

## PROPOSED RELIABILITY AND PERFORMANCE CONDITIONS

Set out below are the *Tribunal's* proposed distribution reliability standards for Ausgrid, Essential Energy and Endeavour Energy to apply from 1 July 2024.

These standards are designed to replace the existing standards that are contained in conditions 4 to 7 of the *Licence Holder's* current licences.

Italicised terms are defined in the Definitions part of the relevant licence. For convenience, there is a table of definitions used in these proposed conditions, set out further below, identifying which definitions are proposed to be inserted, deleted or amended.

The Schedules that apply to these proposed licence conditions are also set out further below.

### 4 Individual feeder performance

- 4.1 The *individual feeder standards* that apply to each of the *Licence Holder's feeders* for each 12-month period referred to in clause 4.4, other than *CBD Sydney feeders* and *Long feeders*, are:

$$SAIDI = 262 + 108 \sqrt{Length} + \text{MIN} \left( 160, \frac{5500}{Length} \right)$$

$$SAIFI = 3.1 + 0.44 \sqrt{Length} + \text{MIN} \left( 0.65, \frac{21}{Length} \right)$$

where:

**Length** is the total route length of the *feeder*, in kilometres; and

**MIN** is the lower of the values within the brackets.

- 4.2 The *individual feeder standards* that apply to each of the *Licence Holder's Long feeders* for each 12-month period referred to in clause 4.4, are:

*SAIDI* = 2688 minutes

*SAIFI* = 13.0 interruptions.

- 4.3 The *individual feeder standards* that apply to each of the *Licence Holder's CBD Sydney feeders* for each 12-month period referred to in clause 4.4, are:

*SAIDI* = 100 minutes

*SAIFI* = 1.4 interruptions.

- 4.4 At the end of each *quarter*, the *Licence Holder* must determine whether it has exceeded the *individual feeder standards* applicable to each of its *feeders* for the 12-month period ending at the end of that *quarter*.

**Note:** If the *individual feeder standards* in this condition have been exceeded, certain obligations under condition 5A will apply.

## 5 Direct connection standards

5.1 This condition 5 applies to each *connection point*:

- (a) that is directly supplied at a nominal voltage above 1 kV and generally at or below 22 kV; and
- (b) to which condition 4 does not apply.

5.2 The *direct connection standards* that apply to the *Licence Holder* in respect of each *connection point* are:

Minutes interrupted = 530

Number of interruptions = 4.2

where:

**minutes interrupted** means the total number of minutes of all *interruptions* to a *customer* over the relevant 12-month period; and

**number of interruptions** means the total number of times there is an *interruption* to a *customer* over the relevant 12-month period.

5.3 At the end of each *quarter*, the *Licence Holder* must determine whether it has exceeded the *direct connection standards* for each *connection point* to which this condition 5 applies in the 12-month period ending at the end of that *quarter*.

**Note:** If the *direct connection standards* in this condition have been exceeded, certain obligations under condition 5A will apply.

### 5A Investigation and rectification of non-conformance with standards

5A.1 (a) Where the *Licence Holder* has exceeded any of the *individual feeder standards* or *direct connection standards* in the 12-month period immediately preceding the end of a *quarter*, the *Licence Holder* must prepare:

(i) an *investigation report* by the end of the *quarter* immediately following the *quarter* the relevant standard was exceeded; and

(ii) a *rectification plan* within 3 months of the completion of the *investigation report*.

(b) Where the cause or causes for exceeding the standard have already been rectified before an *investigation report* is required to be prepared under condition 5A.1(a) above, the *Licence Holder* is not required to prepare a *rectification plan* in respect of that breach of the relevant standard.

5A.2 An *investigation report* must:

- (a) identify the cause or causes for exceeding the relevant *individual feeder standard(s)* or *direct connection standard(s)*;
- (b) where the cause or causes identified in paragraph (a) have already been rectified, identify the steps taken to rectify the causes, including when the steps were completed;

- (c) where the cause or causes identified in paragraph (a) have not yet been rectified or fully rectified, identify any reasonable solutions that can be implemented to rectify the causes to improve conformance with the relevant *individual feeder standards* or *direct connection standards*, including:
  - (i) whether the solutions:
    - (A) involve expenditure on a distribution asset (network options); or
    - (B) do not involve expenditure on a distribution asset (non-network options); and
  - (ii) the steps required to implement each solution; and
- (d) in the case of an *investigation report* prepared because the *Licence Holder* has exceeded a *direct connection standard* - consider the terms of the *connection contract* (including network security arrangements) agreed with the *customer* of the affected *connection point*, including when the *customer* was connected to the *Licence Holder's Distribution system*.

