

**INSTRUMENT OF VARIATION OF CONDITIONS OF TRANSMISSION OPERATOR'S LICENCE**

**ELECTRICITY SUPPLY ACT 1995 (NSW)**

**1 Variation of conditions of transmission operator's licence**

I, Penny Sharpe, Minister for Energy, vary the Licence held by the *Licence Holder* in accordance with clause 7 of Schedule 2 of the *Electricity Supply Act 1995 (NSW) (the Act)*.

**2 Commencement**

This Instrument of variation (**Instrument**) commences on the day it is signed.

**3 Definitions**

In this Instrument:

**Licence** means the transmission operator's licence granted under section 93A of the *Electricity Supply Act 1995* to the Licence Holder to operate a transmission system that is a transacted transmission system under the *Electricity Network Assets (Authorised Transactions) Act 2015* effective on 16 December 2015.

**Licence Holder** means NSW Electricity Networks Operations Pty Limited (ACN 609 169 959) as trustee for the NSW Electricity Networks Operations Trust.

**Previous Licence Conditions** means all the conditions of the Licence existing immediately before the commencement of this Instrument .

**4 Variation of licence**

- (1) Omit the Previous Licence Conditions and substitute Schedule A.
- (2) Clause 4(1) of this Instrument does not:
  - (a) revive anything not in force or existing at the time this Instrument takes effect;
  - (b) affect the previous operation of the Previous Licence Conditions or anything done or begun under or in accordance with the Previous Licence Conditions; or
  - (c) affect a right, privilege or liability acquired, accrued or incurred under the Previous Licence Conditions.

Signed: \_\_\_\_\_

**The Hon Penny Sharpe MLC**

Minister for Energy

Date: \_\_\_\_\_

15/9/23

## SCHEDULE A

### MINISTERIALLY IMPOSED LICENCE CONDITIONS FOR THE OPERATOR OF A TRANSACTED TRANSMISSION SYSTEM

This schedule provides a list of conditions which the *Minister* has determined to impose pursuant to clause 6(1)(b) of Schedule 2 of the *Electricity Supply Act 1995* (the *Act*) on the operator of a *transacted transmission system* under the *Electricity Network Assets (Authorised Transactions) Act 2015*.

In addition to ministerially-imposed conditions, licensees are subject to obligations imposed by the *Act*, *Regulations* and associated regulatory instruments which include (without limitation) an obligation to comply with requirements imposed by or under regulations made pursuant to section 5.6 of the *Environmental Planning and Assessment Act 1979*.

#### GENERAL CONDITIONS

##### 1 National Electricity Market registration

At all times this *Licence* is in force, the *Licence Holder* must ensure that it and all other network operators of its *transmission system*:

- (a) are registered or exempt from the requirement to be registered as a Network Service Provider under the National Electricity Rules; or
- (b) hold any equivalent authorisation or right of participation in any national electricity market, granted by the person responsible for the granting of such an authorisation or right of participation under any legislation enacted for the purpose of introducing such a market.

##### 2 Technical and prudential criteria

The *Licence Holder* must, for the duration of this *Licence*, ensure that it and all other network operators of its *transmission system* satisfy the technical and prudential criteria that each entity is required to meet as a condition of its registration or exemption, or equivalent authorisation or right of participation in any national electricity market, referred to in condition 1.

##### 3 Reliability and performance standards

The *Licence Holder* must ensure that it and all other network operators of its *transmission system* comply with the *Reliability and Performance Standard – Appendix 2*.

##### 4 Business continuity and disruptions

- 4.1 The *Licence Holder* must have a documented system to ensure that it has adequate arrangements in place to identify, assess and manage business continuity risks and manage business disruptions relating to the operation of its *transmission system* (a *Business Continuity Plan*).
- 4.2 The *Licence Holder* must ensure that it and any other network operator of its *transmission system* implements and complies with the *Business Continuity Plan*.

## 5 Critical infrastructure

The *Licence Holder* must ensure that it and all other network operators of its *transmission system* comply with the *Critical Infrastructure Licence Conditions – Appendix 1*.

### CONDITIONS RELATING TO MANAGEMENT SYSTEMS

## 6 Maintenance of certified management systems

6.1 The *Licence Holder* must have and maintain:

- (a) an asset management system that is consistent with the *Australian Standard AS ISO 55001- 2014 Asset Management – Management Systems – Requirements* (as in force from time to time) or other standard approved by the *Tribunal* on request of the *Licence Holder*; and
- (b) an environmental management system that is consistent with *Australian/New Zealand Standard AS/NZS ISO 14001: 2016 Environmental Management System – Requirements with guidance for use* (as in force from time to time), or other standard approved by the *Tribunal* on request of the *Licence Holder*.

