Draft

Electricity distribution network service providers

Service target performance incentive scheme

Version 2

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AUSTRALIAN ENERGY REGULATOR

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Contents [table contents to be updated]

1 Nature and authority

1.1 Introduction

This document sets out the Australian Energy Regulator's (AER) *service target performance incentive scheme* for *distribution network service providers* (DNSPs).

1.2 Authority

Clause 6.6.2 of the *National Electricity Rules (NER)* requires the AER to develop and publish, in accordance with the *distribution consultation procedures*, this *service target performance incentive scheme*.

1.3 NER requirements

(a) Clauses 6.3.2, 6.8.1(b), 6.8.2(c)(2), 6.8.2(d) and 6.12.1 of the *NER* are relevant clauses for this *scheme*.

(b) In general, these clauses provide:

(1) The *framework and approach paper* should set out the AER's likely approach (together with its reasons for the likely approach), in the forthcoming distribution determination, to how this *scheme* is likely to be specifically applied in making a DNSP's distribution determination.

(2) A DNSP's *regulatory proposal* must contain at least:

(i) as part of the *building block proposal*, a description, including relevant explanatory material, of how the DNSP proposes the *service target performance incentive scheme* should apply for the relevant regulatory control period, in accordance with clause S6.1.3(4) of the NER

(ii) such information as required under any relevant *regulatory information instrument* issued by the AER.

(c) [deleted] ~~Clause 11.16.5 of the *NER* sets out transitional matters particular to Energex and Ergon Energy which the AER will take into account and consider in applying this *scheme* in making their 2010–15 distribution determinations.~~

Comment [A1]: Clause no longer relevant

1.4 Role of this scheme

(a) The role of this *scheme* is to provide incentives for DNSPs to maintain and improve service performance as set out in clause 6.6.2(a) of the *NER*.

(b) To that end, this *scheme*:

(1) defines the performance incentive *scheme parameters* that measure a DNSP's service performance

(2) sets out the requirements with which the values to be attributed to the *parameters* must comply

(3) will be used by the AER to decide the service standards financial reward or penalty component of a distribution determination

(4) provides guidance about the approach the AER will take in reviewing a DNSP's service performance and explains how this will affect a DNSP's allowed revenue.

1.5 AER objectives

The AER objectives for this *scheme* are that the *scheme*:

(a) is consistent with the national electricity objective in section 7 of *National Electricity Law (NEL)*

(b) is consistent with clause 6.6.2(b)(3) of the *NER* which requires that in developing and implementing a *service target performance incentive scheme*, the AER must take into account:

(1) the need to ensure that benefits to consumers likely to result from the *scheme* are sufficient to warrant any reward or penalty under the *scheme* for DNSPs

(2) any *regulatory obligation or requirement* to which the DNSP is subject

(3) the past performance of the distribution network

(4) any other incentives available to the DNSP under the Rules or a relevant distribution determination

(5) the need to ensure that the incentives are sufficient to offset any financial incentives the service provider may have to reduce costs at the expense of service levels

(6) the willingness of the customer or end user to pay for improved performance in the delivery of services

(7) the possible effects of the *scheme* on incentives for the implementation of non-network alternatives

(c) promotes transparency in:

(1) the information provided by a DNSP under this *scheme* to the AER

(2) the decisions made by the AER.

1.6 Confidentiality

The AER's obligations regarding confidentiality and the disclosure of information provided to it by a DNSP are governed by the ~~*Trade Practices*~~*Competition and Consumer* ~~*Act*~~ *Act 2010*~~*1974*~~ (Cth), the

Comment [A2]: Clause updated to insert the current version of legislations and guidelines.

NEL and the NER. For further information see the ~~ACCC/~~AER's ~~I~~*Confidentiality guideline 2013*~~*nformation Policy*~~, which is available on the AER's website.

1.7 Definitions and interpretations

(a) In this *scheme*, unless otherwise indicated:

(1) the words and phrases presented in italics have the meaning given to them in:

(i) the glossary, or

(ii) if not defined in the glossary, the glossary of the *NER* or section 2 of the *NEL*

(2) a reference to:

(i) a 'clause' is a reference to a clause in this *scheme*

(ii) an 'appendix' is a reference to an appendix in this *scheme*.

(b) Explanations in this *scheme* about why certain information is required are provided for guidance only.

1.8 Processes for revision

(a) The AER may amend or replace this *scheme* from time to time in accordance with clause 6.6.2(c) of the *NER* and the *distribution consultation procedures*.

(b) **[Deleted]**

(c) A DNSP or other person proposing an amendment to this *scheme* must submit the proposed amendment in writing to the AER.

(d) **[Deleted]**

(e) A proposal to amend this *scheme* must demonstrate how the proposed amendment is consistent with the objectives in clause 1.5 of this scheme.

(f) A proposal by a DNSP to add or vary a *parameter* must:

(1) provide information and quantitative data on its performance history covering at least the most recent three to five *regulatory years*, as measured by its proposed *parameter*, or

(2) where this performance history information is not available, provide an appropriate benchmark or methodology to set *performance targets*, and *incentive rates* for the proposed *parameter*.

1.9 Version history and effective date

A version number and an effective date of issue will identify every version of this *scheme*.

2 The service target performance incentive scheme

2.1 General application of the scheme

(a) Consistent with clause 6.2.6 of the *NER*, this *scheme* applies to the control mechanism for *standard control services*.

(b) The *parameters* and the maximum revenue increment or decrement that a DNSP can receive and the payments to customers that a DNSP must make for a given level of performance are prescribed in this *scheme*.

(c) The obligation of a DNSP to comply with this *scheme* is additional to and does not derogate from any obligation imposed upon or provided for under *jurisdictional electricity legislation* or *national electricity legislation* applying to a DNSP.

(d) The AER will, in the distribution determination to which this *scheme* applies, determine the following in accordance with the *NER* generally, and with this *scheme*:

(1) each applicable component and *parameter* to apply to a DNSP including the method of network segmentation for the reliability of supply component

(2) the *revenue at risk* to apply to each applicable component and *parameter*

(3) the *incentive rate* to apply to each applicable *parameter* including the value of customer reliability (VCR) to be applied in accordance with clause 3.2.2(d) and appendix B

(4) the *performance target* to apply to each applicable *parameter* in each *regulatory year* of the *regulatory control period*

(5) any decision with respect to the transitional arrangements set out in clause 2.6

(6) the threshold to apply to each applicable GSL *parameter*

(7) the payment amount to apply to the applicable GSL *parameter*

(8) the *major event day* boundary to apply to a DNSP:

(i) where the DNSP has proposed a *major event day* boundary that is greater than 2.5 standard deviations from the mean; or

(ii) where the *major event day* boundary that applied to the DNSP in previous distribution determinations was greater than 2.5 standard deviations from the mean; or

(iii) where the DNSP has proposed a *major event day* boundary that is greater than 2.5 standard deviations from the mean and where in previous distribution determinations the *major event day* boundary that has applied to the DNSP was greater than 2.5 standard deviations from the mean.

2.2 Proposals to vary the application of the scheme

(a) Where the *scheme* indicates that a DNSP can make a proposal to vary the application of this *scheme*, that proposal should be made in the *regulatory proposal* in accordance with and subject to clause 6.8.2 of the NER.

(b) A proposal made by a DNSP must be in writing and:

(1) include the reasons for and an explanation of the proposed variation

(2) demonstrate how the proposed variation is consistent with the objectives in clause 1.5

(3) if appropriate, include the calculations and/or methodology which differ to that provided for under this *scheme*.

(c) The AER will publish its reasons for deciding to accept or reject a proposal by a DNSP in the distribution determination.

2.3 Structure of the scheme

(a) This *scheme* comprises four components:

(1) the 'reliability of supply' component

(2) the 'quality of supply' component

(3) the 'customer service' component

(4) the 'guaranteed service level' (GSL) component.

(b) Each of the four components comprise:

(1) *parameters* that may apply

(2) the requirements with which the values to be attributed to the *parameters* must comply

(3) where applicable, the maximum revenue increment or decrement that a DNSP may receive or the payment to customers that a DNSP must make.

(c) Under the reliability of supply, quality of supply and customer service components of this *scheme*, a DNSP's revenue is increased (or decreased) based on changes in service performance, as assessed by the AER in accordance with this *scheme*.

(d) Under the GSL component, payments are made directly to customers where the service performance received by those customers is worse than a specified threshold.

(e) One or more components of this *scheme* may apply to a DNSP.

2.4 Timing of performance measurement

(a) A DNSP must measure its performance in accordance with this *scheme*:

(1) from the first day to the last day inclusive of each *regulatory year* of the *regulatory control period* to which this *scheme* applies, or

(2) as otherwise determined by the AER.

(3) **[Deleted]**

(b) Where a DNSP's *regulatory control period* ceases before a full multiple of *regulatory years* has transpired from the start of the *regulatory control period*, the DNSP must measure its performance in the final *regulatory year* until the end of the *regulatory control period* as determined by the AER.

(c) Where clause 2.4(a)(2) applies, the measured performance may be adjusted to represent annualised performance.

2.5 Revenue at risk

(a) Subject to clause 2.5(b), and excluding the GSL component described in clauses 6.1–6.4, the maximum revenue increment or decrement (the *revenue at risk*) for the *scheme* components in aggregate for each *regulatory year* within the *regulatory control period* shall be 5%, that is, the sum of the *s-factors* associated with all *parameters* must lie between +5% (the upper limit) and –5% (the lower limit).

(b) A DNSP may propose in accordance with clause 2.2 a different *revenue at risk* to apply where this would satisfy the objectives of the *scheme* described in clause 1.5.

(c) The *s-factor* will be calculated and approved annually by the AER in accordance with appendix C.

(d) The application of a revenue increment or decrement or a portion of the revenue increment or decrement may be delayed for a period of one *regulatory year*, in accordance with appendix C, for the purposes of reducing price variations to customers.

(e) A DNSP proposing a delay in accordance with clause 2.5(d) must provide in writing its reasons and justification for believing that the delay will result in reduced price variations to customers.