5A.3 A *rectification plan* must:

- (a) set out:
  - (i) the solution(s) selected (unless clause 5A.3(b)(ii) applies such that there is no solution selected) to rectify the cause or causes for exceeding the relevant *individual feeder standard(s)* or *direct connection standard(s)*; and
  - (ii) the timeframes for completing the steps required to implement the solution(s);
- (b) apply the following principles:
  - (i) the solution(s) selected must be subject to a cost-benefit analysis and must demonstrate a positive net benefit;
  - (ii) the *Licence Holder* may decide not to select a solution only if there is no solution that demonstrates a positive net benefit following cost-benefit analysis;
  - (iii) all reasonable steps to improve conformance with the *individual feeder standards* or *direct connection standards* should be taken;
  - (iv) the timeframe for rectification should be as short as reasonably practicable;
  - (v) implementation of the rectification plan must commence no later than 6 months from the date the *investigation report* is completed; and
  - (vi) solutions identified in condition 5A.2(c) involving a non-network option are preferred where they are equal or more cost-effective than a network option.

5A.4 If the *Licence Holder* has prepared a *rectification plan* which identifies a selected solution in accordance with clause 5A.3, the *Licence Holder* must implement that *rectification plan*.

5A.5 The *Licence Holder* is not required to implement the *rectification plan* in accordance with condition 5A.4 if, following a cost-benefit analysis in accordance with condition 5A.3:

- (a) there are no solutions which demonstrate a positive net benefit; or
- (b) the *Licence Holder*:
  - (i) demonstrates to the satisfaction of the *Tribunal* that it is reasonable not to implement the *rectification plan*; and
  - (ii) has received written confirmation from the *Tribunal* that the *Tribunal* is satisfied that it is reasonable not to implement the *rectification plan*.

5A.6 Where condition 5A.3(b)(ii) applies, the *Licence Holder* must, within one month of that determination, advise the *Tribunal* of the *Licence Holder's* non-conformance with the relevant *individual feeder standards* or *direct connection standards*.

## 6 Guaranteed service levels and payments

### 6.1 In this condition 6:

**CPI** means the consumer price index All Groups index number for the weighted average of eight capital cities, published by the Australian Bureau of Statistics; or, if the Australian Bureau of Statistics does not or ceases to publish the index, then CPI will mean an index determined by the *Tribunal*.

**Deemed Standard Connection Contract** has the same meaning as in the *National Energy Retail Law (NSW)*.

**Note:** Each *Licence Holder* is required to have a Deemed Standard Connection Contract governing the supply of *customer* connection services. The contract is based on model terms, and is formed between a *Licence Holder* and *customer* connecting to the *Licence Holder's Distribution system* where the *customer* does not enter into a negotiated contract.

**DUOS** means distribution use of system service as defined in the National Electricity Rules.

**Eligible Customer** means a *customer* who is supplied by the *Licence Holder* under the *Licence Holder's Deemed Standard Connection Contract*.

**GSL 1** means, in respect of a *Licence Holder*, the level 1 guaranteed service level in row 1 of the *Licence Holder's* table in condition 6.2.

**GSL 1 Payment** means:

- (a) for the period 1 July 2024 to 30 June 2025, \$120; and
- (b) for any subsequent *financial year*, \$120 multiplied by the Inflation Multiplier for that *financial year*.

**GSL 2** means, in respect of a *Licence Holder*, the level 2 guaranteed service level in row 2 of the *Licence Holder's* table in condition 6.2.

**GSL 2 Payment** means the annual DUOS fixed charge of the *Licence Holder's* Tariff for the *financial year* to which the *GSL payment* relates. This charge is often called the 'network access charge'.

**Inflation Multiplier** means, for a *financial year*, CPI for the March *quarter* of the preceding *financial year* divided by CPI for the March *quarter* of 2024.

**Tariff** means EA010 (for Ausgrid), N70 (for Endeavour Energy) and BLNN2AU (for Essential Energy) as contained in the *Licence Holder's* Tariff Structure Statement or such other tariff taken to be the Tariff in accordance with conditions 6.8 and 6.9.