6.2 The *Licence Holder* must ensure that:

- (a) its asset management system is certified by an appropriately qualified person to be consistent with the *Australian Standard AS ISO 55001- 2014 Asset Management – Management Systems – Requirements* (as in force from time to time) or other standard approved by the *Tribunal* on request of the *Licence Holder*; and
- (b) its environmental management system is certified by an appropriately qualified person to be consistent with the *Australian/New Zealand Standard AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with guidance for use* (as in force from time to time), or other standard approved by the *Tribunal* on request of the *Licence Holder*; and
- (c) the certification of its asset management system and environmental management system in accordance with conditions 6.2(a) and 6.2(b) is maintained for the duration of the *Licence*.

## 7 Implementation of management systems

The *Licence Holder* must ensure that its asset management system and environmental management system are fully implemented, and all relevant activities undertaken by it or any other network operator of its *transmission system* are carried out in accordance with the relevant management system.

### CONDITIONS RELATING TO COMPLIANCE, REPORTING AND FEES

## 8 Reporting in accordance with Reporting Manuals

The *Licence Holder* must prepare and submit reports in accordance with any *Reporting Manuals* issued by the *Tribunal*.

## 9 Complying with Audit Guidelines issued by the Tribunal

The *Licence Holder* must comply with any *Audit Guidelines* issued by the *Tribunal*.

## 10 Compliance management systems

The *Licence Holder* must ensure internal systems are developed and maintained that are capable of effectively managing compliance with its *Licence*.

## 11 Compliance with statistical operating obligations

The *Licence Holder* must provide to the *Tribunal* such operating statistics and performance indicators as may be required from time to time by the *Tribunal*. The *Tribunal* will provide the *Licence Holder* with reasons for its request when the initial request is made and after that when a request relates to operating statistics and performance indicators that are of a materially different type or category to that provided under the initial or subsequent request.

## 12 Information about compliance with Licence Conditions

The *Licence Holder* must furnish to the *Tribunal* (at such times and in respect of such periods as the *Tribunal* may determine and in the manner and form specified by the *Tribunal*) such information as the *Tribunal* may determine, to enable the *Tribunal* to ascertain whether or not the *Licence Holder* is complying with these *Licence* conditions, the *Act* or the *Regulations*.

## 13 Compliance with audit directions

13.1 The *Tribunal* may at any time direct the *Licence Holder*, by written notice, to engage an *Approved Auditor* at the expense of the *Licence Holder* to conduct an audit of, and prepare a report on, the *Licence Holder's* compliance with conditions imposed on it by this *Licence*, the *Act* or *Regulations* (*Approved Auditor's* report).

13.2 The *Licence Holder* must comply with any direction issued by the *Tribunal* under condition 13.1.

13.3 The *Licence Holder* must provide the *Approved Auditor's* report to the *Tribunal* by the date specified in the direction issued by the *Tribunal* under condition 13.1.

## 14 Licence fees

14.1 It is a condition of this *Licence* that the *Licence Holder* pay such fees (annual or otherwise) in connection with the holding of the *Licence* as may be determined by the *Minister* from time to time.

14.2 The *Licence Holder* must pay the fees referred to in condition 14.1 in the manner and within the period specified by the *Tribunal*.

## INTERPRETATION AND DEFINITIONS

### Interpretation

In these *Licence* conditions, unless the context requires otherwise:

- (a) the singular includes the plural and vice versa;
- (b) headings are used for convenience only and do not affect the interpretation of these *Licence* conditions;
- (c) a reference to a document includes the document as modified from time to time and any document replacing it;
- (d) a reference to a person includes a natural person and any body or entity whether incorporated or not; and

(e) references to conditions are references to conditions in these *Licence* conditions.

## Definitions

Expressions used in these *Licence* conditions that are defined in the *Act* or the *Regulations* have the meanings set out in the *Act* or the *Regulations*.

In these *Licence* conditions:

Act	means the <i>Electricity Supply Act 1995</i> .
Approved Auditor	means a person chosen from a panel of auditors approved by the <i>Tribunal</i> or an auditor otherwise approved by the <i>Tribunal</i> as being of reputable standing, suitably qualified and who is independent of the <i>Licence Holder</i> .
Approved Critical Infrastructure Auditor	means an <i>Approved Auditor</i> who has been further approved by the <i>Tribunal</i> as having the necessary experience and expertise in system security or has otherwise demonstrated to the <i>Tribunal's</i> satisfaction the capability to audit compliance with the <i>Critical Infrastructure Licence Conditions</i> .
Associate	has the meaning given to that term in the <i>Corporations Act 2001</i> (Cth).
Audit Guidelines	means any document setting out audit requirements associated with the <i>Licence Holder</i> which is prepared by the <i>Tribunal</i> and is available on its website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a> as amended from time to time.
Bulk Personal Data Records	means any holdings or files of personal information (within the meaning of the <i>Privacy Act 1988</i> (Cth)) about multiple individuals which contain fields or categories.
Business Continuity Plan	has the meaning given to it in condition 4.1.
Critical Infrastructure Licence Conditions	means the conditions set out in Appendix 1 to this <i>Licence</i> .
Commonwealth Representative	means the First Assistant Secretary with responsibility for critical infrastructure security within the Commonwealth or equivalent level in a subsequent agency with responsibility for critical infrastructure security.  <i>Note: At the time of varying this Licence, the Commonwealth Representative is the First Assistant Secretary responsible for the Cyber and Infrastructure Security Centre within the Commonwealth Department of Home Affairs.</i>

