safety and Network Management) Regulation 2002

Part 1 Preliminary

1 Name of Regulation

This Regulation is the *Electricity Supply (Safety and Network Management) Regulation 2002*.

2 Commencement

This Regulation commences on 1 September 2002.

Note. This Regulation replaces the *Electricity Supply (Safety Plans) Regulation 1997* which is repealed on 1 September 2002 under section 10 (2) of the *Subordinate Legislation Act 1989*.

3 Definitions

In this Regulation:

Director-General means the Director-General of the Ministry of Energy and Utilities.

plan means a plan referred to in clause 5 (1).

the Act means the *Electricity Supply Act 1995*.

4 Notes

Notes included in this Regulation do not form part of this Regulation.

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Clause 5 Electricity Supply (Safety and Network Management) Regulation 2002

Part 2 Plans to be lodged and implemented by network operator

Part 2 Plans to be lodged and implemented by network operator

5 Network operators may be required to lodge plans

- (1) The Director-General may, by notice in writing to a network operator, require the network operator to lodge any or all of the following plans with the Director-General, within such period as may be specified in the notice:
 - (a) a network management plan,
 - (b) a customer installation safety plan,
 - (c) a public electrical safety awareness plan,
 - (d) a bush fire risk management plan.
- (2) A network operator must not fail to comply with a requirement made by the Director-General under subclause (1).

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).
- (3) A network operator must implement any plan that is lodged with the Director-General by the network operator under this clause.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).
- (4) In exercising his or her functions under this clause, the Director-General is to have regard to the following:
 - (a) the size, nature and complexity of the network operator's transmission or distribution system,
 - (b) any inadequacy in the planning, design, construction, operation or maintenance of that system that has given rise to, or may give rise to, a failure to provide an adequate, reliable or safe supply of electricity of appropriate quality.
- (5) This Regulation applies in respect of a network operator only if the network operator is required to lodge a plan under this clause, and only in respect of those plans that it is required to lodge.

6 Network management plans

- (1) The object of a network management plan is to ensure that the transmission system or distribution system to which it relates provides an adequate, reliable and safe supply of electricity of appropriate quality.
- (2) A network management plan must include (but is not limited to) the following:
 - (a) a commitment by the network operator to ensuring the safe operation of its transmission or distribution system, and to giving safety the highest priority over all other aspects of network management,
 - (b) a description of the transmission or distribution system and its design, construction, operation and maintenance,
 - (c) a description of the planning process employed for the purpose of assessing the adequacy of the transmission or distribution system and the need for development of the transmission or distribution system, including if appropriate:
 - (i) demand management methodologies, and
 - (ii) system reliability planning standards on a customer class or group, or geographic basis, for each distinct voltage level,
 - (d) a description of the asset management strategies employed for the purposes of the design, construction, operation and maintenance of the transmission or distribution system, including:
 - (i) risk management and public liability insurance arrangements, and
 - (ii) planned customer technical service standards for quality and reliability of supply,
 - (e) a description of the safety management strategy employed for the purpose of ensuring the safe operation of the transmission or distribution system, including:
 - (i) an analysis of hazardous events, and
 - (ii) the procedures to be implemented in the event of an emergency, and
 - (iii) the procedures and standards designed to ensure that the network operator's employees, contractors to the network operator and their employees and any other persons working on or near the system's electricity

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Part 2 Plans to be lodged and implemented by network operator

- works have the competencies required to undertake the work safely, and
- (iv) a strategy to ensure adherence to safe working procedures,
 - (f) a description of the plan's objectives and of appropriate performance indicators,
 - (g) a schedule of reports to be made to the Director-General in relation to the management and performance of the transmission or distribution system,
 - (h) a description of the codes, standards and guidelines that the network operator intends to follow in the design, installation, operation and maintenance of the transmission or distribution system.
- (3) The plan must comply with Schedule 1.
 - (4) In developing and implementing a network management plan, a network operator must take into account such codes, standards or guidelines as the Director-General, by notice in writing to the network operator, requires to be taken into account in the development and implementation of the network management plan.
 - (5) The plan must specify where it or its implementation departs from the provisions of any such code, standard or guideline and what arrangements are in place to ensure an equal or better outcome.
 - (6) The schedule of reports referred to in subclause (2) (g) must include such reports as the Director-General, by notice in writing to the network operator, directs to be included in the schedule in relation to the management and performance of the network operator's transmission or distribution system.
 - (7) A network operator must lodge with the Director-General the reports specified in the schedule of reports referred to in subclause (2) (g), in accordance with requirements of the network management plan.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

7 Customer installation safety plans

- (1) The object of a customer installation safety plan is to ensure the provision of safe electrical installations for connection to the transmission or distribution system to which it relates and the safe connection of such installations to that system.