(f) This *scheme* does not operate retrospectively. An adjustment to a DNSP's allowed revenue can only be made as a result of its performance in a period

where *parameters* and values have been established under the *scheme* for the DNSP in advance of that period.

2.6 Transitional arrangements

(a) The AER recognises that transitional issues may arise from one *regulatory control period* to the next *regulatory control period* if the *scheme's parameters* or other attributes are altered.

(b) The AER will give consideration to an arrangement proposed under this *scheme* that reduces the impact of any transitional issues.

(c) Subject to any transitional arrangements set out in the *NEL* and the *NER*, the AER may consider and decide whether the *scheme* or a component of the *scheme* should be altered to address a transitional issue.

(d) The AER shall decide on the appropriateness of the arrangement to address a transitional issue on the basis of:

(1) materiality of the issue

(2) reasonableness and fairness to the DNSP and customers

(3) consistency with the objectives as set out in clause 1.5.

(e) The AER shall set out in writing its reasons for deciding on the appropriateness of the proposed transitional arrangements.

2.7 Suspension of the scheme

(a) At any time during a *regulatory control period* in which a *scheme* applies to a DNSP, the AER may decide whether the *scheme* or a component of the *scheme* should be suspended for a *regulatory control period* or a portion of a *regulatory control period*.

(b) A DNSP proposing that the *scheme* or a component of the *scheme* be suspended must provide in writing its reasons for proposing the suspension.

(c) The AER will publish its reasons for deciding to suspend or to not suspend the *scheme*.

(d) Before making a decision to suspend a *scheme*, the AER will consult with the relevant DNSP and such other persons as it considers may be affected by and/or have an interest in such a decision.

3 Reliability of supply component

3.1 Performance incentive scheme parameters

(a) Appendix A defines the following reliability of supply *parameters*:

(1) *Unplanned SAIDI*

(2) *Unplanned SAIFI*

(3) *MAIFIe* or *MAIFI*.

Note: *MAIFIe* is the preferred momentary interruption measurement parameter. However, if a DNSP is unable to measure momentary interruptions under the *MAIFIe* method, *MAIFI* measurement method will apply.

(b) Each of these *parameters* will apply during a *regulatory control period* except where the AER determines otherwise in its distribution determination for a DNSP.

(c) The electricity distribution network area shall be divided into segments by *network type*.

(d) The network area may be segmented by a method other than *network type* if the alternative method better meets the objectives set out in clause 1.5.

(e) *Performance targets* and *incentive rates* will be applied to each *parameter* segment.

(f) Where the DNSP demonstrates to the AER it is unable to measure *MAIFIe* or *MAIFI*, a DNSP may propose a variation to exclude *MAIFI* *or MAIFIe* in accordance with clause 2.2, for a *regulatory control period* or a portion of a *regulatory control period*.

3.2 Values for parameters

3.2.1 Performance targets

(a) The *performance targets* to apply during the *regulatory control period* must not deteriorate across *regulatory years* and must be based on average performance over the past five *regulatory years*, modified by the following:

(1) an adjustment to ensure that average performance over the past five regulatory years reflects events excluded under clause 3.3 and appendix D of this *scheme*.

(1A) any reliability improvements completed or planned where the planned reliability improvements are:

(i) included in the expenditure program proposed by the DNSP in its *regulatory proposal*, or

(ii) proposed by the DNSP, and the cost of the improvements is allowed

by the relevant regulator, in the DNSP's previous *regulatory proposal* or regulatory submission, and

(iii) expected to result in a material improvement in supply reliability.

(1B) an adjustment to correct for the *revenue at risk*, that is the sum of the *s-factors* for all *parameters*, to the extent it does not lie between the upper limit and the lower limit in accordance with clause 2.5(a). The adjustments must be calculated in accordance with the method specified in Appendix F.

(2) any other factors that are expected to materially affect network reliability performance.

(b) Where a DNSP proposes a *performance target* modified in accordance with clause 3.2.1(a), the DNSP must provide in writing an explanation of how the modified *performance target* has been calculated.

(c) Where five *regulatory years* of data is not available the AER may approve a *performance target* based on an alternative methodology or benchmark where the AER is satisfied that the *performance target* meets the objectives set out in clause 1.5.

3.2.2 Incentive rates

(a) Unless the AER decides otherwise in a relevant distribution determination, the *incentive rates* must be based on the value that customers place on supply reliability, referred to as the 'value of customer reliability' (VCR).

(b) ~~Where~~ Unless otherwise determined, if the electricity distribution network is divided into segments by *network type*, the VCR to be used to determine *incentive rates* is:

(1) for the CBD segment, $95 700/MWh adjusted for *Consumer Price Index (CPI)* from the September quarter 2008 to the start of the relevant *regulatory control period*, and

(2) for all other parameter segments, $47 850/MWh adjusted for *CPI* from the September quarter 2008 to the start of the relevant *regulatory control period*.

(3) However, the AER may determine alternative VCR values in a distribution determination (to those set out in sub-clause (1) and (2)) if the AER considers it appropriate to do so.

Comment [A3]: As these VCR values may not be accurate, and a more reliable set of VCRs is yet to be determined, a new note is added to explain that the AER will apply the most relevant VCR value available at the time.

(c) Where the electricity distribution network is divided into segments by a method other than *network type* in accordance with clause 3.1(d), the VCR to be used to determine *incentive rates* for *parameter* segments will be based on the VCR to be used under clause 3.2.2(b).

(d) An alternative VCR may apply to a *parameter* segment. Where a DNSP makes a proposal for an alternative VCR to apply, the proposal must be made in accordance with clause 2.2.

(e) The portion of the VCR assigned to the *unplanned SAIDI* and *unplanned SAIFI*

parameters is determined by applying an appropriate weighting to each *parameter*.

(f) Where the electricity distribution network is divided into segments *by network type*, the weighting of each *parameter* segment between *unplanned SAIDI* and *unplanned SAIFI* will be:

(1) as set out in Table 1, or

(2) a value determined from an applicable assessment of the value that customers attribute to the level of service measured by each *parameter* proposed by the DNSP in accordance with clause 2.2.

Table 1: Weightings for unplanned SAIDI and unplanned SAIFI

Parameter segment	Ratio of unplanned SAIDI to unplanned SAIFI
CBD	1.5 ~~1.13~~
Urban	1.5 ~~0.97~~
Rural (short and long)	1.5 ~~0.92~~

(g) Where the electricity distribution network is divided into segments by a method other than *network type* in accordance with clause 3.1(d), the weighting will be a value determined from an applicable assessment of the value that customers attribute to the level of service measured by each *parameter* proposed by the DNSP in accordance with clause 2.2.

(h) The *incentive rate* for *unplanned SAIDI* is calculated by:

(1) multiplying the portion of VCR assigned to *unplanned SAIDI* (in $/MWh) by the average annual energy consumption by *network type* (in MWh) expected for the *regulatory control period*

(2) dividing by the average of the smoothed *annual revenue requirement* for the *regulatory control period* (in $, real referenced to the first *regulatory year* of the *regulatory control period*) as determined by the AER in the relevant distribution determination, and

(3) dividing by the average number of minutes in a *regulatory year*.

(i) The *incentive rate* for *unplanned SAIFI* is calculated by:

(1) multiplying the portion of VCR assigned to *unplanned SAIFI* (in $/MWh) by the average annual energy consumption by *network type* (in MWh) expected for the *regulatory control period*

(2) dividing by the average of the smoothed *annual revenue requirement* for the *regulatory control period* (in $, real referenced to the first *regulatory year* of the *regulatory control period*) as determined by the AER in the relevant distribution determination

(3) dividing by the average number of minutes in the relevant *regulatory year*, and

(4) multiplying by the average of the annual *performance targets* for *unplanned SAIDI* in the *regulatory control period* and divide by the average of the annual *performance targets* for *unplanned SAIFI* in the

regulatory control period.

(j) The *incentive rate* for *MAIFIe* or *MAIFI* must be:

(1) 8% of the *incentive rate* for *unplanned SAIFI*, or

(2) a value determined from an applicable assessment of the value that customers attribute to a reduction in *MAIFI* proposed by the DNSP in accordance with clause 2.2.

(k) *Incentive rates* are calculated at the commencement of the *regulatory control period* and apply for the duration of the *regulatory control period*.

3.3 Exclusions

(a) The following events may be excluded when calculating the revenue increment or decrement under the *scheme* when an *interruption* on the DNSP's distribution network has not already occurred or is concurrently occurring at the same time:

(1) **[Deleted]**

(2) *load shedding* due to a generation shortfall

(3) automatic *load shedding* due to the operation of under frequency relays following the occurrence of a power system under-frequency condition

(4) *load shedding* at the direction of the Australian Energy Market Operator (AEMO) or a *system operator*

(5) load *interruptions* caused by a failure of the shared transmission network

(6) load *interruptions* caused by a failure of transmission connection assets except where the *interruptions* were due to:
(a) actions, or inactions, of the DNSP that are inconsistent with good industry practice; or
(b) inadequate planning of transmission connections and the DNSP is responsible for transmission connection planning

Example: a DNSP omits to suppress back-up earth fault (BUEF) protection when undertaking network switching operation that results in momentary paralleling of supplies from two different terminal stations, where this is inconsistent with the standard practice.

(7) load *interruptions* caused by the exercise of any obligation, right or discretion imposed upon or provided for under *jurisdictional electricity legislation* or *national electricity legislation* applying to a DNSP.

(8) load interruptions caused or extended by a direction from state or federal emergency services, provided that a fault in, or the operation of, the network did not cause, in whole or part, the event giving rise to the direction.

(b) An event may also be excluded where daily *unplanned SAIDI* for the DNSP's distribution network exceeds the *major event day* boundary, as set out in appendix D, when the event has not been excluded under clause 3.3(a).

4 Quality of supply component

4.1 Performance incentive scheme parameters

No quality of supply *parameters* are currently specified for inclusion in the *scheme*.

5 Customer service component

5.1 Performance incentive scheme parameters

(a) Appendix A defines the following customer service *parameters*:

(1) telephone answering

(2) streetlight repair

(3) new connections

(4) response to written enquiries.