First issue of these conditions	means 16 December 2015.
Licence	has the same meaning as 'Licence' in clause 3 of this Instrument
Licence Holder	has the same meaning as 'Licence Holder' in clause 3 of this Instrument.
Load Data	<p>means data as to the quantum of electricity delivered (both historical and current load demand from or to any one or more sites (or their connection points) which satisfies each of the following criteria:</p> <ol style="list-style-type: none"> <li>i. it is not historical load data older than 30 days;</li> <li>ii. it is not fault data;</li> <li>iii. it describes a location that allows a customer(s) or connection point(s) to be identified;</li> <li>iv. it describes the date and time of the data record;</li> <li>v. it describes a magnitude which comprises a voltage of at least 330 kV and power of at least one Terawatt hour; and</li> <li>vi. it describes a duration - a length of time that allows for a quantum to exist.</li> </ol>
Minister	means the Minister responsible for administering the <i>Act</i> .
Protocol	<p>means a document of the type referred to in conditions 1.1 and 1.2 of Appendix 1 of these conditions, that is required by the Commonwealth and which must be agreed to between the <i>Commonwealth Representative</i> and the <i>Licence Holder</i>, the document may set out (among other things) the:</p> <ol style="list-style-type: none"> <li>i. specified purposes for which maintenance of <i>transmission system</i> equipment may be conducted offshore and the circumstances in which it may be conducted offshore;</li> <li>ii. methodology and activities to be undertaken to allow for maintenance and repairs of <i>transmission system</i> equipment to be carried out involving remote access from offshore;</li> <li>iii. the exceptional circumstances in which the Protocol applies; and</li> <li>iv. activities and processes which achieve requisite levels of cyber-security.</li> </ol>
Regulations	means regulations made under the <i>Act</i> .

Relevant Person	means the <i>Licence Holder</i> , any other network operator of the <i>transmission system</i> and any person who is contracted or sub-contracted by the <i>Licence Holder</i> to work on the <i>transmission system</i> .
Reliability and Performance Standard	means the <i>NSW Electricity Transmission Reliability and Performance Standard 2017 No. 1</i> contained in Appendix 2 of this <i>Licence</i> , as amended or replaced from time to time.
Reporting Manuals	means any document setting out reporting requirements associated with the <i>Licence Holder</i> which is prepared by the <i>Tribunal</i> and is available on its website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a> as amended from time to time.
Transacted transmission system	means a transacted transmission system under the <i>Electricity Network Assets (Authorised Transactions) Act 2015</i> .
Transition Plan	means a plan of the type described under condition 1.2 of Appendix 1, that is required by the Commonwealth, and which describes the existing practices of the <i>Licence Holder</i> which do not comply with condition 1.2 of Appendix 1 and the planned actions and timeframes to move to compliance. Such a plan is to be agreed to in writing by the <i>Commonwealth Representative</i> .
Transmission system	means the transmission system of which the <i>Licence Holder</i> is a network operator.
Tribunal	means the Independent Pricing and Regulatory Tribunal of New South Wales established under the <i>Independent Pricing and Regulatory Tribunal Act 1992</i> .

## Appendix 1 Critical Infrastructure Licence Conditions

*For the purposes of these Critical Infrastructure Licence Conditions, it is acknowledged that the assets which the Licence Holder operates may constitute "critical infrastructure" being those physical facilities, supply chains, information technologies and communication networks which, if destroyed, degraded or rendered unavailable for an extended period, would significantly impact on the security, social or economic wellbeing of the State of New South Wales and other States and Territories which are from time to time electrically interconnected with New South Wales and other States and Territories. These Critical Infrastructure Licence Conditions will be reviewed by the Minister from time to time (and where necessary) in consultation with responsible Ministers of the Commonwealth and relevant States and Territories. According to its own legislation and policy, the Commonwealth may require a Licence Holder to agree to certain arrangements. The Licence Holder should also establish procedures for national security threat sharing with the Critical Infrastructure Centre and action received information on a good-faith basis.*