- (2) A customer installation safety plan must include (but is not limited to) the following:
 - (a) design, construction and maintenance standards required of customers for their electrical installations,
 - (b) testing, connection and notification criteria for contractors installing electrical installations,
 - (c) an inspection regime and procedures for directions to remedy faulty work and disconnections of unsafe installations by the network operator.
- (3) In developing and implementing a customer installation safety plan, a network operator must take into account such codes, standards or guidelines as the Director-General, by notice in writing to the network operator, requires to be taken into account in the development and implementation of the customer installation safety plan.
- (4) The plan must specify where it or its implementation departs from the provisions of any such code, standard or guideline and what arrangements are in place to ensure an equal or better safety outcome.
- (5) This clause does not apply to electrical installations that take a supply at or above 132,000 volts (nominal).

8 Public electrical safety awareness plans

- (1) The object of a public electrical safety awareness plan is to warn the public of the hazards associated with electricity in relation to a network operator's transmission or distribution system. The plan must be based on an assessment of the risks associated with the system and an analysis of any accidents or incidents.
- (2) In developing and implementing a public electrical safety awareness plan, a network operator must take into account such codes, standards or guidelines as the Director-General, by notice in writing to the network operator, requires to be taken into account in the development and implementation of the public electrical safety awareness plan.
- (3) The plan must specify where it or its implementation departs from the provisions of any such code, standard or guideline and what arrangements are in place to ensure an equal or better outcome.

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Part 2 Plans to be lodged and implemented by network operator

9 Bush fire risk management plan

- (1) The objects of a bush fire risk management plan are as follows:
 - (a) to ensure public safety,
 - (b) to establish standards that must be observed when electricity lines operate near vegetation,
 - (c) to reduce interruptions to electricity supply that are related to vegetation,
 - (d) to minimise the possibility of fire ignition by electricity lines.
- (2) A bush fire risk management plan is to include (but is not limited to) the following:
 - (a) provisions that identify bush fire prone areas and that set out a process for identifying network assets capable of initiating bush fires and a system for ensuring that that information is kept up-to-date,
 - (b) provisions that ensure that network assets located in bush fire prone areas and capable of initiating bush fires are inspected, tested and maintained in accordance with the maintenance schedule set out in analysis of hazardous events in the network management plan,
 - (c) provisions that ensure that tree clearances are maintained in accordance with such codes, standards or guidelines as the Director-General, by notice in writing to the network operator, may require,
 - (d) provision for the review of equipment types or construction methods known in their operation or design to have bush fire ignition potential and a mitigation strategy in relation to their use,
 - (e) information relating to rights and duties of the customers with private lines and the dangers of trees coming into contact with those lines,
 - (f) provisions that ensure that any private overhead electricity lines located in bush fire prone areas and capable of initiating a bush fire are inspected, tested and maintained in accordance with the maintenance schedule set out in the analysis of hazardous events in the network management plan, and that standards are enforced by the network operator,

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- (g) provision for a complaints recording system in relation to bush fire risk management and provisions that ensure that appropriate investigations and remedial actions are undertaken as required,
 - (h) provision for liaison and consultation with the NSW Rural Fire Service, New South Wales Fire Brigades, councils for relevant local government areas and any other relevant government departments,
 - (i) information for the general public about the fire hazards associated with overhead power lines and vegetation, particularly during storms and conditions of high fire hazard,
 - (j) a description of any special procedures or precautions proposed to be taken during conditions of very high fire danger, including work practices by staff, fault location procedures, automatic and manual reclosing of lines and protection settings,
 - (k) a schedule of reports to be made to the Director-General in relation to the control of the risk of bush fire resulting from the network operator's transmission or distribution system.
- (3) The schedule of reports referred to in subclause (2) (k) must include such reports as the Director-General, by notice in writing to the network operator, directs to be included in the schedule relating to the control of the risk of bush fire resulting from the network operator's transmission or distribution system.
- (4) A network operator must lodge with the Director-General the reports specified in the schedule of reports referred to in subclause (2) (k), in accordance with requirements of the bush fire risk management plan.
- Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

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Clause 10 Electricity Supply (Safety and Network Management) Regulation 2002

Part 3 Audit requirements

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10 Director-General may require plans to be audited

- (1) The Director-General may, by notice in writing to a network operator, require the network operator to cause its network management plan or bush fire risk management plan to be audited in accordance with the requirements of this Regulation and such further requirements as the Director-General may specify.
- (2) A network operator must:
 - (a) cause an audit to be carried out in accordance with a notice referred to in subclause (1), and
 - (b) lodge with the Director-General a report prepared by the auditor in relation to that audit, within a time specified in the notice referred to in subclause (1).

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units in any other case.