**Tariff Structure Statement** has the same meaning as in the National Electricity Rules.

6.2 The *guaranteed service levels* that apply to the *Licence Holder* are:

**For Essential Energy:**

|              |  |
|--------------|--|
| <b>GSL 1</b> | 36 hours of <i>interruptions</i> or 20 <i>interruptions</i>  |
| <b>GSL 2</b> | 120 hours of <i>interruptions</i> or 50 <i>interruptions</i> |

**For Endeavour Energy:**

|              |   |
|--------------|---|
| <b>GSL 1</b> | 20 hours of <i>interruptions</i> or 10 <i>interruptions</i> |
| <b>GSL 2</b> | 48 hours of <i>interruptions</i> or 20 <i>interruptions</i> |

**For Ausgrid:**

|              |   |
|--------------|---|
| <b>GSL 1</b> | 20 hours of <i>interruptions</i> or 10 <i>interruptions</i> |
| <b>GSL 2</b> | 48 hours of <i>interruptions</i> or 20 <i>interruptions</i> |

- 6.3 Subject to conditions 6.5 and 6.6, if the *Licence Holder* exceeds GSL 1 at the Eligible Customer's premises in a *financial year*, it must pay the Eligible Customer the relevant GSL 1 Payment in accordance with this condition 6.
- 6.4 Subject to conditions 6.5 and 6.6, if the *Licence Holder* exceeds GSL 2 in a *financial year*, it must pay the Eligible Customer the relevant GSL 2 Payment in accordance with this condition 6.
- 6.5 An Eligible Customer is only entitled to one GSL 1 Payment and one GSL 2 Payment in a *financial year*.
- 6.6 The *Licence Holder* must take reasonable steps to:
- (a) make a *GSL payment* to an Eligible Customer if the Eligible Customer makes an application for a *GSL payment* within 12 weeks of the end of the *financial year* in which the relevant *GSL* was exceeded; and
  - (b) within 12 weeks of the date of the application, pay an Eligible Customer who makes an application all *GSL payments* that the Eligible Customer is entitled to, despite any deficiency in the form or content of the application made by the Eligible Customer.

**Note:** Nothing in this condition 6 prevents a *Licence Holder* from voluntarily making a *GSL payment* to an Eligible Customer where the Eligible Customer has not made a valid application, including where an application is deficient or made out of time.

### Where the Tariff no longer applies

6.7 If the Tariff no longer applies, the *Licence Holder* must:

- (a) notify the *Tribunal* within 10 business days of the AER approving a Tariff Structure Statement that no longer includes the Tariff; and
- (b) at the same time as it provides the notice under condition 6.7(a), nominate an equivalent tariff to the Tariff.

6.8 The tariff nominated under condition 6.7 is taken to be the Tariff unless the *Tribunal* advises the *Licence Holder* within 20 business days that a different tariff is to apply, in which case, that tariff is taken to be the Tariff.

### Communication of GSL payments

6.9 The *Licence Holder* must:

- (a) before the commencement of a *financial year*, publish in an easily accessible location on its website a dollar value estimate of each annual *GSL payment* for that *financial year*;
- (b) take reasonable steps to notify a *customer* that the *Licence Holder* reasonably considers, based on data available to it, is likely to be eligible for a *GSL payment*, of the *customer's* potential entitlement to a *GSL payment* or *payments*, and the process for making an application for a *GSL payment*; and
- (c) on request from a *customer*, provide written information on the availability of *GSL payments* and how to make an application.

6.10 From time to time, the *Tribunal* may require the *Licence Holder* to take additional steps to notify Eligible Customers in relation to *GSL payments*.

6.11 The *Licence Holder* must:

- (a) notify an applicant for a *GSL payment* of the outcome of the application in writing within 12 weeks of receiving the application;
- (b) specify in the notification:
  - (i) if a *GSL payment* is being made, the form and timing of that payment; and
  - (ii) if a *GSL payment* is not being made, the reasons for the decision.

### Limitation of GSL payment

6.12 A *GSL payment* does not:

- (a) alter or diminish any rights that an Eligible Customer may have against any person under trade practices or other applicable legislation, common law or contract;
- (b) represent any admission of legal liability by the *Licence Holder*; and

- (c) alter, vary or exclude the operation of:
  - (i) section 119 of the *National Electricity Law (NSW)*;
  - (ii) sections 316 and 316A of the *National Energy Retail Law (NSW)*; and
  - (iii) any other statutory limitations on liability or immunities applicable to a *Licence Holder*.