(b) The 'telephone answering' *parameter* referred to in clause 5.1(a)(1) will apply during a *regulatory control period* except where the AER determines otherwise in its distribution determination for a DNSP.

(c) The 'streetlight repair' and/or 'new connections' and/or 'response to written enquiries' *parameters* referred to in clauses 5.1(a)(2)–5.1(a)(4) may be proposed by a DNSP, in accordance with clause 2.2, to apply during the relevant *regulatory control period*.

(d) The AER may require a DNSP to apply any or all of the *parameters* referred to in clauses 5.1(a)(2)–5.1(a)(4) during the relevant *regulatory control period* where the AER considers it would satisfy the objectives of the *scheme* described in clause 1.5.

(e) The AER will only require a DNSP to include a *parameter* referred to in clauses 5.1(a)(2)–5.1(a)(4) during the relevant *regulatory control period* where the AER has classified the customer service being measured by the *parameter* as a *standard control service* in the relevant distribution determination.

(f) *Performance targets* and *incentive rates* will be applied to each *parameter*.

5.2 Revenue at risk

(a) Subject to clause 5.2(c), the maximum revenue increment or decrement (the *revenue at risk*) for all customer service *parameters* in aggregate for each *regulatory year* of the *regulatory control period* shall be 1%, that is, the sum of the *s-factors* associated with all customer service *parameters* must lie between +1% (the upper limit) and –1% (the lower limit).

(b) Subject to clause 5.2(c), the maximum revenue increment or decrement (the *revenue at risk*) for an individual customer service *parameter* for each *regulatory year* of the *regulatory control period* shall be 0.5%, that is, the *s-factor* associated with an individual customer service *parameter* must lie between +0.5% (the upper limit) and –0.5% (the lower limit).

(c) A DNSP may propose in accordance with clause 2.2 a different *revenue at risk* from that referred to in clauses 5.2(a) and/or 5.2(b) to apply where this would satisfy the objectives of the *scheme* described in clause 1.5.

5.3 Value of parameters

5.3.1 Performance targets

(a) The *performance targets* must be based on average performance over the past five *regulatory years*.

(b) The *performance targets* are to be modified by the following, where applicable:

(1) an adjustment to ensure that average performance over the past five regulatory years reflects events excluded under clause 5.4 and appendix D of this *scheme*.

(1A) any customer service improvements completed or planned where the planned customer service improvements are:

(i) included in the expenditure program proposed by the DNSP in its *regulatory proposal*, or

(ii) proposed by the DNSP, and the cost of the improvements is allowed by the regulator, in the DNSP's previous *regulatory proposal* or regulatory submission, and

(iii) where the customer service improvements are expected to result in a material improvement in customer service.

(1B) an adjustment to correct for the *revenue at risk*, that is the sum of the *s-factors* for all *parameters*, to the extent it does not lie between the upper limit and the lower limit in accordance with clause 2.5(a).

(1C) an adjustment to correct for the *revenue at risk*, that is the sum of the *s-factors* for all customer service *parameters*, to the extent it does not lie between the upper limit and the lower limit in accordance with clause 5.2(a).

(1D) an adjustment to correct for the *revenue at risk*, that is the *s-factor* associated with an individual customer service *parameter*, to the extent it does not lie between the upper limit and the lower limit in accordance with clause 5.2(b).

(2) any other factors that are expected to materially affect the service being measured by the *parameter*.

(c) Where a DNSP makes a proposal to vary a *performance target* in accordance with clause 5.3.1(b), the proposal must be made in accordance with clause 2.2.

(d) Where five *regulatory years* of data is not available the AER may approve a *performance target* based on an alternative methodology or benchmark where

the AER is satisfied that the *performance target* meets the objectives set out in clause 1.5.

5.3.2 Incentive rates

(a) Unless the AER decides otherwise, the incentive rate for the 'telephone answering' *parameter* must be either:

(1) –0.040% per unit of the 'telephone answering' *parameter*, or

(2) a value determined from an applicable assessment of the value that customers attribute to the level of service proposed.

(b) Where practicable, the *incentive rates* for the *parameters* referred to in clauses 5.1(a)(2)–5.1(a)(4) should be based on the value that customers attribute to the level of service proposed.

(c) Where the requirements in clause 5.3.2(a) cannot be complied with, the DNSP must propose an appropriate alternative methodology for setting an *incentive rate* that is consistent with the objectives set out in clause 1.5.

(d) Where a DNSP makes a proposal for the purposes of clause 5.3.2(c), the proposal must be made in accordance with clause 2.2.

(e) *Incentive rates* are calculated at the commencement of the *regulatory control period* and these rates apply for the duration of the *regulatory control period*.

5.4 Exclusions

(a) Where the impact of an event is to be excluded from the calculation of a revenue increment or decrement under the 'reliability of supply' component as provided for in clause 3.3, the impact of that event may be excluded from the calculation of a revenue increment or decrement for the 'telephone answering' *parameter* as appropriate.

(b) For other customer service *parameters*, the DNSP may make a proposal for exclusions if appropriate, as long as the proposal is consistent with the objectives set out in clause 1.5.

(c) Where a DNSP makes a proposal for the purposes of clause 5.4(b), the proposal must be made in accordance with clause 2.2.

6 Guaranteed service level component

6.1 Application

(a) Where *jurisdictional electricity legislation* imposes an obligation on a DNSP to operate a guaranteed service level scheme, clauses 6.2–6.4 do not apply to the DNSP.

(b) Should *jurisdictional electricity legislation* be altered within the current *regulatory control period* to no longer impose an obligation on a DNSP to operate a guaranteed service level scheme, the AER may decide to apply clauses 6.2–6.4 to the DNSP.

6.2 Performance incentive scheme parameters

(a) Appendix A defines the following *parameters*:

(1) frequency of *interruptions*, and

(2) streetlight repair, and

(3) new connections, and

(4) notice of planned *interruptions*., and

(5) duration of *interruptions* or total duration of *interruptions*.

(6) **[Deleted]**

(b) Each of these *parameters* will apply during a *regulatory control period* except where the AER determines otherwise in a relevant distribution determination.

(c) A *parameter* should not apply during a *regulatory control period* where:

(1) the DNSP cannot measure service performance, or

(2) insufficient historical data is available to determine the DNSP's current service performance, or

(3) the cost of applying the *parameter* during the *regulatory control period* is likely to be greater than the cost customers are willing to pay for the inclusion of the measure, or

(4) the AER has classified the service being measured by the *parameter* as a *standard control service* in the relevant distribution determination.

(d) Customers may be segmented into groups by geographic area or by feeder type or by some other method. Different thresholds and GSL payment amounts may apply for each customer group.

6.3 Value of parameters

6.3.1 Thresholds

(a) The thresholds for the *parameter*s are shown in Table 2.

Table 2: GSL parameter thresholds

Parameter	Threshold
Frequency of interruptions	CBD and Urban feeders – 9 interruptions Rural (short and long) feeders – 15 interruptions
Duration of interruptions	CBD and urban feeders – 12 hours Rural (short and long) feeders – 18 hours
Total duration of interruptions	Level 1 – 20 hours Level 2 – 30 hours Level 3 – 60 hours
Streetlight repair	5 days
New connections	Connection on or before the day agreed
Notice of planned interruptions	4 days, excluding Saturday, Sunday and any Public Holiday applicable to the customer's location

(b) A DNSP may propose or the AER may require a different threshold for a *parameter* where:

(1) the forecast cost of GSL payments is likely to be greater than the cost customers are prepared to pay, or

(2) the application of the threshold in Table 2 would require the DNSP to undertake expenditure in excess of the expected benefit to customers, or

(3) the services currently provided by the DNSP are significantly better than the threshold level for the *parameter*.

(c) Where a DNSP makes a proposal for the purposes of clause 6.3.1(b), the proposal must be made in accordance with clause 2.2.

6.3.2 Payment

(a) A GSL payment must be made to a customer when the service performance to that customer exceeds the GSL *parameter* threshold.

(b) Any payments required to be made by the DNSP to a customer under clause 6.3.2(a) must be paid by the DNSP as soon as practicable after the obligation arises.

(c) A DNSP is required to monitor service levels to promptly detect when actual service performance has exceeded the GSL *parameter* threshold.

(d) A DNSP may apply to the AER for an exclusion from clause 6.3.2(a) where the DNSP does not have the systems required to detect when a service exceeds the threshold.

(e) Where a DNSP has applied for an exclusion from clause 6.3.2(a), the AER may grant the DNSP an exemption from the requirement to make payments in accordance with clause 6.3.2(a) for a period of up to one *regulatory year*.

(f) During the period of an exemption granted by the AER, the DNSP must make GSL payments when it becomes aware that the service provided has exceeded the GSL *parameter* threshold. This includes when a customer shows reasonable evidence that a GSL *parameter* threshold has been exceeded.

(g) A DNSP must make GSL payments by:

(1) applying a credit to the customer's account, or

(2) posting or delivering a cheque to the customer, or

(3) electronic transfer of the payment to the customer's bank account, or

(4) a method agreed with the customer.

6.3.3 Payment amount

(a) GSL payments are not intended to compensate customers for loss suffered as a result of poor service. GSL payments are intended to be an acknowledgement of poor service.

(b) Payment amounts are shown in Table 3.

Table 3: GSL payment amounts

Parameter	**Payment Amount** **A$ (including GST if applicable)**
Frequency of interruptions	$80
Duration of interruptions	$80
Total duration of interruptions	Level 1 – $100 Level 2 – $150 Level 3 – $300
Streetlight repair	$25
New connections	$50 per day to a maximum of $300
Notice of planned interruptions	$50

DNSPs must make GSL payments to customers for each of the GSL parameters independently. For example, if a rural customer experienced two unplanned interruptions in a particular year—the first interruption with 1 hour duration followed by a second interruption of 21 hours in duration—this customer is entitled to the following GSL payments:

- $80 for the second interruption because the duration of this interruption exceeded the 18 hours threshold for rural customers
- $100 for the total duration of interruptions (22 hours in total).