### **1 Substantial presence in Australia**

- 1.1 Except to the extent allowed for under the *Protocol* agreed with the *Commonwealth Representative*, the *Licence Holder* must take all practical and reasonable steps to ensure:
- (a) the maintenance of its *transmission system* is undertaken solely from within Australia, except where maintenance requires either physical servicing of components offshore or the acquisition of replacement components from outside Australia. In such an instance, it is the responsibility of the senior officer responsible for network operations to ensure this maintenance does not impact condition 1.2 of this Appendix 1; and
  - (b) that any third party or non-*Licence Holder* employee, including individuals/entities from outside Australia, undertaking maintenance of the *transmission system* is subject to the approval of the senior officer responsible for network operations.
- 1.2 Except to the extent that the *Licence Holder* is undertaking steps in accordance with, and for the duration of, a *Transition Plan* and/or a *Protocol* agreed with the *Commonwealth Representative*, the *Licence Holder*:
- (a) must, by using best industry practice for electricity network control systems, ensure that operation and control of its *transmission system*, including all associated ICT infrastructure, can be accessed, operated and controlled only from within Australia, and that its *transmission system* is not connected to any other infrastructure or network which could enable it to be controlled or operated by persons outside Australia;
  - (b) must notify the *Commonwealth Representative* in advance of any engagement with the market to procure a contract under which it outsources the operation and control of its *transmission system*, including any ICT infrastructure associated with the operation and control of its *transmission system*.
- Note:** *For the purposes of condition 1.2(a) of this Appendix 1;*
- Best industry practice includes access required by relevant Australian regulators and market and system operators to meet the Licence Holder's obligations under Australian law.*
- 1.3 The *Licence Holder* must:
- (a) have at least two directors who are Australian citizens; and
  - (b) have senior officers responsible for (notwithstanding their title):
    - (i) operational technology;
    - (ii) network operations; and



(iii) security operations

in relation to its *transmission system*,

who are persons residing in Australia and hold an appropriate national security clearance, being a clearance of not less than Negative Vetting Level 1 (or equivalent) issued by the NSW Government on advice from the Australian Government Security Vetting Agency (AGSVA).

**Note:** For the purposes of condition 1.3(b) of this Appendix 1:

*The senior officer responsible for operational technology is the officer whose responsibilities include:*

- *Delivering the Supervisory Control and Data Acquisition (SCADA) capability required to safely and reliably operate the NSW transmission system;*
- *Developing and implementing strategies to manage cyber security and other threats affecting the network operational technology environment; and*
- *Developing systems for effectively managing assets remotely, including but not limited to network switches, condition monitoring and remote interrogation or operation of protection systems and relays; and*

*The senior officer responsible for network operations, is the officer whose responsibilities include:*

- *The day to day operation and monitoring of the transmission system; and*
- *Directing the operational planning, management, control and security of the transmission system.*

*The senior officer responsible for security operations, is the officer whose responsibilities include:*

- *Approval for the Licence Holder's personnel or other nominated personnel to access the Licence Holder's information systems or physical access to the Licence Holder's premises and associated infrastructure;*
- *Personnel security; and*
- *Managing relationships with Commonwealth and state government agencies.*

**Note:** *The above responsibilities may be held by a single officer or shared between more than one officer. Where the responsibilities are shared between more than one officer, the relevant senior officer responsibility contemplated in condition 1.1(a) of this Appendix 1 is the joint responsibility of the multiple officers and the approval contemplated in condition 1.1(b) of this Appendix 1 must be obtained from each of those officers.*

1.4 The *Licence Holder* is not in breach of its obligations under:

- (a) condition 1.3(a) of this Appendix 1 if, in the case of a casual vacancy on the board of directors, the vacancy is filled within two months of the casual vacancy first occurring;

- (b) condition 1.3 of this Appendix 1 if following:
- (i) the *first issue of these conditions* to the *Licence Holder*; or
  - (ii) either position identified in condition 1.3 of this Appendix 1 being vacated or the *Relevant Person* ceasing to satisfy the qualifications set out there for any reason,

the *Licence Holder*:

- (iii) procures the appointment of a person to the relevant position that the *Licence Holder* bona fide believes will be able to obtain the required security clearance; and
- (iv) has procured that the person apply for the required security clearance.

1.5 The exception in condition 1.4(b) of this Appendix 1 ceases to apply to the *Licence Holder* if:

- (a) an appointment and application for national security clearance for the person is not made within 4 months of (as relevant) the *first issue of these conditions* or the relevant vacancy or disqualification occurring; or
- (b) if the application referred to in condition 1.5(a) of this Appendix 1 is made and is rejected or withdrawn, the *Licence Holder* does not procure a replacement application being made within 4 months of that rejection or withdrawal; or
- (c) the *Licence Holder* does not procure compliance with condition 1.3(b) of this Appendix 1 in any event with respect to any position within 8 months (or such longer period as approved in writing by the *Minister*) of (as relevant) the *first issue of these conditions* or the relevant vacancy occurring.

## 2 Data security

2.1 The *Licence Holder* must ensure that:

- (a) all of its information (being design specifications, operating manuals and the like) as to the operational technology (such as the SCADA system) and associated ICT infrastructure of the operational network is held solely within Australia, and that such information is accessible only by a *Relevant Person* who has been authorised by the *Licence Holder* and only from within Australia;

(b) all:

- (i) *Load Data*; and
- (ii) *Bulk Personal Data Records*,

relating to or obtained in connection with the operation of the *transmission system* by a *Relevant Person* is held solely within Australia, and is accessible only by a *Relevant Person* or a person who has been authorised by the *Licence Holder*; and

- (c) it does not export and has appropriate security controls in place to prevent the export, of *Bulk Personal Data Records* relating to or obtained in connection with the operation of the *transmission system* by a *Relevant Person*, outside of Australia.