## 7 Performance monitoring, reporting and information disclosure

### Individual feeder standards report

7.1 For each *reporting period* for *individual feeder standards*, the *Licence Holder* must prepare and submit a report to the *Tribunal*. This report must:

- (a) be submitted by the date specified in the *Reporting Manual*, or if no date is specified, within one month of the end of the *reporting period*;
- (b) for each *feeder*:
  - (i) identify whether the *feeder* is a *CBD Sydney feeder*, an *urban feeder*, *short rural feeder*, or *long rural feeder*;
  - (ii) state the *individual feeder standards* for the *feeder*, as calculated in accordance with condition 4, for the *reporting period*; and
  - (iii) state the actual *SAIDI* and *SAIFI* performance of the *feeder* for the *reporting period*; and
- (c) for each *feeder* for which an *individual feeder standard* was exceeded in the *reporting period*:
  - (i) identify whether the *feeder* is a *CBD Sydney feeder*, an *urban feeder*, *short rural feeder* or *long rural feeder*;
  - (ii) state the *individual feeder standards* for the *feeder*, as calculated in accordance with condition 4;
  - (iii) specify which *individual feeder standard* was exceeded (that is, *SAIDI*, *SAIFI* or both) and in which *quarter*;
  - (iv) state the actual *SAIDI* and *SAIFI* performance of the *feeder* for each *quarter* in which an *individual feeder standard* was exceeded;
  - (v) state whether an *investigation report* has been prepared for the purpose of condition 5A.1 and, if not, provide the reason;
  - (vi) specify, where the *Licence Holder* has taken, or intends to take, rectification action to improve the performance of the *feeder*:
    - (A) the rectification action;
    - (B) the date of completion (or, in the case of rectification action the *Licence Holder* intends to take, the planned date of completion); and
    - (C) whether the rectification action is or involves a non-network option; and

- (vii) where the *Licence Holder* has, following a cost-benefit analysis in accordance with condition 5A.3, determined not to undertake any further work to improve conformance with the *individual feeder standards*, provide an explanation; and(d) include any other matter notified by the Tribunal in writing.

### **Direct connection standards report**

7.2 For each *reporting period* for *direct connection standards*, the *Licence Holder* must prepare and submit a report to the *Tribunal*. This report must:

- (a) be submitted by the date specified in the *Reporting Manual*, or if no date is specified, within one month of the end of the *reporting period*;
- (b) for each *connection point* for which a *direct connection standard* was exceeded in the *reporting period*:
  - (i) identify which *direct connection standard* was exceeded (that is, minutes interrupted, number of *interruptions*, or both) and in which *quarter*;
  - (ii) state:
    - (A) the total number of minutes from any *interruption* during each *quarter* in which the *direct connection standard* was exceeded;
    - (B) the total number of *interruptions* during each *quarter* in which the *direct connection standard* was exceeded;
  - (iii) state whether an *investigation report* has been prepared for the purpose of condition 5A.1 and, if not, provide the reason;
  - (iv) specify, where the *Licence Holder* has taken, or intends to take, rectification action to improve conformance with the *direct connection standards*:
    - (A) the rectification action;
    - (B) the date of completion (or, in the case of intended rectification action, the planned date of completion); and
    - (C) whether the rectification action is or involves a non-network option; and
  - (v) where the *Licence Holder* has, following a cost-benefit analysis in accordance with condition 5A.3, determined not to undertake any further work to improve conformance with the *direct connection standards*, provide an explanation; and
- (c) include any other matter notified by the *Tribunal* in writing.

### **Guaranteed service levels**

7.3 A *Licence Holder* must prepare and submit, within one month of the end of the relevant *reporting period*, a report to the *Tribunal* which sets out the following matters in relation to *guaranteed service levels* for the *reporting period*:

- (a) the *Licence Holder's* best estimate of the number of *customers* where the *Licence Holder* has exceeded the relevant *guaranteed service level* by reference to the type of *customer* and *guaranteed service level*;
- (b) the number of applications of *GSL payments* received by the *Licence Holder* by reference to type of *customer* and *guaranteed service level*;



- (c) the number of *GSL payments* made by the *Licence Holder* by reference to type of *customer* and *guaranteed service level*; and
- (d) any other matter notified by the *Tribunal* in writing.