11 Nomination of auditor to conduct audit

- (1) An audit of a plan is to be carried out by a person who has been nominated by the network operator by notice in writing to the Director-General.
- (2) The nominated auditor is to be a person who:
 - (a) is independent of the network operator, and
 - (b) is competent to exercise the functions of an auditor under this Regulation in respect of the plan.
- (3) The nomination of an auditor by a network operator ceases to have effect for the purposes of this Regulation if the Director-General advises the network operator, by notice in writing, that the nomination is not acceptable or has ceased to be acceptable.
- (4) The Director-General may nominate an auditor to carry out an audit of a network operator's plan, and the person so nominated is taken to have been nominated by the network operator, if:
 - (a) the nomination of an auditor by the network operator ceases to have effect, or

- (b) the network operator fails to nominate an auditor to carry out the audit in accordance with any requirements specified by the Director-General by notice in writing to the network operator.

12 Requirements of audit

- (1) The report prepared by an auditor in relation to an audit of a network operator's network management plan or bush fire risk management plan is to include an audit certificate.
- (2) An *audit certificate* is a certificate that certifies the auditor's opinion as to the following matters:
 - (a) whether the plan complies with this Regulation,
 - (b) whether the plan is appropriate having regard to the size and complexity of the transmission or distribution system (subject to any exemptions given under this Regulation),
 - (c) whether the plan is being properly implemented,
 - (d) whether properly trained and equipped personnel are available to implement the procedures set out in the plan.
- (3) The audit certificate must also include a summary of the standards, procedures, tests, inspections and maintenance measures contained in the plan.

13 Additional report requirements—network management plan

The report prepared by an auditor in relation to an audit of a network management plan must also include the following:

- (a) a review of the plan for adequacy and appropriateness having regard to any changes in the network operator's transmission or distribution system since the previous audit,
- (b) an appraisal of the organisational quality management arrangements intended to ensure that the transmission or distribution system is planned, designed, constructed, operated and maintained in accordance with the plan,
- (c) an appraisal of the reliability and integrity of information reported under the plan, including an analysis of the following:
 - (i) the documented procedures for measuring, processing and reporting data, measurement systems, information systems and quality controls,
 - (ii) the extent to which relevant staff demonstrate an understanding of those documented procedures,

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Part 3 Audit requirements

- measurement systems, information systems and quality controls,
- (iii) evidence that those documented procedures, measurement systems, information systems and quality controls are being observed or properly implemented,
- (iv) the extent to which any reported data have been estimated or extrapolated rather than measured directly,
- (d) an appraisal of the involvement by senior management and the board of the network operator in approving the plan.

14 Additional audits may be required

- (1) Without limiting clause 10, the Director-General may, by notice in writing to a network operator, require the network operator to carry out, or to provide such assistance and cooperation as is reasonable for the purposes of carrying out, a further audit of a network management plan or bush fire risk management plan if:
 - (a) the Director-General is not satisfied as to any aspect of an audit carried out by an auditor nominated by the network operator, or
 - (b) the Director-General is satisfied that a further audit is required in order to verify that the relevant plan is being implemented.
- (2) The Director-General may require such a further audit to be carried out by an auditor nominated or appointed by the Director-General.
- (3) The audit may relate to any or all of the matters referred to in clause 12 or 13.
- (4) A network operator must not fail to comply with a requirement made by the Director-General under this clause.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

Part 4 Compliance with plans

15 Availability of plans

A network operator:

- (a) must cause copies of each of its plans to be kept at its principal office, and
- (b) must cause copies of each of its plans to be made available for inspection on the website (if any) of the network operator, and
- (c) must cause copies of each of its plans to be made available in such a way that, as far as practicable, the provisions are brought to the notice of the persons likely to be involved in their implementation.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

16 Network operators to measure and report on network performance

- (1) A network operator must measure its performance against each plan that it is required to lodge under this Regulation, and against any relevant standards required by the Director-General after consultation.
- (2) A network operator must:
 - (a) publish the results of its performance measurements annually, and
 - (b) cause copies of those results:
 - (i) to be kept at its principal office, and
 - (ii) to be made available for inspection on the website (if any) of the network operator, and
 - (iii) to be made available in such a way that, as far as practicable, the results are brought to the notice of customers and the public.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

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Part 4 Compliance with plans

- (3) A network operator must, before publishing the results of its performance measurements, give the Director-General notice in writing of its intention to publish those results and of the date from which it proposes to make those performance measurements available under subclause (2) (b).