2.2 The *Licence Holder* is not in breach of its obligations under conditions 2.1(a), 2.1(b)(i) or 2.1(c) of this Appendix 1 if the *Licence Holder* discloses, holds, uses or accesses any information or data referred to in those conditions, or the *Licence Holder* allows a *Relevant Person* approved by the senior officer referred to in condition 1.3(b)(i) of this Appendix 1 to

disclose, hold, use or access any information or data referred to in those conditions for the purposes of:

- (a) disclosure to a recognised stock exchange so that such information is made available publicly in compliance with a binding obligation on the part of the *Licence Holder* or an *Associate* to do so;
- (b) complying with any law of the Commonwealth of Australia, or of any of its States and Territories;
- (c) disclosure to the financial, accounting, insurance, legal, regulatory and other advisers, auditors, insurers, security trustees and financiers (and each of their advisers) of the *Licence Holder*, any *Associate*, and any bona fide prospective purchaser of any interest in, or of any interest in the main undertaking of, the *Licence Holder* or any *Associate*, but in each case only to the extent necessary in order for those persons to provide the advisory or other services bona fide required of them;
- (d) disclosure to participants, regulators and service providers in the electricity sector, provided it is in the ordinary course of business and in accordance with good electricity industry practice, and such information is required by those persons to provide the services or to perform the functions bona fide required of them;
- (e) providing aggregated data which does not permit identification of any particular customer or customer's connection points or their demand characteristics;
- (f) allowing a service provider or contractor to hold, use or access information where that arrangement is approved by the *Minister*, in the case of arrangements approved as of the *first issue of these conditions*, and otherwise where the *Licence Holder* has provided the *Commonwealth Representative* with a submission demonstrating that:
  - (i) the service provider or contractor is reputable; and
  - (ii) the service provider or contractor has data security systems in place to ensure information security is maintained;and has obtained the written agreement of the *Commonwealth Representative* for the arrangement; and
- (g) such other circumstances as approved by the *Tribunal* in writing. Prior to seeking approval from the *Tribunal*, the *Licence Holder* must provide the *Commonwealth Representative* with a reasonable opportunity within a period not ending less than 60 calendar days, to confirm in writing to the *Tribunal* that the Commonwealth does not intend to make any further requests or submissions in relation to the matter.

2.3 The *Licence Holder* is not in breach of its obligations under condition 2.1(b) of this Appendix 1 if a *Relevant Person* or a person authorised to access the information by the *Licence Holder* discloses, holds, uses or accesses personal information in accordance with the *Privacy Act 1988* (Cth).

### 3 Compliance

- 3.1 By 30 September each year the *Licence Holder* must furnish a report to the *Tribunal* and the *Commonwealth Representative* detailing whether the *Licence Holder* has complied with conditions 1 and 2 of this Appendix 1 over the preceding financial year to 30 June.
- 3.2 The report required under condition 3.1 of this Appendix 1 must be audited by an *Approved Critical Infrastructure Auditor* by a date specified by the *Tribunal*. The audit required by this condition 3.2 of this Appendix 1 must be a comprehensive audit and must meet any requirements specified by the *Tribunal*. The *Licence Holder* must provide the audited report to

the *Commonwealth Representative* at the same time that the report is provided to the *Tribunal*.

- 3.3 The *Tribunal* may provide guidance to the *Approved Critical Infrastructure Auditor* as to the *Licence Holder's* practices that have satisfied or will satisfy conditions 1 and 2 of this Appendix 1.
- 3.4 The report required under condition 1.1 of this Appendix 1 must be accompanied by a certification in writing supported by a resolution of the Board of the *Licence Holder* that, with respect to the relevant period:
  - (a) the *Licence Holder* has complied with conditions 1 and 2 of this Appendix 1; or
  - (b) the *Licence Holder* has not complied with conditions 1 and 2 of this Appendix 1, and certifying the nature and extent of each non-compliance and the steps taken by the *Licence Holder* to ensure compliance (and to preclude further non-compliance) and the timeframe within which it expects to achieve compliance.

## Appendix 2 Reliability and Performance Standard

### NSW Electricity Transmission Reliability and Performance Standard 2017

#### 1 Status of this standard

- (a) This standard is a reliability and performance standard issued by the *Minister* for the purposes of condition 3 of the *Licence*.
- (b) This standard may be cited as the *Transmission Reliability and Performance Standard 2017 No. 1*.

#### 2 Interpretation

- a. In this standard, where the terms below are italicised they have the corresponding meanings set out below.

**Act** means the *Electricity Supply Act 1995*.

**Customer** has the same meaning given to it in the Act.

**Distribution system** has the same meaning given to it in the Act.

**Distributor** has the same meaning given to it in the Act.

**Expected unserved energy** means the expected amount of energy that cannot be supplied, taking into account the probability and expected impact (including expected outage duration and forecast load) of the following:

- (i) failure of a single *system element*;
- (ii) double transformer failure, or failure of equivalent *system elements*; and
- (iii) double line failure, or failure of equivalent *system elements*.