7.4 By 1 March each year, the *Licence Holder* must prepare and publish on its website information about *guaranteed service levels* for the preceding *financial year* in accordance with any requirements in the *Reporting Manual*.

#### **Planned interruptions**

7.5 By 31 August each year, the *Licence Holder* must prepare and publish on its website a report on *planned interruptions* for the preceding *financial year* in accordance with any requirements in the *Reporting Manual*.

#### **Major event days**

7.6 Where a *major event day* has occurred, the *Licence Holder* must publish daily updates advising affected *customers* of the estimated time for the restoration of supply in accordance with any requirements in the *Reporting Manual*.

#### **Distributed energy resources**

7.7 The *Licence Holder* must collect and publish information on its website in relation to distributed energy resources in accordance with any requirements in the *Reporting Manual*.

#### **Customer compensation schemes**

7.8 By 31 August each year, the *Licence Holder* must publish information on its website about the compensation schemes it offered customers in the preceding *financial year* in accordance with any requirements contained in the *Reporting Manual*.

#### **Incident reporting**

7.9 The *Licence Holder* must prepare and submit a report on any incident in accordance with any requirements contained in the *Reporting Manual*.

#### **Independent audit report**

7.10 The *Licence Holder* must arrange, in accordance with conditions 7.11 to 7.16, for an independent audit to be conducted of the *Licence Holder's* performance against:

- (a) the *individual feeder standards*;
- (b) the *direct connection standards*;
- (c) the *guaranteed service levels*;
- (d) the obligations to collect and publish information in condition 7.7;
- (e) the obligation to publish information in condition 7.8;
- (f) the obligation to prepare and submit incident reports in condition 7.9,

for the 2024-25 *financial year* and any other subsequent *financial year* as required by the *Tribunal* from time to time.

- 7.11 The audit must be conducted in accordance with the *Audit Guidelines*.
- 7.12 A *Licence Holder* must nominate a person to conduct the independent audit by written notice to the *Tribunal* in accordance with auditor nomination procedures published in the *Audit Guidelines*.
- 7.13 The person nominated to conduct the independent audit is to be a person who is:
- (a) independent of the *Licence Holder*; and
  - (b) competent to exercise the functions of an auditor in respect of the matters to be audited.
- 7.14 The nomination of an auditor by the *Licence Holder* ceases to have effect if the *Tribunal* advises the *Licence Holder* by notice in writing, that the nomination is not acceptable or has ceased to be acceptable.
- 7.15 The *Tribunal* may nominate an auditor to carry out an audit and the person is taken to have been nominated by the *Licence Holder* if:
- (a) the nomination of an auditor by the *Licence Holder* ceases to have effect; or
  - (b) the *Licence Holder* fails to nominate an auditor to carry out the audit in accordance with any requirements specified by the *Tribunal* by notice in writing to the *Licence Holder*.
- 7.16 A *Licence Holder* must provide a copy of the auditor's report to the *Tribunal* by 30 September each year or such other date as approved in writing by the *Tribunal*.
- 7.17 A *Licence Holder* must provide the independent audit report for the 2023-24 *financial year* required by conditions 7.6 to 7.12 of the *former licence* to the *Tribunal* by 30 September 2024.

#### **General matters concerning reports**

- 7.18 The *Tribunal* may from time to time prescribe requirements to be followed by the *Licence Holder* in respect of reports required by this condition in the *Reporting Manual* and the *Licence Holder* must comply with any such requirements.
- 7.19 The *Tribunal* may from time to time require, by notice in writing to the *Licence Holder*, further reports relating to these *Licence* conditions including reports relating to capital expenditure, network refurbishment and maintenance programs.
- 7.20 A *Licence Holder* must provide a report submitted to the *Tribunal* under this condition to the *Minister* if requested to do so by the *Minister* by notice in writing.

## Definitions

**Drafting note:** The relevant definitions from the *Licence* have been replicated below for ease of reference. Please note the following:

- Definitions marked with \* are new definitions
- Definitions marked with \*\* are amended definitions
- Definitions with ~~strike through~~ are to be deleted.