(c) A DNSP may propose or the AER may require alternative payment amounts where:

(1) the forecast number of payments is small and the DNSP or AER considers that a larger payment would provide a better incentive to meet the GSL targets, or

(2) the forecast number of payments is large and the DNSP or AER considers that a smaller payment would constrain the total forecast cost of GSL payments to a level that customers are prepared to pay.

(d) A DNSP may propose or the AER may require additional payment amounts in conjunction with additional thresholds for any *parameter*. That is, the DNSP or AER may propose that a customer who experiences a level of service that exceeds a second threshold is paid a larger amount than a customer who experiences a level of service that exceeds the specified threshold.

(e) Alternative payment amounts proposed under clauses 6.3.3(c) and 6.3.3(d) should recognise the intent of GSL payments as outlined in clause 6.3.3(a).

6.4 Exclusions

(a) Despite clause 6.3.2, a DNSP is not required to make GSL payments when the GSL threshold for the frequency of *interruptions parameter* or the duration of *interruptions parameter* or the total duration of *interruptions parameter* is exceeded as a result of any of the following events when an *interruption* on a *DNSP*'s distribution network has not already occurred or is concurrently occurring at the same time:

(1) **[Deleted]**

(2) *load shedding* due to a generation shortfall

(3) automatic *load shedding* due to the operation of under frequency relays following the occurrence of a power system under-frequency condition

(4) *load shedding* at the direction of the Australian Energy Market Operator (AEMO) or a *system operator*

(5) load *interruptions* caused by a failure of the shared transmission network

(6) load *interruptions* caused by a failure of transmission connection assets except where the *interruptions* were due to:-
(a) actions, or inactions, of the DNSP that are inconsistent with good industry practice; or
(b) inadequate planning of transmission connections and the DNSP is responsible for transmission connection planning

Example: A DNSP omits to suppress back-up earth fault (BUEF) protection when undertaking network switching operation that results in momentary paralleling of supplies from two different terminal stations, where this is inconsistent with the standard practice.

(7) load *interruptions* caused by the exercise of any obligation, right or discretion imposed upon or provided for under *jurisdictional electricity legislation* or *national electricity legislation* applying to a DNSP.

(8) load interruptions caused or extended by a direction from state or federal emergency services, provided that a fault in, or the operation of, the network did not cause, in whole or part, the event giving rise to the direction.

(b) An event may also be excluded where daily *unplanned SAIDI* for the DNSP's distribution network exceeds the *major event day* boundary, as set out in appendix D, when the event has not been excluded under clause 6.4(a).

7 Information and reporting requirements

7.1 Information for annual compliance

(a) A DNSP must report on its annual performance against the *parameters* applicable to it as set out in the relevant distribution determination in accordance with any applicable *regulatory information instrument*.

(b) A DNSP must provide details annually of each of the exclusions under clauses 3.3, 5.4 and 6.4 that has applied in calculating the revenue increment or decrement or GSL payments made under the *scheme*.

7.2 Annual review

(a) The AER may review the service performance information relevant to the *scheme* that a DNSP is required to provide annually under any applicable *regulatory information instrument*.

(b) In undertaking the review referred to in clause 7.2(a), the AER may consider: (1)

the appropriateness and accuracy of the DNSP's data collection, reporting and recording processes and systems

(2) whether the performance data reported is consistent with the *parameter* definitions contained in appendix A and other elements contained in appendix C and the distribution determination

(3) whether the revenue increment or decrement proposed by the DNSP has been calculated in accordance with this *scheme*.

(c) The AER will advise the DNSP of the outcome of any review conducted under clause 7.2(a).

7.3 Changes in data collection

(a) A DNSP must notify the AER in writing as soon as it becomes aware of, or plans any material changes to data collection or recording methods used by the DNSP to record and report on the DNSP's performance against the DNSP's *parameters*.

(b) Any notice provided to the AER under clause 7.3(a) must include an assessment of whether the changes to the data collection or recording methods no longer allow the DNSP to accurately record and report on the DNSP's performance against one of the *parameters* applicable to the DNSP.

(c) The AER may amend this *scheme* as a result of the DNSP's new data collection methods.

Appendix A: Performance incentive scheme parameters—standard definitions

Reliability component

Parameter	Definition
Unplanned SAIDI (System Average Interruption Duration Index)	The sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIDI excludes momentary interruptions (~~one~~ three minutes or less).
Unplanned SAIFI (System Average Interruption Frequency Index)	The total number of unplanned sustained customer interruptions divided by the total number of distribution customers. Unplanned SAIFI excludes momentary interruptions (three~~one~~ minutes or less). SAIFI is expressed per 0.01 interruptions.
MAIFIe (Momentary Average Interruption Frequency Index event)	The total number of Momentary Interruption Events that have occurred during the relevant period divided by the Customer Base for the relevant period, provided that Momentary Interruptions that occur within the first three minutes of a Sustained Interruption are excluded from the calculation.
MAIFI (Momentary Average Interruption Frequency Index)	The total number of ~~customer interruptions of one minute or less, divided by the total number of distribution customers.~~Momentary Interruptions that have occurred during the relevant period, divided by the Customer Base, provided that Momentary Interruptions that occur within the first three minutes of a Sustained Interruption are excluded from the calculation.
Momentary Interruption Event	Means one or more Momentary Interruptions that occur within a continued duration of 3 minutes or less, provided that the successful restoration of electricity supply after any number of Momentary Interruptions is taken to be the end of the Momentary Interruption Event.
Momentary Interruption	Means an Interruption to a Distribution Customer's electricity supply with a duration of 3 minutes or less, provided that the end of each Momentary Interruption is taken to be when electricity supply is restored for any duration.

Notes:

1. The number of distribution customers is calculated as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.

2. Unmetered street lighting supplies are excluded. Other unmetered supplies should ~~can either~~ be ~~included or~~ excluded from the calculation of reliability measures, except where a DNSP is unable to identify the unmetered supplies from its historical performance data.

3. Inactive accounts are excluded.

4. [Deleted] ~~In calculating MAIFI, each operation of an automatic reclose device is counted as a separate interruption. Sustained interruptions which occur when a recloser locks out after several attempts to reclose should be deleted from MAIFI calculations.~~

5. If a customer advises the DNSP that it does not want supply to be restored, the customer minutes off supply of this specific customer should not be included in the SAIDI calculation.

6. A single premises outage is a network interruption unless the DNSP establishes customer fault.
7. For high voltage (HV) feeder single phase outages – unless there are accurate means to determine the exact number of customers affected, 33% of all downstream customers are taken to be affected for a single-phase HV feeder outage on a three phase network. 100% of customers are taken to be affected for all other HV outages. For example:, when there is a single HV phase outage on a two phase or single phase HV system, 100% of customers are taken to be affected.

8. For low voltage single phase outage – unless there are accurate means to determine the exact number of customers affected, 33% of all downstream customers for a single phase outage are taken to be affected.

Illustration of how to measure supply interruptions

Figure 1 shows an example of a sustained interruption, where two unsuccessful attempts to reclose are made. In this case, the duration of the interruption is greater than the momentary interruption threshold of 3 minutes.

Figure 1 Sustained interruption, unsuccessful auto-reclose

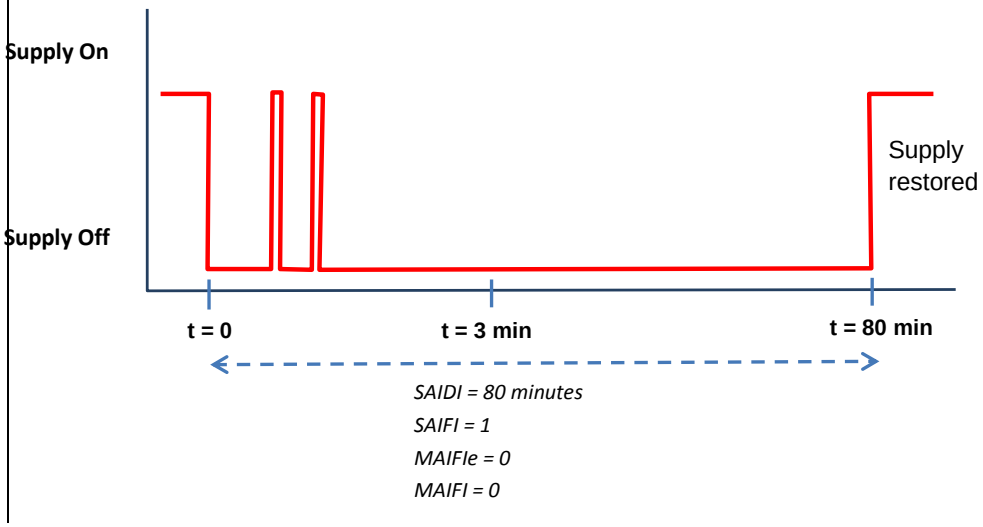
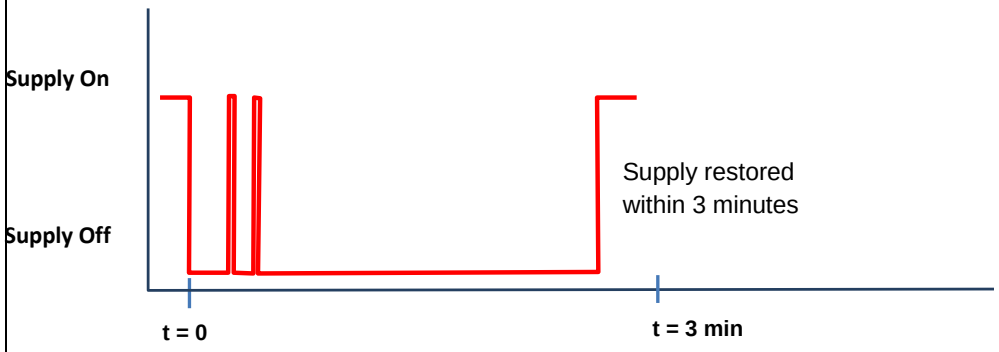


Figure 2 demonstrates the difference between MAIFI and MAIFIe. It shows an example of a momentary interruption event, where the affected customers experience two momentary interruptions before the supply is successfully restored. In this case, the duration of the interruption is less than the momentary interruption threshold of 3 minutes.