**Inner Sydney** means the inner metropolitan transmission system, which is that part of the *transmission system* constituted by:

- (i) cables 41 and 42;
- (ii) the 330/132kV substations at Rookwood Road, Beaconsfield, Haymarket, Sydney North and Sydney South;
- (iii) any future associated 330kV cables and 330/132kV substations; and
- (iv) any of Ausgrid's 132k transmission network that links any of the above.

**Level of redundancy** means:

- (i) for category 1 bulk supply points, a supply interruption may occur following the outage of a single system element;
- (ii) for category 2 bulk supply points, a non-zero amount of load must be supplied following the outage of a single system element; and
- (iii) for category 3 bulk supply points, a non-zero amount of load must be supplied following the outage of a single system element. In addition, for Inner Sydney, a non-zero amount of load must be supplied following the simultaneous outage of a single 330 kV cable and any 132 kV feeder or 330/132 kV transformer.

**Licence** means the Transmission Operator's Licence under the *Electricity Supply Act 1995* granted to NSW Electricity Networks Operations Pty Limited (ACN 609 169 959) as trustee for the NSW Electricity Networks Operations Trust dated 7 December 2015, or a licence that replaces it.

**Licence Holder** has the same meaning as under the *Licence*.

**Minister** has the same meaning as under the *Licence*.

**Negotiated load connection agreement** means an agreement between the *Licence Holder* and a customer by which the customer is connected to the *transmission system* and the services to be provided by the *Licence Holder* are to be negotiated between the parties.

**RIT-T** means the *Regulatory investment test for transmission and application guidelines 2010* published by the Australian Energy Regulator, or any replacement of that document from time to time.

**Supply** has the same meaning given to it in the Act.

**System element** means:

- (i) a transmission circuit (a line or a cable);
- (ii) a transformer;
- (iii) a component of physical infrastructure other than a transmission circuit or transformer; or
- (iv) network support arrangements, backup supply capability, or other measure that provides supply capacity.

**Transmission system** has the same meaning as under the *Licence*.

**Tribunal** has the same meaning as under the *Electricity Supply Act 1995*.

- b. Headings and notes which appear in this standard are intended as an aide to usage only, and do not form part of this standard.
- c. References to clauses in this standard are references to clauses of this standard, unless this standard expressly provides otherwise.

### **3 Requirement to design for a specified level of redundancy for each bulk supply point**

Subject to clause 5(a) of this standard, the *Licence Holder* must ensure that the *transmission system* is designed such that, for each bulk supply point listed in the table in clause 8 of this standard, the *transmission system* achieves the *level of redundancy* category specified for that bulk supply point in the table in clause 8 of this standard.

### **4 Requirement to design for a level of expected unserved energy for each bulk supply point**

Subject to clause 6(a) of this standard, the *Licence Holder* must ensure that the *transmission system* is designed such that the annual *expected unserved energy* in respect of a bulk supply point listed in the table in clause 8 of this standard does not exceed the allowance for *expected unserved energy* specified for that bulk supply point in the table in clause 8 of this standard.

## 5 Flexibility in planning for the level of redundancy

- (a) The *Licence Holder* is not required to comply with clause 3 of this standard in respect of a bulk supply point listed in the table in clause 8 of this standard provided that:
- (i) the *Licence Holder* has developed and submitted to the *Tribunal* a plan regarding measures for altering the reliability of the supply capacity of the bulk supply point;
  - (ii) that plan provides a greater net-benefit, using the cost-benefit methodology defined in the *RIT-T*, than the net-benefit of complying with clause 3 of this standard; and
  - (iii) the *Tribunal* has advised the *Licence Holder* in writing that it is satisfied that the plan submitted under clause 5(a)(i) of this standard would, if implemented, be likely to provide a greater net-benefit than would be provided by the *Licence Holder* complying with clause 3 of this standard in relation to the bulk supply point.
- (b) The *Licence Holder* must implement the plan within a time specified by the *Tribunal* to the *Licence Holder*, and such implementation must be to the reasonable satisfaction of the *Tribunal*.
- (c) For the avoidance of any doubt:
- (i) the *Licence Holder* may submit, from time to time, a proposed replacement for a plan referred to in clause 5(a) of this standard; and
  - (ii) clause 5(a) of this standard applies to such a plan in the same way that it would apply to the first plan submitted under that clause in relation to a bulk supply point.
- (d) Where the *Tribunal* has expressed satisfaction in writing under clause 5(a)(iii) of this standard about a plan that relates to a bulk supply point or bulk supply points listed in the table in clause 8 of this standard, the *Licence Holder* may advise the *Tribunal* in writing that it has elected not to implement the plan. If the *Licence Holder* so advises the *Tribunal* of such an election:
- (i) the *Licence Holder* is not required to implement the plan in question, despite clause 5(b) of this standard;
  - (ii) despite clause 5(a) of this standard, the *Licence Holder* must comply with clause 3 of this standard in respect of the bulk supply point or bulk supply points to which the plan in question relates; and
  - (iii) the *Licence Holder's* election not to implement the plan may not be reversed, unless the *Tribunal* provides its written consent for the reversal.