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| <b>Act</b>                                   | means the <i>Electricity Supply Act 1995</i> .  |
| <del><b>Approved Auditor</b></del>           | <del>means an auditor who has been approved by the <i>Tribunal</i> in accordance with the <i>Audit Guidelines</i>.</del>  |
| <b>Audit Guidelines</b>                      | means any document setting out audit requirements for <i>Licence Holders</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.   |
| <b>CBD Sydney feeder</b>                     | means a <i>feeder</i> forming part of the triplex 11 kV cable system supplying predominantly commercial high-rise buildings, within the City of Sydney.   |
| <b>Connection point</b>                      | means, in relation to the premises of a <i>customer</i> or a class of <i>customers</i> , the point of connection to an electrical installation supplying electricity to the premises as determined in accordance with the Service and Installation Rules of New South Wales, as in force from time to time, published by the Department of Planning and Environment |
| <b>Customer**</b>                            | has the same meaning as in the <i>National Energy Retail Law (NSW)</i> .  |
| <b>Customer Base*</b>                        | means, in respect of a <i>feeder</i> for a period:<br>(a) the number of <i>customers</i> supplied by the <i>feeder</i> as at the start of the period; plus<br>(b) the number of <i>customers</i> supplied by the <i>feeder</i> as at the end of the period,<br><br>divided by two.  |
| <del><b>Customer service standards</b></del> | <del>means the customer service standards in Schedule 5 to these conditions.</del>  |

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| <b>Direct connection standards*</b>  | means the standards specified in condition 5.2.  |
| <b>Distribution system</b>           | means the distribution system of which the <i>Licence Holder</i> is a network operator.  |
| <b>Excluded interruptions**</b>      | means the interruptions listed in Schedule 2.  |
| <b>Feeder</b>                        | means a high-voltage line operating at over 1 kV and generally at or below 22 kV that connects between a zone substation and a distribution substation.  |
| <b>Financial year</b>                | means the period commencing on 1 July and ending on 30 June the following year.  |
| <b>Former licence*</b>               | means: <ul style="list-style-type: none"> <li>(a) for Ausgrid, the distributor's licence granted under the <i>Act</i> to the Ausgrid Operator Partnership dated 28 November 2016, and varied by instruments dated 4 December 2017 and 5 February 2019.</li> <li>(b) for Essential Energy the distributor's licence granted under the <i>Act</i> to Essential Energy (ABN 37 428 185 226) dated 5 February 2019.</li> <li>(c) for Endeavour Energy the distributor's licence granted under the <i>Act</i> to the Endeavour Energy Network Operator Partnership dated 7 June 2017 and varied by instrument dated 5 February 2019.</li> </ul> |
| <b>Guaranteed service levels*</b>    | means the guaranteed service levels contained in condition 6.2.  |
| <b>GSL payment*</b>                  | means a payment made to a <i>customer</i> in accordance with condition 6.  |
| <b>Individual customer standards</b> | <del>means the individual customer services standards in Schedule 8 to these conditions.</del>   |

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| <b>Individual feeder standards**</b>    | means the standards contained in condition 4.   |
| <b>Interruption**</b>                   | <p>means any loss of electricity supply to a <i>customer</i> of more than 0.5 seconds associated with an outage of any part of the electricity supply network including generation facilities, transmission networks and outages affecting a single premises, which:</p> <ul style="list-style-type: none"> <li>(a) commences when recorded by equipment such as SCADA, or where such equipment does not exist, at the time of the first <i>customer</i> communication relating to the outage; and</li> <li>(b) ends when supply is generally available to the <i>customer</i>,</li> </ul> <p>but does not include:</p> <ul style="list-style-type: none"> <li>(c) <i>excluded interruptions</i>; and</li> <li>(d) subsequent <i>interruptions</i> caused by network switching during fault finding.</li> </ul> |
| <b>Interruption duration standards</b>  | <del>means the interruption duration standards set out in Schedule 5 to these conditions</del>  |
| <b>Interruption frequency standards</b> | <del>means the interruption frequency standards set out in Schedule 5 to these conditions</del>   |
| <b>Investigation report*</b>            | means a report prepared in accordance with condition 5A.2 that sets out the causes for, and potential solutions to, the <i>Licence Holder's</i> non-conformance with <i>individual feeder standards</i> and/or <i>direct connection standards</i> .   |
| <b>Licence</b>                          | means the distributor's licence authorising the <i>Licence Holder</i> to operate its <i>Distribution system</i> .   |
| <b>Licence Holder</b>                   | means a person who is the holder of a <i>Licence</i> .  |
| <b>Local government area</b>            | <del>has the meaning given in the <i>Local Government Act 1993</i></del>  |
| <b>Long feeder*</b>                     | means a <i>feeder</i> with a total <i>feeder</i> length that is equal to or greater than 500 km.  |
| <b>Long rural feeder</b>                | means a <i>rural feeder</i> with a total <i>feeder</i> length greater than 200 km.  |