Figure 2 Momentary interruption event



= 1 count of MAIFIe
= 2 counts of MAIFI
= 0 count of SAIFI
= 0 minute of SAIDI

Network type	Definition
CBD feeder	a feeder in the central business district (CBD) area of a State or Territory capital; and other equivalent areas that are applicable in the relevant participating jurisdiction as supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground distribution network containing significant interconnection and redundancy when compared to urban areas.
urban feeder	a feeder, which is not a CBD feeder, ~~with actual~~ has a 3-year average maximum demand over the 3-year average ~~reporting period per total~~ feeder route length greater than 0.3 MVA/km.
short rural feeder	a feeder which is not a CBD or urban feeder with a total feeder route length less than 200 km.
long rural feeder	a feeder which is not a CBD or urban feeder with a total feeder route length greater than 200 km.

Comment [A4]: update according to the Draft Guideline

Quality component

No *parameters* are defined.

Customer and GSL components

Parameter	Definition	Unit
Duration of interruptions	The duration of an unplanned interruption experienced by a customer.	minutes
Frequency of interruptions	The number of unplanned sustained interruptions experienced by a customer in a regulatory year.	number
New connections	The connection of electricity supply to a new customer's premises on or before the date agreed to with the customer. For the 'customer service' component, this is expressed as a percentage of the total number of new connections. Note: Does not include re-energisation of existing premises.	number or percentage of total new connections
Notice of planned interruptions	The delivery of notice to customers of a planned interruption on or before the threshold.	number
Response to written enquiries	The provision of a written response to a written enquiry on or before the defined threshold. Written enquiries and responses include email. For the 'customer service' component, this is expressed as a percentage of the total number of written enquiries.	percentage of total written enquiries
Streetlight repair	For the 'GSL' component, the repair of a public light within 'x' business days of each fault report or a period otherwise agreed between the distributor and the person, if that person is the occupier of an immediately neighbouring residence or is the proprietor of an immediately neighbouring business. For the 'customer service' component, the repair of a public light within 'x' business days of each fault, expressed as a percentage of the total number of public light faults.	number or percentage of total faults
Telephone answering	Calls to the fault line answered in 30 seconds where the time to answer a call is measured from when the call enters the telephone system of the call centre (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information. This measure does not apply to: ▪ calls to payment lines and automated interactive services; ▪ calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator. Where the time in which a telephone call is abandoned is not measured, then an estimate of the number of calls abandoned within 30 seconds will be determined by taking 20 per cent of all calls	percentage of total calls

	abandoned. Note: Being placed in a queuing system (automated or otherwise) does not constitute a response.	
Total duration of interruptions	The sum of the durations of all unplanned interruptions experienced by a customer in a regulatory year.	minutes

Appendix B: Calculating incentive rates

Clauses 3.2.2 and 5.3.2 set out how *incentive rates* are to be determined for the reliability of supply and customer service components of the *scheme*.

The *incentive rate* formulae for the *unplanned SAIDI* and *unplanned SAIFI parameters* are shown below:

$$ir_{SAIFI,urban} = \frac{\left(\frac{\left(VCR_n * (1+CPI)\right)}{1+w_n} * C_n\right)}{R} \Big/ (365.25 * 24 * 60) * \frac{SAIDI_n}{SAIFI_n} * 100 \quad \text{..... (1)}$$

$$ir_{SAIDI,urban} = \frac{\left(\frac{VCR_n * (1+CPI) * \left(1 - \left(\frac{1}{1+w_n}\right)\right) * C_n}{R}\right)}{(365.25 * 24 * 60)} * 100 \quad \text{..... (2)}$$

where:

ir	is the *incentive rate* (expressed in a percentage per unit of the *parameter*)
n	is the *network type*
VCR_n	is the VCR for *network type* n escalated to the start of the relevant *regulatory control period*
CPI	the *consumer price index* used to adjust *VCR* from the September quarter 2008 to the start of the relevant *regulatory control period*, calculated in accordance with clause 3.2.2(b) and the relevant distribution determination
w_n	is the *network type* weighting for the *unplanned SAIDI* or *unplanned SAIFI parameter* from table 1 in the *scheme*
C_n	is the average annual energy consumption for *network type* n
R	is the average of the smoothed annual revenue requirement for the relevant *regulatory control period*
$SAIDI_n$	is the average of the *unplanned SAIDI* targets in the *regulatory control period* for *network type* n
$SAIFI_n$	is the average of the *unplanned SAIFI* targets in the *regulatory control period* for *network type* n.

Worked example

For the *unplanned SAIFI parameter*, assume that a DNSP has the attributes set out in the following table.

Attribute	Value
Start of the regulatory control period	2010
Network type	Urban feeders
VCR	$47 850 per MWh ($2008)
Average annual energy consumption by network type (i.e. urban feeders)	2 000 000 MWh
Average smoother revenue requirement	$300 000 000
Average unplanned SAIFI target – urban feeders	1.150
Average unplanned SAIDI target – urban feeders	70.0

The *incentive rate* is determined in accordance with clause 3.2.2(i) as follows:

(1) determine the VCR at 2010:

$$47\,850*(1+CPI)=(e.g.)\$52\,000/\text{MWh}$$

(2) determine the portion of VCR assigned to the *unplanned SAIFI parameter* for the urban feeders *network type* from table 1:

$$\frac{52\,000}{(1+1.5)}=20\,800$$

(3) multiply the portion of the VCR assigned to *unplanned SAIFI* (in $/MWh) by the average annual energy consumption for the network type (urban feeders) (in MWh) expected for the *regulatory control period*. Divide by the average of the smoothed *annual revenue requirement* for each *regulatory year* of the *regulatory control period* (in $, real referenced to the first *regulatory year* of the *regulatory control period*) as determined by the AER in the relevant distribution determination:

$$\frac{(20\,800*2\,000\,000)}{300\,000\,000}=138.67$$

(4) divide by the average number of minutes in a *regulatory year*:

$$\frac{138.67}{(365.25*24*60)}=0.0002636$$

(5) multiply by the average of the annual performance targets for *unplanned SAIDI* and divide by the average of the annual *performance targets* for *unplanned SAIFI* in the *regulatory control period*:

$$0.0002636 * \left(\frac{70.0}{1.150} \right) = 0.01605$$

(6) expressed as a percentage for each 0.01 *interruption* away from the *performance target*, the *incentive rate* is:

$0.01605 * 100 = 1.605\%$ per unit of *unplanned SAIFI* (where *unplanned SAIFI* is measured in 0.01 *interruptions* away from the indexed target)

where:

$$ir_{SAIFI,urban} = \frac{\left(\frac{\left(\frac{47\,850 * (1 + 0.0867)}{1 + 1.5} \right) * 2\,000\,000}{300\,000\,000} \right)}{(365.25 * 24 * 60)} * \frac{70.0}{1.150} * 100 = 1.605\%$$

per unit of *unplanned SAIFI*

Similarly, the *incentive rate* for the *unplanned SAIDI* urban *network type* in this example is:

$$ir_{SAIDI,urban} = \frac{\left(\frac{47\,850 * (1 + 0.0867) * \left(1 - \left(\frac{1}{1 + 1.5} \right) \right) * 2\,000\,000}{300\,000\,000} \right)}{(365.25 * 24 * 60)} * 100 = 0.01605\%$$

per unit of *unplanned SAIDI*.

Appendix C: Adjustments to allowed revenue

Calculating allowed revenue

Under the reliability of supply, quality of supply and customer service components of the *scheme*, a DNSP's annual revenue (through average tariffs for all customers) is increased (or decreased) based on changes in service performance from *regulatory year* to *regulatory year*. The s-factor applies only to *standard control services*.

Clause 6.2.6 of the NER requires that the control mechanism for *standard control services* must be of the prospective *CPI* minus X form, or some incentive-based variant of the prospective *CPI* minus X form. The *s-factor* *amount*, expressed as a nominal dollar ~~percentage~~ change in revenue for each regulatory year, is incorporated into the control mechanism in accordance with the *NER* and the DNSP's distribution determination.

The value of the *s-factor* for each *regulatory year* of a *regulatory control period* is calculated in accordance with this appendix.

Below is the formula to apply to standard control services revenues.

Figure C.1 Calculation of revenue adjustment for the STPIS results

1. $TAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} \, q_t^{ij}$ $\quad i = 1, \ldots, n \text{ and } j = 1, \ldots, m \text{ and } t = 1, 2 \ldots, 5$

2. $TAR_t = AAR_t + I_t + S_t + B_t + C_t$ $\quad t = 1, 2 \ldots, 5$

3. $AAR_t = AR_t$ $\quad t = 1$

4. $AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t)$ $\quad t = 2, \ldots, 5$

where:

TAR_t is the total allowable revenue in year t.

p_t^{ij} is the price of component 'j' of tariff 'i' in year t.

q_t^{ij} is the forecast quantity of component 'j' of tariff 'i' in year t.

t is the regulatory year.

AR_t is the annual smoothed revenue requirement in the Post Tax Revenue Model (PTRM) for year t.

AAR_t is the adjusted annual smoothed revenue requirement for year t.

I_t is the sum of incentive scheme adjustments in year t. Likely to incorporate but not limited to revenue adjustments for f-factor. To be decided in the distribution determination.

S_t is the s-factor amount for regulatory year t.[1] As it currently stands, the s-factor will incorporate any adjustments required due to the application of the AER's STPIS.

B_t is the sum of annual adjustment factors in year t. Likely to incorporate but not limited to adjustments for the unders and overs account. To be decided in the distribution determination.

C_t is the sum of approved cost pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER. It will also include any end-of-period adjustments in year t. To be decided in the distribution determination.

ΔCPI_t is the CPI for year t, as determined in the relevant distribution determination.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t is the X-factor in year t, incorporating annual adjustments to the PTRM for the trailing cost of debt where necessary. To be decided in the distribution determination.