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

17 Further reports to be submitted to Director-General

- (1) The Director-General may, by notice in writing to a network operator, require the network operator to lodge with the Director-General, within the time specified in the notice, a report relating to any injury, incident, system failure or other matter relating to the network operator's transmission or distribution system.
- (2) A network operator must not fail to comply with a requirement made by the Director-General under this clause.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

18 Certain work to be carried out in accordance with plans

A person must not carry out work on or near a network operator's transmission or distribution system and a network operator must not allow a person to carry out work on or near its transmission or distribution system unless:

- (a) the person is qualified, under the relevant requirements of the network operator's network management plan, to carry out the work, and
- (b) the work is carried out in accordance with the relevant requirements of that plan.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

19 Director-General may direct compliance with plans

- (1) If the Director-General is of the opinion that a network operator is not:
- (a) complying with the requirements of one of the network operator's plans or any codes, standards or guidelines set out or referred to in such a plan, or

(b) following any procedures set out or referred to in such a plan, the Director-General may, by order in writing, direct the network operator to take such action as is specified in the order to comply with those requirements, codes, standards or guidelines or follow those procedures.

- (2) A network operator must not fail to comply with any direction made by the Director-General under this clause.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

20 Director-General may direct amendment of plans

- (1) If the Director-General is of the opinion:

- (a) that a network operator's plan will not produce a satisfactory outcome in terms of providing an adequate, reliable and safe supply of electricity of appropriate quality, or
- (b) that its implementation has given rise to, or may give rise to, a situation that is unsafe or where the adequacy of the network is unsatisfactory,

the Director-General may, by order in writing, direct the network operator to amend the plan in such manner as is specified in the order, or to lodge with the Director-General an action plan in relation to the matters specified in the order.

- (2) A network operator must not fail to comply with any direction made by the Director-General under this clause.

Maximum penalty: 100 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

- (3) The Director-General must not direct that an amendment to a plan be made if the amendment would make it inconsistent with the National Electricity Code.

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Clause 21 Electricity Supply (Safety and Network Management) Regulation 2002

Part 5 Miscellaneous

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21 Exemptions

- (1) The Director-General may exempt a network operator from any requirement of this Regulation if the requirement is, in the Director-General's opinion, inappropriate having regard to the nature, size and complexity of the network operator's transmission or distribution system.
- (2) The Director-General may revoke any such exemption.

22 Savings provision

- (1) Any act, matter or thing that, immediately before the repeal of the *Electricity Supply (Safety Plans) Regulation 1997 (the repealed Regulation)*, had effect under the repealed Regulation continues to have effect under this Regulation.
- (2) In particular, a reference in any other Regulation to a safety plan under the repealed Regulation is taken to include a reference to a network management plan under this Regulation.

Schedule 1 Network management plans

(Clause 6)

1 Description of transmission or distribution system

A description of a transmission or distribution system and its planning, design, construction, operation and maintenance must include the following:

- (a) references to maps showing the location of the system's electricity works and the procedures for gaining access to those maps,
- (b) design and construction standards and procedures for the system's electricity works,
- (c) system reliability planning standards,
- (d) technical customer service standards for quality and reliability of supply,
- (e) maintenance standards and procedures for the system's electricity works,
- (f) operation and work procedures for the system (including procedures for work on or near both de-energised and live electricity works),
- (g) safety equipment design, use and maintenance standards and procedures for the system,
- (h) a description of the engineering records, drawings and maps that the network operator maintains on the system.

2 Description of planning process

A description of the planning process employed for the purpose of assessing the adequacy of the transmission or distribution system and the need for development of the transmission or distribution system must include the following:

- (a) the process used for setting system reliability planning standards and identifying development needs and demand management opportunities,
- (b) strategies for managing and complying with that process and those standards.

3 Description of asset management strategies

A description of the asset management strategies employed for the purposes of the design, construction, operation and maintenance of the transmission or distribution system must include the following:

- (a) the process used for setting design, construction, operation and maintenance standards and customer technical service standards for quality and reliability of supply,
- (b) strategies for managing and complying with that process and those standards.

4 Analysis of hazardous events

- (1) An analysis of hazardous events must, consistent with the size and complexity of the transmission or distribution system:
 - (a) systematically identify hazardous events that might be expected to occur, and
 - (b) identify the potential causes of those events, and
 - (c) state the possible consequences of those events, and
 - (d) specify operational, maintenance and organisational safeguards intended to prevent those events from occurring or, should they occur, intended to protect operating personnel, plant, equipment, the community and the environment.
- (2) The operational and maintenance safeguards must include a maintenance schedule indicating, among other things, the type and frequency of inspections and tests of the transmission or distribution system (including checks on protection devices).
- (3) In the case of new transmission or distribution systems, an analysis of hazardous events should also take into account hazardous events occurring during construction.

5 Emergencies

- (1) The types of emergencies in respect of which procedures are to be implemented include:
 - (a) fires, explosions and impacts (with particular reference to those caused by the activities of other parties), and
 - (b) natural disasters, and
 - (c) civil disturbances.

- (2) A plan must demonstrate that the network operator regularly tests and, as far as practicable, has proved the emergency procedures.