## 6 Flexibility in planning for the level of expected unserved energy

- (a) The *Licence Holder* is not required to comply with clause 4 of this standard in respect of a bulk supply point listed in the table in clause 8 of this standard provided that:
- (i) the *Licence Holder* has developed and submitted to the *Tribunal* a plan regarding measures for altering the reliability of the supply capacity of the bulk supply point;
  - (ii) that plan provides a greater net-benefit, using the cost-benefit methodology defined in the *RIT-T*, than the net-benefit of complying with clause 4 of this standard; and
  - (iii) the *Tribunal* has advised the *Licence Holder* in writing that it is satisfied that the plan submitted under clause 6(a)(i) of this standard would, if implemented:

- A. be likely to provide a greater net-benefit than would be provided by the *Licence Holder* complying with clause 4 of this standard in relation to the bulk supply point; and
  - B. not result in a material reduction in the level of expected unserved energy at any bulk supply point.
- (b) The *Licence Holder* must implement the plan within a time specified by the *Tribunal* to the *Licence Holder*, and such implementation must be to the reasonable satisfaction of the *Tribunal*.
- (c) For the avoidance of any doubt:
- (i) the *Licence Holder* may submit, from time to time, a proposed replacement for a plan referred to in clause 6(a) of this standard; and
  - (ii) clause 6(a) of this standard applies to such a plan in the same way that it would apply to the first plan submitted under that clause in relation to a bulk supply point.
- (d) Where the *Tribunal* has expressed satisfaction in writing under clause 6(a)(iii) of this standard about a plan that relates to a bulk supply points or bulk supply points listed in the table in clause 8 of this standard, the *Licence Holder* may advise the *Tribunal* in writing that it has elected not to implement the plan. If the *Licence Holder* so advises the *Tribunal* of such an election:
- (i) the *Licence Holder* is not required to implement the plan in question, despite clause 6(b) of this standard;
  - (ii) despite clause 6(a) of this standard, the *Licence Holder* must comply with clause 4 of this standard in respect of the bulk supply point or bulk supply points which the plan in question relates; and
  - (iii) the *Licence Holder's* election not to implement the plan may not be reversed, unless the *Tribunal* provides its written consent for the reversal.

## 7 Requirement to provide information to the Tribunal

- (a) The *Licence Holder* must comply with any request notified to the *Licence Holder* by the *Tribunal* for information that the *Tribunal* reasonably considers to be necessary or convenient for the *Tribunal* in monitoring the *Licence Holder's* compliance with this standard.
- (b) The *Licence Holder* must comply with a request under clause 7(a) of this standard within a reasonable timeframe notified to the *Licence Holder* by the *Tribunal*.
- (c) If reasonably requested to do so by the *Tribunal*, the *Licence Holder* must commission an audit of its compliance with this standard (or specified aspects of this standard). Such an audit must be conducted:
- (i) by an auditor approved by the *Tribunal* in writing;
  - (ii) at the expense of the *Licence Holder*; and
  - (iii) such that a report on the audit by the auditor is provided to the *Tribunal* within a reasonable timeframe notified to the *Licence Holder* by the *Tribunal*.
- (d) Subject to clause 7(f) of this standard, at least 90 days before entering into any contract for the construction of a new *bulk supply point* (as defined in clause 7(e) of this standard) intended to form part of the *transmission system* (or within a different timeframe proposed by the *Licence Holder* and agreed to in writing by the *Tribunal*), the *Licence Holder* must submit a proposal regarding the new *bulk supply point* to the *Tribunal*. The proposal must:



- (i) propose a *level of redundancy* category that this standard should specify for the new bulk supply point;
  - (ii) propose a level of *expected unserved energy* that this standard should specify for the new bulk supply point; and
  - (iii) set out reasons in support of the *level of redundancy* category and level of *expected unserved energy* proposed.
- (e) For the purposes of clauses 7(d) and 7(f) of this standard, *bulk supply point* means one or more points of connection at a location where *supply* is provided from the *transmission system* to one or more *distribution systems* and/or one or more *customers* directly connected to the *transmission system*. For the purposes of this definition, where *supply* is provided:
- (i) at the same voltage level through multiple points of connection at a particular location, those points of connection together constitute a single new bulk supply point;
  - (ii) at different voltages through multiple points of connection at a particular location, each point of connection through which *supply* is provided at a different voltage level constitutes a separate new bulk supply point.