Figure C.2 S-factor calculation formula

5. $S_t = AR_{t-2}S^{\%}_{t-2} \times (1 + \Delta CPI_{t-1}) - Sb_t + Sb_{t-1} \times (1 + \Delta CPI_{t-1}) \qquad t = 1, \ldots, 5$

S_t is the s-factor for regulatory year t.[2] As it currently stands, the s-factor will incorporate any adjustments required due to the application of the AER's STPIS.[3]

AR_{t-2} For t=1 and 2, AR_{t-2} represents the annual smoothed revenue requirement in the Post Tax Revenue Model (PTRM) for year 4 and 5 of the previous regulatory control period, respectively.

$S^{\%}_{t-2}$ is the sum of the raw s-factors for all parameters for regulatory year t -2, before banking, expressed as a percentage of revenue (or prices) calculated annually through the compliance assessment. For t =1 and 2, $S^{\%}_{t-2}$ represents the sum of the raw s-factors for year 4 and 5 of the previous regulatory control period, respectively.

Sb_t is the s-bank for the current regulatory year t, expressed as real dollars amounts.

Sb_{t-1} is the s-bank for the previous regulatory year t–1, expressed as real dollar amounts. For t =1, it represents the s-bank for year 5 of the previous regulatory control period.

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1 The meaning for year "t" under the price control formula is different to that in Appendix C of STPIS. Year "t+1" in Appendix C of STPIS is equivalent to year "t" in the price control formula of this decision.

2 The meaning for year "t" under the price control formula is different to that in Appendix C of STPIS. Year "t+1" in Appendix C of STPIS is equivalent to year "t" in the price control formula of this decision.

3 AER, *Electricity distribution network service providers - service target performance incentive scheme*, 1 November 2009.

The operation of the s-bank mechanism

The *s-factor* may cause volatility in prices when service performance varies about the *performance target* from *regulatory year* to *regulatory year*. In accordance with clauses 2.5(d) and 2.5(e) a DNSP may delay the action of a revenue increment or decrement or a portion of the revenue increment or decrement for one *regulatory year* using the s-bank mechanism.

The s-bank-mechanism, expressed in nominal dollar terms for each regulatory year, is incorporated into the calculation as in Equation 5.

Revenue at risk

The sum of the *s-factors* for all *parameters* ($S_t^{"}$) is not to exceed or fall below, respectively, the upper or lower limits of the *revenue at risk* as specified in clause 2.5(a) or as varied in accordance with clause 2.5(b) and specified in the relevant distribution determination.

Equation ~~(4A)~~ 6 below places limits on the sum of the raw *s factors* for all *parameters* ($S_t^{"}$) to achieves this. If the sum of the raw *s-factors* for all *parameters* is equal to either the upper or lower limit or within the *revenue at risk* (that is equal to or between ± 5 per cent) then $S_t^{"} = S_t^{'}$.

~~1.~~6. $S_t^{"} = \min(\max(S_t^{ROS} + S_t^{'CS}, \underline{S}), \overline{S})$ ~~(4A)~~

where:

$\underline{S}$ is the lower limit of the overall *revenue at risk* in accordance with clause 2.5

$\overline{S}$ is the upper limit of the overall *revenue at risk* in accordance with clause 2.5

S_t^{ROS} is the sum of the raw *s-factors* for all reliability of supply (ROS) *parameters*, as determined in equation ~~(5A)~~8.

$S_t^{'CS}$ is the sum of the *s-factors* for all customer service (CS) *parameters*, as determined in equation ~~(4B)~~7.

The sum of the *s-factors* for all customer service *parameters* ($S_t^{'CS}$) is not to exceed or fall below, respectively, the upper or lower limits of the *revenue at risk* as specified in clause 5.2(a). Equation (~~4B~~7) below places limits on the sum of the raw *s-factors* for all customer service *parameters* to achieve this.

~~2.~~7. $S_t^{'CS} = \min(\max(S_t^{CS}, \underline{S}^{CS}), \overline{S}^{CS})$ ~~(4B)~~

where:

$\underline{S}^{CS}$ is the lower limit of the *revenue at risk* for all customer service (CS) *parameters* in accordance with clause 5.2(a)

$\overline{S}^{CS}$ is the upper limit of the *revenue at risk* for all customer service (CS) *parameters* in accordance with clause 5.2(a)

S_t^{CS} is the sum of the raw *s-factors* for customer service (CS) *parameters*, as determined in equation (~~5B~~9).

The service standards s-factor

The *s-factor* for each *parameter* is calculated by comparing a DNSP's performance against its *parameters* and the *performance targets* and *incentive rates* included in the DNSP's distribution determination for a *regulatory year* during the *regulatory control period*.

The raw *s-factor* is the sum of the *s-factors* for each *parameter*. Equation (~~4A~~6) ensures that the raw *s-factor* result can not exceed the percentage of *revenue at risk* specified in clause 2.5 or the relevant distribution determination.

The sum of the raw *s-factors* for all reliability of supply *parameters* (S_t^{ROS}) is calculated as follows:

~~3.~~8. $$S_t^{ROS} = \sum_p ir_p * \left[Tar_{p,t-1} - Act_{p,t-1}\right]$$ ~~(5A)~~

where:

S_t^{ROS} is the sum of the raw *s-factors* for all reliability of supply (ROS) *parameters*

p is a reliability of supply performance *parameter*

ir_p is the *incentive rate* for *parameter p* calculated in accordance with clause 3.2.2

Act_p is the actual performance for *parameter p*

Tar_p is the target performance for *parameter p*

t is the *regulatory year t*, and t–1 is the *regulatory year* in which the performance *parameter* is measured.

The *s-factor* for an individual customer service *parameter* (S_t^{CS}) is not to exceed or fall below, respectively, the upper or lower percentage limits of the *revenue at risk* as specified in clause 5.2(b). Equation (~~5B~~9) below places limits on the *s-factor* for each individual customer service *parameters* to achieve this.

~~4.~~9. $$S_t^{CS} = \sum_p \min(\max(ir_p * \left[Tar_{p,t-1} - Act_{p,t-1}\right], \underline{S}^{ICS}), \overline{S}^{ICS})$$ ~~(5B)~~

where:

S_t^{CS} is the sum of the *s-factors* for all customer service (CS) *parameters*

p is a customer service performance *parameter*

ir_p is the *incentive rate* for *parameter p* calculated in accordance with clause 5.3.2

Act_p is the actual performance for *parameter p*

Tar_p is the target performance for *parameter p*

$\underline{S}^{ICS}$ is the lower limit of the *revenue at risk* for an individual customer service (ICS) *parameter* as set out in clause 5.2(b)

$\overline{S}^{ICS}$ is the upper limit of the *revenue at risk* for an individual customer service (ICS) *parameter* as set out in clause 5.2(b)

Equations (~~5A~~8) and (~~5B~~9) provide for a 12-month gap between the *regulatory year* of service performance and the application of the *s-factor*.

~~Overlap between regulatory control periods~~

~~A DNSP's performance in the last *regulatory year* of its *regulatory control* period will affect its revenue in the second *regulatory year* in the next *regulatory control period*.~~

~~For example, if a DNSP has a *regulatory control period* of 5 *regulatory years* between 1 July 2007 and 30 June 2012, its performance in the 2011–12 *financial year* will affect its revenues in the second *regulatory year* of the next *regulatory control period* (that is from 1 July 2014).~~

~~Alternatively, if a DNSP has a *regulatory control period* of 5 *regulatory years* between 1 January 2006 and 31 December 2010, its performance in the 2010 *calendar year* will affect its revenues in the second *regulatory year* of the next *regulatory control period* (that is from 1 January 2012).~~

~~To account for any step change in revenues (or prices), via X_0, from one *regulatory control period* to the next, the 'raw' *s-factor* calculated for the last and second last *regulatory years* of the *regulatory control period* (which is applied in the first and second *regulatory years* of the next *regulatory control period*) is adjusted as follows:~~

$$\text{~~}S_t^{'''} = \frac{S_t^{'}}{(1 - X_0)}\text{~~} \quad \text{~~(6)~~}$$

~~where:~~

~~$S_t^{'}$ is the sum of the *s-factors* for all *parameters*, after application of the s-bank, as determined in equation (3)~~

~~X_0 is the percentage change between the *annual revenue requirement* in the last *regulatory year* of the previous *regulatory control period* and the *annual revenue requirement* for first *regulatory year* of the next *regulatory control period* taken from the post-tax revenue model. This is illustrated above in equations (1A), (1B) and (1C).~~

~~In this instance, the value of S_t''' is used in equation (2) in place of S_t' for the purposes of calculating the *s factor* for the second last and the last *regulatory year* of the current *regulatory control period*.~~

Appendix D: Major event days

A *major event day* is defined in the Institute of Electrical and Electronics Engineers (IEEE) standard 1366-2003, IEEE Guide for Electric Power Distribution Reliability Indices. This standard was published in May 2004. The IEEE standard excludes natural events which are more than 2.5 standard deviations greater than the mean of the log normal distribution of five *regulatory years*' SAIDI data (the '2.5 beta method').

The 2.5 beta method is the AER's minimum or 'safe harbour' approach to setting the *major event day* boundary that a DNSP may propose. However, in accordance with clause 2.2 of this *scheme*, a DNSP can propose a *major event day* boundary that is greater than 2.5 standard deviations from the mean. Provided the AER agrees to a DNSP's proposal for a 'greater' boundary, natural events that are more than the agreed multiple of standard deviations from the mean of the log normal distribution of five *regulatory years*' SAIDI data will be excluded.

Any day where *unplanned SAIDI* exceeds the *major event day* boundary may be excluded when calculating the values of the *parameters* for the purpose of calculating the revenue increment or decrement resulting from this *scheme*.

In calculating daily *unplanned SAIDI*, any *interruption* that spans multiple days is accrued to the day on which the *interruption* begins. Where an *interruption* on a *major event day* spans multiple days, the entire length of the *interruption* is excluded when calculating the values of the *parameters* for the purpose of calculating the revenue increment or decrement resulting from this *scheme*.

A DNSP may propose in accordance with clause 2.2 of this *scheme* a *major event day* boundary that is greater than 2.5 standard deviations from the mean. A DNSP subject to a beta threshold greater than 2.5 during a *regulatory control period* may also propose to reduce its beta threshold (to a minimum of 2.5 beta) in the subsequent *regulatory control period* in accordance with clause 2.2 of the *scheme*.