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| <b>Major event day**</b>                     | has the meaning given in Schedule 3.  |
| <b>Metropolitan</b>                          | <del>means the areas comprising the local government areas and suburbs listed in Schedule 4, but only to the extent that the Licence Holder may operate a distribution system in the relevant areas in accordance with condition 1.</del>   |
| <b>Minister</b>                              | means the Minister responsible for administering the Act.   |
| <b>Minutes interrupted</b>                   | <del>means the total number of minutes from any interruption to a customer over the relevant 12 month period.</del>   |
| <b>Network overall reliability standards</b> | <del>means the requirements imposed under condition 7 of these conditions.</del>  |
| <b>Non-Metropolitan</b>                      | <del>means areas in NSW other than areas defined as metropolitan.</del>   |
| <b>Number of interruptions</b>               | <del>means the total number of times there is an interruption to a customer over the relevant 12 month period.</del>  |
| <b>Planned interruption**</b>                | means an <i>interruption</i> for: <ul style="list-style-type: none"> <li>(a) the planned maintenance, repair or augmentation of the transmission system;</li> <li>(b) the planned maintenance, repair or augmentation of the <i>Distribution system</i>, including planned or routine maintenance of metering equipment; or</li> <li>(c) the installation of a new connection or a connection alteration in accordance with the National Energy Retail Rules and National Electricity Rules.</li> </ul> |
| <b>Quarter</b>                               | means a period of three months commencing 1 January, 1 April, 1 July and 1 October and concluding on the following 31 March, 30 June, 30 September and 31 December dates respectively, as the case may be.  |
| <b>Regulations</b>                           | means regulations made under the Act.   |
| <b>Rectification plan*</b>                   | means a plan prepared in accordance with condition 5A.3 for rectifying a <i>Licence Holder's</i> non-conformance with <i>individual feeder standards</i> and/or <i>direct connection standards</i> .  |

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| <b>Reporting Manual**</b>                 | means any document setting out reporting or information disclosure requirements for the <i>Licence Holder</i> which is prepared by the <i>Tribunal</i> from time to time and is available on its website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a>   |
| <b>Reporting period*</b>                  | means the period of time to be captured in a report required to be submitted to the <i>Tribunal</i> as specified in the <i>Reporting Manual</i> .  |
| <b>Rural feeder*</b>                      | means a <i>feeder</i> that is not an <i>urban feeder</i> or a <i>CBD Sydney feeder</i> .   |
| <b>SAIDI</b>                              | means (for a <i>Licence Holder's feeder</i> for a given 12-month period) the System Average Interruption Duration Index for the <i>feeder</i> , calculated by dividing the sum of the durations (in minutes) of all <i>interruptions</i> on that <i>feeder</i> during that period by the <i>Customer Base</i> for that <i>feeder</i> during that period. |
| <b><del>SAIDI average standards</del></b> | <del>means the standards set out in Item 1, Schedule 2.</del>  |
| <b>SAIFI</b>                              | means (for a <i>Licence Holder's feeder</i> for a given 12-month period) the System Average Interruption Frequency Index for the <i>feeder</i> , calculated by dividing the total number of all <i>interruptions</i> on that <i>feeder</i> during that period by the <i>Customer Base</i> for that <i>feeder</i> during that period.                     |
| <b><del>SAIFI average standards</del></b> | <del>means the standards set out in item 2, Schedule 2.</del>  |
| <b>Short rural feeder</b>                 | means a <i>rural feeder</i> with a total <i>feeder</i> route length less than 200km.   |
| <b><del>Suburb</del></b>                  | <del>means an area defined by boundaries determined and gazetted by the Geographical Names Board of New South Wales.</del>   |
| <b>Tribunal</b>                           | means the Independent Pricing and Regulatory Tribunal of New South Wales established under the <i>Independent Pricing and Regulatory Tribunal Act 1992</i> .   |
| <b>Urban feeder</b>                       | means a <i>feeder</i> that has a 3-year average maximum demand over the 3-year average <i>feeder</i> route length greater than 0.3 MVA/km and which is not a <i>CBD Sydney feeder</i> .  |