**Note:** *New bulk supply points are generally located at the busbar(s) at Transgrid substations where there can be multiple individual connections to a distribution system or directly connected customer. However, sometimes, new bulk supply points are where connections are made to Transgrid's transmission lines or cables at 'tee' connections or at busbars or substations owned by the distributor or directly connected customer.*

*An example of a single bulk supply point consisting of multiple points of connection through which supply is provided at the same voltage at a particular location is the points of connection of several distributor lines to the busbar(s) at a Transgrid substation.*

*An example of a separate bulk supply point existing for each point of connection through which supply is provided at a different voltage level is where supply is provided from higher voltage busbar(s) as well as lower voltage busbar(s) of a Transgrid substation.*

- (f) Clause 7(d) of this standard does not apply to the *Licence Holder* in relation to a new *bulk supply point* if:
- (i) a single customer to whom supply would be provided through the new bulk supply point is on a *negotiated load connection agreement* and is the sole party connected to the new bulk supply point; or
  - (ii) the *Licence Holder* and all the *distributors* and *customers* directly connected to the *transmission system* to whom *supply* would be provided through the new *bulk supply point* agree, in writing, that the new *bulk supply point* may, for the purposes of clause 7(d) of this standard, be taken not to be a *bulk supply point*; and
- the *Licence Holder* keeps a record providing evidence of the agreement.

**Note:** It is expected that clause 7(f) of this standard would generally only apply in situations where:

- the connection to the distributor(s) and/or directly connected customer(s) was at a 'distribution voltage' (e.g. 11kV or 22kV) to supply very small loads; and
- the level of redundancy or expected unserved energy that would be proposed by the Licence Holder under clause 7(d) of this standard, if it applied, could not be economically justified.

**Note:** Once the Licence Holder submits a proposal to the Tribunal in accordance with clause 7(d) of this standard, the Tribunal would consult on the proposal before making a recommendation to the Minister on listing the new bulk supply point in the table in clause 8 of this standard as well as the specification of the redundancy category and unserved energy allowance.

## 8 Table of values

	Redundancy category	Unserved energy allowance, maximum minutes per year at average demand
<b>1. Inner City</b>		
Beaconsfield West 132 kV	3	0.6 <sup>a</sup>
Haymarket 132 kV	3	
Rookwood Road 132 kV	3	
Sydney North 132 kV	3	
Sydney South 132 kV	3	
<b>2. Other bulk supply points</b>		
Albury 132 kV	2	14
ANM 132 kV	2	6
Armidale 66 kV	2	7
Beryl 66kV	2	5
Bomabee South 132 kV	2	18
Canberra 132 kV and Williamsdale 132 kV	2	3
Coffs Harbour 66 kV	2	10
Coleambally 132 kV	2	32
Cooma 66 kV	2	28
Cooma 132 kV	2	11

---

Cowra 66 kV	2	25
Dapto 132 kV	2	4
Darlington Point 132 kV	2	4
Deniliquin 66 kV	2	19
Finley 66 kV	2	12
Forbes 66 kV	2	19
Gadara (132 kV & 11 kV)	2	13
Glen Innes 66 kV	2	43
Griffith 33 kV	2	12
Gunnedah 66 kV	2	19
Holroyd 132 kV	2	24
Ingelburn 66 kV	2	5
Inverell 66 kV	2	40
Kempsey 33 kV	2	24
Koolkhan 66 kV	2	19
Liddell 330 kV	2	2
Lismore 132 kV	2	4
Liverpool 132 kV	2	5
Macarthur 132 kV and 66 kV	2	3
Macksville 132 kV	2	23
Manildra 132 kV	2	6
Moree 66 kV	2	5
Mount Piper 66 kV	2	19
Munmorah 132 kV	2	20
Murrumburrah 132 kV	2	19
Muswellbrook 132 kV	2	3
Nambucca 66 kV	2	65
Narrabri 66 kV	2	5
Newcastle 132 kV	2	2
Orange North 132 kV / Orange 132 kV and 66 kV	2	7
	2	5
Panorama 66 kV		
	2	9
Parkes 132 kV		

---

---

Parkes 66 kV	2	51
Port Macquarie 33 kV	2	14
Queanbeyan 66 kV	2	4
Raleigh 132 kV	2	32
Regentville 132 kV	2	13
Stroud 132 kV	2	21
Sydney East 132 kV	2	2
Sydney West 132 kV	2	1
Tamworth 66 kV	2	4
Taree 66 kV and 33 kV	2	15
Tenterfield 22 kV	2	79
Tomago 132 Note 3	2	13
Tomago 330 kV	2	14
Tuggerah 132 kV	2	13
Tumut 66 kV	2	13
Vales Pt 132 kV	2	3
Vineyard 132 kV	2	1
Wagga 66 kV	2	33
Wagga North 132 kV	2	5
Wallerawang 132 kV	2	26
Wallerawang 66 kV	2	31
Waratah West 132 kV	2	3
Wellington 132 kV	2	6
Yanco 33 kV	2	41
Balranald 22 kV	1	115
Broken Hill 22 kV and Broken Hill 220 kV	1	10
Casina 132 kV	1	7
Dorrigo 132 kV	1	41
Hawks Nest 132 kV	1	42
Hérons Creek	1	17
Ilford 132 kV	1	14
Marulan 132 kV	1	10

---

Molong 66 kV	1	46
Morven 132 kV	1	33
Mudgee 132 kV	1	14
Munyang 33 kV	1	14
Murrumbateman 132 kV	1	49
Snowy Adit 132 kV	1	52
Wagga North 66 kV	1	42
Wellington Town	1	21
Yass 66 kV	1	22

a. Applies across all the *Inner Sydney*