In calculating daily *unplanned SAIDI*, any *interruption* that spans multiple days is accrued to the day on which the *interruption* begins.

The *major event day* boundary is calculated at the end of each reporting period (typically one *regulatory year*) for use during the next reporting period using the 2.5 beta method as follows:

1. Collect values of daily *unplanned SAIDI* over five sequential *regulatory years* ending on the last day of the last complete reporting period — these values should reflect any exclusions permitted under clause 3.3 and 5.4 of the *scheme*. If fewer than five *regulatory years* of historical data are available, the most recent data should be used.

2. Only those days where an *unplanned SAIDI*/day value > 0 are considered (do not include days that did not have any *interruptions*).

3. Calculate the natural logarithm (ln) of each daily unplanned SAIDI value in the data set.

4. Apply a commonly accepted statistical test to the data set and where application of the statistical test indicates:

(a) the logarithms of the data set are not normally distributed:

(1) Propose an alternative data transformation method which results in a more normally distributed data set in accordance with clause 2.2 of this *scheme*.

(2) Apply the proposed alternative data transformation to calculate each *daily unplanned SAIDI* value in the transformed data set.

(3) Find α (alpha) as the average of each daily *unplanned SAIDI* value to which the proposed alternative data transformation method has been applied.

(4) Find β (beta) as the standard deviation of each daily *unplanned SAIDI* value to which the proposed alternative data transformation method has been applied.

(5) The boundary for an extreme event or *major event day* (T_{MED}) is then calculated such that the transformed value is as follows:

$$Transformed\left(T_{MED}\right) = \alpha + 2.5\beta$$

(where the value of 2.5β is adjusted to reflect any alternative amount permitted to be used in accordance with this *scheme*.)

(b) the logarithms of the data set are normally distributed, or if the AER agrees with a DNSP that the use of an alternative data transformation method is not appropriate, despite the logarithms of the data set not being normally distributed, or where the AER determines that an alternative transformation method is not appropriate:

(1) Find α (alpha), the average of the logarithms of the data set.

(2) Find β (beta), the standard deviation of the logarithms of the data set.

(3) The boundary for an extreme event or major event day (T_{MED}) is then calculated as follows:

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

(where the value of 2.5β is adjusted to reflect any alternative amount permitted to be used in accordance with this scheme.)

5. Any day in the new reporting period where the total *unplanned SAIDI* exceeds this value of T_{MED} is classified as a *major event day*.

6. Where 4(a) applies a DNSP must, in addition to the requirements of clause 2.2 of this *scheme*:

   (a) Demonstrate that the natural logarithm of the data set of each unplanned SAIDI value is not normally distributed.

   (b) Explain the proposed alternative data transformation method.

   (c) Provide the calculations that demonstrate the application of the alternative data transformation method to the unplanned SAIDI values.

   (d) Provide the data set resulting from applying the proposed alternative transformation method.

   (e) Demonstrate that the resulting data set is normally distributed or that the normality of the data set is improved.

Appendix E: Deleted ~~Worked example of s-factor calculation~~

~~Assume that the scheme for a DNSP consists of *unplanned SAIDI* and *unplanned SAIFI parameters* for the urban and short rural network types and the telephone answering and street light repair customer service *parameters*, with *incentive rates* (ir_p) and actual service performance against *performance targets* as set out in the following table.~~

~~Regulatory year~~	~~1~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~	~~7~~	~~8~~
~~SAIDI – urban~~	-	-	-	-	-	-	-	-
~~Target performance~~	~~70.0~~	~~70.0~~	~~70.0~~	~~70.0~~	~~70.0~~	~~67.0~~	~~67.0~~	~~67.0~~
~~Actual performance~~	~~70.0~~	~~70.0~~	~~65.0~~	~~65.0~~	~~65.0~~	~~65.0~~	~~65.0~~	~~65.0~~
~~Incentive rate~~	~~0.0325~~	~~0.0325~~	~~0.0325~~	~~0.0325~~	~~0.0325~~	~~0.0341~~	~~0.0341~~	~~0.0341~~
~~Raw s-factor~~	~~0.000%~~	~~0.000%~~	~~0.162%~~	~~0.162%~~	~~0.162%~~	~~0.068%~~	~~0.068%~~	~~0.068%~~
-	-					-		
~~SAIDI – short rural~~	-					-		
~~Target performance~~	~~260.0~~	~~250.0~~	~~240.0~~	~~230.0~~	~~220.0~~	~~210.0~~	~~210.0~~	~~210.0~~
~~Actual performance~~	~~220.0~~	~~215.0~~	~~210.0~~	~~205.0~~	~~200.0~~	~~195.0~~	~~190.0~~	~~190.0~~
~~Incentive rate~~	~~0.0162~~	~~0.0162~~	~~0.0162~~	~~0.0162~~	~~0.0162~~	~~0.0170~~	~~0.0170~~	~~0.0170~~
~~Raw s-factor~~	~~0.649%~~	~~0.568%~~	~~0.487%~~	~~0.406%~~	~~0.325%~~	~~0.256%~~	~~0.341%~~	~~0.341%~~
-	-					-		
~~SAIFI – urban~~	-					-		
~~Target performance~~	~~1.150~~	~~1.150~~	~~1.150~~	~~1.150~~	~~1.150~~	~~1.040~~	~~1.040~~	~~1.040~~
~~Actual performance~~	~~1.100~~	~~1.070~~	~~1.040~~	~~1.010~~	~~0.980~~	~~0.980~~	~~0.980~~	~~0.980~~
~~Incentive rate~~	~~2.0365~~	~~2.0365~~	~~2.0365~~	~~2.0365~~	~~2.0365~~	~~2.1384~~	~~2.1384~~	~~2.1384~~
~~Raw s-factor~~	~~0.102%~~	~~0.163%~~	~~0.224%~~	~~0.285%~~	~~0.346%~~	~~0.128%~~	~~0.128%~~	~~0.128%~~
-	-					-		
~~SAIFI – short rural~~	-					-		
~~Target performance~~	~~1.800~~	~~1.800~~	~~1.800~~	~~1.800~~	~~1.800~~	~~1.800~~	~~1.800~~	~~1.800~~
~~Actual performance~~	~~1.900~~	~~1.850~~	~~1.800~~	~~1.750~~	~~1.700~~	~~1.700~~	~~1.700~~	~~1.700~~
~~Incentive rate~~	~~1.0183~~	~~1.0183~~	~~1.0183~~	~~1.0183~~	~~1.0183~~	~~1.0692~~	~~1.0692~~	~~1.0692~~
~~Raw s-factor~~	~~-0.102%~~	~~-0.051%~~	~~0.000%~~	~~0.051%~~	~~0.102%~~	~~0.107%~~	~~0.107%~~	~~0.107%~~
-	-					-		
~~Telephone answering~~	-					-		
~~Target performance~~	~~70.000~~	~~70.000~~	~~70.000~~	~~70.000~~	~~70.000~~	~~70.000~~	~~70.000~~	~~70.000~~
~~Actual performance~~	~~84.000~~	~~77.000~~	~~70.000~~	~~63.000~~	~~56.000~~	~~60.000~~	~~65.000~~	~~70.000~~
~~Incentive rate~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~	~~-0.0400~~
~~Raw s-factor~~	~~0.560%~~	~~0.280%~~	~~0.000%~~	~~-0.280%~~	~~-0.560%~~	~~-0.400%~~	~~-0.200%~~	~~0.000%~~
~~Cap on individual customer service s-factors~~	~~0.500%~~	~~0.280%~~	~~0.000%~~	~~-0.280%~~	~~-0.500%~~	~~-0.400%~~	~~-0.200%~~	~~0.000%~~
-	-					-		
~~Streetlight repair~~	-					-		
~~Target performance~~	~~60.000~~	~~60.000~~	~~60.000~~	~~60.000~~	~~60.000~~	~~74.000~~	~~74.000~~	~~74.000~~
~~Actual performance~~	~~86.000~~	~~80.000~~	~~74.000~~	~~68.000~~	~~62.000~~	~~65.000~~	~~69.000~~	~~73.000~~
~~Incentive rate~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~	~~-0.0200~~
~~Raw s-factor~~	~~0.520%~~	~~0.400%~~	~~0.280%~~	~~0.160%~~	~~0.040%~~	~~-0.180%~~	~~-0.100%~~	~~-0.020%~~
~~Cap on individual customer service s-factors~~	~~0.500%~~	~~0.400%~~	~~0.280%~~	~~0.160%~~	~~0.040%~~	~~-0.180%~~	~~-0.100%~~	~~-0.020%~~
-	-					-		
-	-					-		
~~Sum of capped individual customer service~~ ~~equation (5B9)~~	~~1.000%~~	~~0.680%~~	~~0.280%~~	~~-0.120%~~	~~-0.460%~~	~~-0.580%~~	~~-0.300%~~	~~-0.020%~~

s-factors									
Sum of raw reliability of supply raw s-factors	equation (5A8)	0.649%	0.680%	0.873%	0.904%	0.935%	0.559%	0.644%	0.644%
-		-					-		
Customer service s-factor with cap	equation (4B7)	1.000%	0.680%	0.280%	-0.120%	-0.460%	-0.580%	-0.300%	-0.020%
S-factor with overall cap	equation (4A6)	1.649%	1.360%	1.153%	0.784%	0.475%	-0.021%	0.344%	0.624%
-		-					-		
S-bank		1.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
S-factor after banking	equation (3)	0.649%	2.360%	1.153%	0.784%	0.475%	-0.021%	0.344%	0.624%
-		-					-		
Delayed application by two regulatory years	equation (6)	-		0.649%	2.360%	1.153%	0.611%	0.370%	-0.021%
Final s-factor	equation (2)	-		0.649%	1.700%	-1.179%	-0.535%	-0.240%	-0.390%
-		-					-		
-		-					-		
Raw PTRM revenue ($ million)		$200.00	$214.24	$229.49	$245.83	$263.34	$347.78	$372.54	$399.07
Final revenue ($ million)	equation (1)	$200.00	$214.24	$230.98	$251.64	$266.37	$349.91	$373.92	$398.99
S-factor adjustment ($ million)		**-**	**-**	**$1.490**	**$4.206**	**-$3.178**	**-$1.884**	**-$0.898**	**-$1.562**
S-factor adjustment percentage		-	-	0.649%	2.360%	1.153%	0.611%	0.370%	-0.021%