## SCHEDULE 2: EXCLUDED INTERRUPTIONS

- (a) In this Schedule 2:

**Load shedding** means reducing or disconnecting load from the power system;

**System operator** has the same meaning as in the *National Electricity Law (NSW)*.

- (b) The following types of *interruptions* are *excluded interruptions*:

- (i) an *interruption* of a duration of three minutes or less;
- (ii) an *interruption* resulting from:
  - (A) load shedding due to a generation shortfall;
  - (B) automatic load shedding due to the operation of under-frequency relays following the occurrence of a power system under-frequency condition described in the Power System Security and Reliability Standards made under the National Electricity Rules;
  - (C) load shedding at the direction of the Australian Energy Market Operator or system operator;
  - (D) a failure of the shared transmission network;
  - (E) the exercise of an obligation, right or discretion imposed, or provided for, under the *Act* or *Regulations* or national electricity legislation;
- (iii) an *interruption* caused by a failure of transmission connection assets unless the interruption was due to:
  - (A) action or inaction of the *Licence Holder* that is inconsistent with good industry practice; or
  - (B) inadequate planning of transmission connections and the *Licence Holder* is responsible for transmission connection planning;
- (iv) an *interruption* caused, or extended, by a direction from NSW or Federal emergency services, provided that a fault in, or the operation of, the *Distribution system* did not cause, in whole or in part, the event giving rise to the direction;
- (v) a *planned interruption*; and
- (vi) an *interruption* which commences on a *major event day*.

### SCHEDULE 3: MAJOR EVENT DAYS

The following methodology for identifying *major event days* is based on IEEE Std. 1366-2012, *IEEE Guide for Electric Power Distribution Reliability Indices*, by the Institute of Electrical and Electronics Engineers (IEEE).

#### Explanation and Purpose

The following process ("**Beta Method**") is used to identify *major event days* which are to be excluded from the *individual feeder standards* for the purposes of condition 4 of the Licence and *direct connection standards* for the purposes of condition 5 of the Licence. The method is to be used provided that the natural log transformation of the data results closely resembles a Gaussian (normal) distribution. Where this is not the case, the *Licence Holder* may seek the *Tribunal's* approval to apply a different threshold value.

A *major event day* under the Beta Method is one in which the daily total system SAIDI value ("**daily SAIDI value**") exceeds a threshold value, *TMED*. The *SAIDI* is used as the basis of determining whether a day is a *major event day* since it leads to consistent results regardless of utility size and because *SAIDI* is a good indicator of operational and design stress.

In calculating the daily total system *SAIDI*, any *interruption* that spans multiple days is deemed to accrue on the day on which the *interruption* begins. That is, all minutes without supply resulting from an *interruption* beginning on a *major event day* are deemed to have occurred in the *major event day*, including those minutes without supply occurring on following days.

For the purpose of calculating *TMED* and the daily *SAIDI* values, an *interruption* referred to in clause (b)(vi) of Schedule 2 is not an *excluded interruption*.

#### Determining a major event day

The *major event day* identification threshold value *TMED* is calculated at the end of each *financial year* for each *Licence Holder* for use during the next *financial year* as follows:

- (a) Collect daily *SAIDI* values for the last five *financial years* ending on the last day of the last complete *reporting period*. If fewer than five years of historical data are available, use all available historical data for the lesser period.
- (b) Only those days that have a daily *SAIDI* value will be used to calculate the *TMED* (do not include days that did not have any *interruptions*).
- (c) Calculate the natural logarithm (ln) of each daily *SAIDI* value in the data set.
- (d) Find  $\alpha$  (Alpha), the average of the logarithms (also known as the log-average) of the data set.
- (e) Find  $\beta$  (Beta), the standard deviation of the logarithms (also known as the log-standard deviation) of the data set.
- (f) Complete the *major event day* threshold *TMED* using the following equation:

$$TMED = e^{(\alpha + 2.5\beta)}$$

- (g) Any day with daily *SAIDI* value greater than the threshold value *TMED* which occurs during the subsequent *financial year* is classified as a *major event day*.

**Treatment of a major event day**

To avoid doubt, a *major event day*, and all *interruptions* beginning on that day, are excluded from the calculation of a *Licence Holder's SAIDI* and *SAIFI*.