The following steps calculate the *s-factor* that is applied to revenues:

1. Determine the *s-factor* for each individual customer service *parameter* using equation (5B). Calculate the raw *s-factor* for each *parameter* by taking the difference between the target and actual performance for each of the *parameters* and multiply by the *incentive rate* for the relevant *parameter*. Determine that the individual *s-factors* for each customer service *parameter* does not exceed the upper or lower limits on the *revenue at risk* (± 0.5 per cent).
2. Determine the sum of the raw *s-factors* for all reliability of supply *parameters* using equation (5A). Calculate the raw *s-factor* for each *parameter* by taking the difference between the target and actual performance for each of the *parameters* and multiply by the *incentive rate* for the relevant *parameter*.
3. Determine that the sum of the *s-factors* for all customer service *parameters* does not exceed the upper or lower limits on the *revenue at risk* (± 1 per cent) using equation (4B).
4. Determine that the sum of the raw *s-factors* for all *parameters* is within the *revenue at risk* (± 5 per cent) using equation (4A).
5. Decide if the s-bank mechanism will be employed using equation (3), as shown in *regulatory year* 1. The use of the s-bank is optional and has the effect of delaying a portion of the revenue increment or decrement for one *regulatory year*.
6. Account for any step change in the revenue (or prices) from one *regulatory control period* to the next using equation (6). The formula is applied to the first two *regulatory years* of the next *regulatory control period*.
7. Remove the effect of the *s-factor* from the previous *regulatory year* using equation (2).
8. The resulting adjusted *s-factor* is applied to the control mechanism, for example equation (1A), (1B) and (1C).

Appendix F: Adjustment of performance target where the reward or penalty exceeds the revenue cap

Where a DNSP's actual performance is much better or worse than the performance targets to the extent that the financial reward or penalty under the STPIS exceeds the revenue at risk cap under the scheme, the following steps are to be followed to make adjustments to the performance targets:

First, consistent with our proposed new ratio between SAIDI and SAIFI incentive rates, we allocate 0.6P to SAIDI minutes and 0.4P to SAIFI.

F1. $P = P_{SAIDI} + P_{SAIFI}$

F2. $P_{SAIDI} = 0.6P$

F3. $P_{SAIDI} = P_{\text{SAIDI,CBD}} + P_{\text{SAIDI,urban}}$

F4. $P_{SAIDI,CBD} = P_{SAIDI} \times \frac{ir_{\text{SAIDI,CBD}}}{ir_{\text{SAIDI,CBD}} + ir_{\text{SAIDI,urban}}}$

F5. $P_{\text{SAIDI,urban}} = P_{SAIDI} \times \frac{\text{ir}}{ir_{SAIDI,CBD} + ir_{\text{SAIDI,urban}}}$

F6. $SAIDI_{CBD} = \frac{P_{\text{SAIDI,CBD}}}{ir_{\text{SAIDI,CBD}}} = \frac{P_{SAIDI}}{ir_{\text{SAIDI,CBD}} + ir_{\text{SAIDI,urban}}}$

F7. $SAIDI_{Urban} = \frac{P_{Urban}}{ir_{\text{SAIDI,urban}}} = \frac{P_{SAIDI}}{ir_{\text{SAIDI,CBD}} + ir_{\text{SAIDI,urban}}}$

F8. $SAIDI_{CBD} = SAIDI_{Urban}$

F9. Y_n is the number of years covered by the regulatory control period where such adjustments are necessary. Typically this value is 5.

Therefore, SAIDI performance targets for CBD and urban networks require same adjustments. Dividing this adjustment by the number of years covered by the relevant regulatory control period "Y_n ", the corresponding number of years within a regulatory period, adjustment to the annual performance target is derived:

F10. $\frac{1}{Y_n} SAIDI_{CBD} = \frac{1}{Y_n} \frac{P_{SAIDI}}{ir_{\text{SAIDI,CBD}} + ir_{\text{SAIDI,urban}}}$

Secondly, we allocate the rest of P to SAIFI

F11. $P_{SAIFI} = 0.4P$

F12. $P_{SAIFI} = P_{\text{SAIFI,CBD}} + P_{\text{SAIFI,urban}}$

F13. $P_{SAIFI,CBD} = P_{SAIFI} \times \frac{ir_{\text{SAIFI,CBD}}}{ir_{\text{SAIFI,CBD}} + ir_{\text{SAIFI,urban}}}$

F14. $P_{\text{SAIFI,urban}} = P_{SAIFI} \times \frac{\text{ir}}{ir_{SAIFI,CBD} + ir_{\text{SAIFI,urban}}}$

F15. $SAIFI_{CBD} = \frac{P_{\text{SAIFI,CBD}}}{ir_{\text{SAIFI,CBD}}} = \frac{P_{SAIFI}}{ir_{\text{SAIFI,CBD}} + ir_{\text{SAIFI,urban}}}$

F16. $SAIFI_{Urban} = \frac{P_{Urban}}{ir_{\text{SAIFI,urban}}} = \frac{P_{SAIDI}}{ir_{\text{SAIFI,CBD}} + ir_{\text{SAIFI,urban}}}$

F17. $SAIFI_{CBD} = SAIFI_{Urban}$

Similarly, SAIFI performance targets for CBD and urban networks require same adjustments as below:

F18. $\frac{1}{Y_n} SAIFI_{CBD} = \frac{1}{Y_n} \frac{P_{SAIFI}}{ir_{\text{SAIFI,CBD}} + ir_{\text{SAIFI,urban}}}$

Assumptions

Assuming the calculated total raw s-factor for the regulatory year t is $(P + P_0)\%$, with $P\%$ being residue above or below the revenue at risk, typically ±5%, as set during the revenue determination. We also assume the distributor only has CBD and urban networks. We need to make adjustment accordingly to the SAIDI and SAIFI targets for the forthcoming regulatory period, between CBD and urban networks, based on the incentive rates respectively. The VCR of previous regulatory control period will be adopted for the calculation of SAIFI and SAIDI incentive rates.

Glossary

This *scheme* uses the following definitions.

annual revenue requirement	has the meaning set out in the *National Electricity Rules*.
business day	has the meaning set out in the *National Electricity Rules*.
CAIDI (Customer Average Interruption Duration Index)	the sum of the duration of each sustained customer *interruption* (in minutes), divided by the total number of sustained customer *interruptions* (SAIDI divided by SAIFI). CAIDI excludes momentary *interruptions* (one minute or less duration).
CPI (consumer price index)	has the meaning set out in the *National Electricity Rules*. The CPI used to escalate the value of customer reliability to the start of the relevant regulatory control period should be the same that was used to roll forward the DNSP's regulatory asset base (using the roll forward model) in the relevant distribution determination.
distribution consultation procedures	has the meaning set out in the *National Electricity Rules*.
DNSP (distribution network service provider)	has the meaning set out in the *National Electricity Rules*.
inactive account	a connection to the DNSP's network that is inactive, that is, does not have an active account with a retailer or is otherwise ineligible to take a supply of electricity.
incentive rate	the rate at which a revenue increment or decrement accrues due to a change in service performance.
interruption	an *interruption* is any loss of electricity supply to a customer associated with an outage of any part of the electricity supply network, including generation facilities and transmission networks, of more than 0.5 seconds, including outages affecting a single premises. The customer *interruption* starts when recorded by equipment such as SCADA or, where such equipment does not exist, at the time of the first customer call relating to the network outage. An *interruption* may be planned or unplanned, momentary or sustained. Does not include subsequent *interruptions* caused by network switching during fault finding. An interruption ends when supply is again generally

	available to the customer.
jurisdictional electricity legislation	has the meaning set out in the *National Electricity Law*.
load shedding	has the meaning set out in the *National Electricity Rules*.
MAIFI	has the meaning set out in appendix A.
MAIFIe	has the meaning set out in appendix A.
major event day	has the meaning set out in appendix D.
NEL (National Electricity Law)	the *National Electricity Law* set out in the schedule to the National Electricity (South Australia) Act 1996 (SA) and applied in each of the participating jurisdictions.
national electricity legislation	has the meaning set out in the *National Electricity Law*.
national electricity market	has the meaning set out in the *National Electricity Law*.
NER (National Electricity Rules)	the rules made under Part 7 of the *National Electricity Law*.
network type	the type of network supplying customers being either CBD, urban, short rural or long rural feeders as defined in appendix A.
parameters	the performance measures defined in appendix A.
performance target	the level of performance that results in a DNSP neither receiving a financial penalty nor financial reward in the *regulatory year*.
regulatory obligation or requirement	has the meaning assigned in the *National Electricity Law*.
regulatory control period	has the meaning set out in the *National Electricity Rules*.
regulatory information instrument	has the meaning set out in the *National Electricity Law*.
regulatory proposal	has the meaning set out in the *National Electricity Rules*.
regulatory year	has the meaning set out in the *National Electricity Rules*.

revenue at risk	as defined in clauses 2.5 and 5.2, the amount by which a DNSP's revenue may increase or decrease as a result of the application of the *scheme*.
unplanned SAIDI	has the meaning set out in appendix A.
unplanned SAIFI	has the meaning set out in appendix A.
s-factor or service standards factor	the percentage revenue increment or decrement that applies in each *regulatory year*.
s-factor amount	The financial reward or penalty, expressed as a nominal dollar amount for each regulatory year (t) as a result of a DNSP's service performance outcome of year t-2, calculated in accordance with Appendix C
scheme	*service target performance incentive scheme*.
service target performance incentive scheme	the *service target performance incentive scheme* defined in the *National Electricity Rules*.
standard control service	has the meaning set out in the *National Electricity Rules*.
system operator	has the meaning set out in the *National Electricity Rules*.
unplanned event	an event that causes an *interruption* where the customer has not been given the required notice of the *interruption* or where the customer has not requested the outage.
unplanned interruption	an *interruption* due to an unplanned event.