



**FINAL**

**Electricity transmission  
network service provider**

**Service target performance  
incentive scheme**

**Version 5 (corrected)**

**October 2015**



© Commonwealth of Australia 2015

This work is copyright. In addition to any use permitted under the Copyright Act 1968, all material contained within this work is provided under a Creative Commons Attributions 3.0 Australia licence, with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication. The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the  
Director, Corporate Communications Australian Competition and Consumer Commission  
GPO Box 4141  
Canberra ACT 2601  
or [publishing.unit@acc.gov.au](mailto:publishing.unit@acc.gov.au).

Inquiries about this publication should be addressed to:

Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001  
Tel: (03) 9290 1444  
Fax: (03) 9290 1457

Email: [AERInquiry@aer.gov.au](mailto:AERInquiry@aer.gov.au)  
AER Reference: 55426/ D15/147877

#### Amendment Record

Version	Date	Pages
01	31 August 2007	43
02	7 March 2008	51
03	31 March 2011	54
04	20 December 2012	37
04.1	16 September 2014	42
05	07 September 2015	49
05 (corrected)	1 October 2015	49

# Contents

1	Nature and Authority .....	1
1.1.	Introduction .....	1
1.2.	Authority .....	1
1.3.	Role of the <i>scheme</i> .....	1
1.4.	AER objectives .....	1
1.5.	Confidentiality .....	2
1.6.	Definitions and interpretation .....	2
1.7.	Processes for revision .....	2
1.8.	Version history and effective date .....	2
2	The service target performance incentive <i>scheme</i> .....	3
2.1.	General application of the <i>scheme</i> .....	3
2.2.	Structure of the <i>scheme</i> .....	3
2.3.	Addition, removal or variation of parameters .....	3
2.4.	Timing of performance .....	4
2.5.	Adjustments to <i>maximum allowed revenue</i> .....	4
3	Service component .....	5
3.1.	Performance incentive <i>scheme</i> .....	5
3.2.	Values for parameters .....	5
3.3.	Adjustments to <i>maximum allowed revenue</i> .....	7
3.4.	Weighting of parameters .....	7
4	Market impact component .....	9
4.1.	Performance incentive <i>scheme</i> .....	9
4.2.	Values for parameter .....	9
4.3.	Adjustments to <i>maximum allowed revenue</i> .....	10

5	Network capability component.....	12
5.1.	Network capability incentive parameter .....	12
5.2.	Requirements for the parameter.....	12
5.3.	Adjustments to <i>maximum allowed revenue</i> .....	16
5.4.	Amendment of <i>priority projects</i> .....	18
6	Information and reporting requirements .....	20
6.1.	Information gathering by the AER.....	20
6.2.	Information required in a <i>TNSP's revenue proposal</i> .....	20
6.3.	Information requested under <i>information guidelines or RINs</i> .....	20
6.4.	Annual compliance review .....	21
6.5.	Changes to data collection .....	22
	Definitions .....	23
Appendix A	: Service component–standard definitions .....	26
Appendix B	: Service component–non-standard definitions .....	34
Appendix C	: Market impact component–definition .....	36
Appendix D	: Adjustments to allowed revenue.....	39
	Overlap between regulatory control periods.....	42
	Where performance is measured over part of a <i>calendar year</i> .....	42
	Adjustment for AusNet Services' April to March financial year .....	42
Appendix E	: Service component–application.....	44
Appendix F	: Market impact component–application .....	45
Appendix G	: Definition of force majeure .....	49

# 1 Nature and Authority

## 1.1 Introduction

- (a) Consistent with the requirements of clause 6A.7.4 of the National Electricity Rules (NER), this publication sets out the Australian Energy Regulator's (AER) *service target performance incentive scheme* (the *scheme*).

## 1.2 Authority

- (a) Clause 6A.7.4 of the NER requires the AER to develop, in accordance with the *transmission consultation procedures*, a *service target performance incentive scheme* that complies with the principles in clause 6A.7.4(b) of the NER.

## 1.3 Role of the *scheme*

- (a) This *scheme*:

- (1) defines the performance incentive *scheme* parameters that specify how a transmission network service provider's (*TNSP*) network reliability and market impact is measured
- (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 target performance financial reward or penalty component of a *transmission determination*
- (4) provides guidance about the approach the AER will take in reviewing a *TNSP*'s service target performance and explain how this will affect a *TNSP*'s *maximum allowed revenue* (MAR).

- (b) The obligation of a *TNSP* to comply with this *scheme*:

- (1) is additional to any obligation imposed under any other law applying to a *TNSP*
- (2) does not derogate from such an obligation.

## 1.4 AER objectives

- (a) AER objectives for this *scheme* are that it:

- (1) contributes to the achievement of the *national electricity objective*
- (2) is consistent with the principles in clause 6A.7.4(b) of the NER

(b) promotes transparency in:

- (1) the information provided by the *TNSP* to the AER
- (2) the decision made by the AER
- (3) assists in the setting of efficient capital and operating expenditure allowances in its *transmission determinations* by balancing the incentive to reduce actual expenditure with the need to comply with regulatory obligations and maintain reliability for customers, and reduce the market impact of transmission congestion.

## 1.5 Confidentiality

(a) The AER's obligations regarding confidentiality and the disclosure of information provided to it by a *TNSP* are governed by the *Competition and Consumer Act 2010*, the National Electricity Law and the NER including the *confidentiality guidelines*. The *confidentiality guidelines* are binding on the AER and each *TNSP*.

## 1.6 Definitions and interpretation

(a) In this scheme, the words and phrases presented in italics have the meaning given to them in:

- (1) the glossary, or
- (2) if not defined in the glossary, the NER.

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

## 1.7 Processes for revision

(a) The AER may amend or replace this *scheme* from time to time in accordance with the *transmission consultation procedures*.

## 1.8 Version history and effective date

(a) 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) The *parameters* for each *TNSP* and the maximum revenue increment or decrement that a *TNSP* can receive for a given level of performance are prescribed in this *scheme*.
- (b) In each *transmission determination* the AER will approve or set the values that will apply to the *TNSP's parameters* for the *regulatory control period*.
- (c) The *maximum allowed revenue* that a *TNSP* can earn in each *regulatory year* will be adjusted according to its performance against the values included in its *transmission determination*, as assessed by the AER in accordance with this *scheme*.

### 2.2 Structure of the *scheme*

- (a) This *scheme* comprises the following three components, the:
  - (1) *service component*
  - (2) *market impact component*
  - (3) *network capability component*.
- (b) The *service component* applies to each *TNSP* subject to the *scheme*.
- (c) The *market impact component* applies to each *TNSP* subject to the *scheme*.
- (d) The *network capability component* applies to each *TNSP* subject to the *scheme* except Directlink and Murraylink.
- (e) The components set out the:
  - (1) *parameters* that apply to each *TNSP*
  - (2) requirements with which values to be attributed to the *parameters* must comply
  - (3) maximum revenue increment or decrement that a *TNSP* may receive under each component of the *scheme*.

### 2.3 Addition, removal or variation of parameters

- (a) In accordance with clause 6A.7.4 of the NER and the *transmission consultation procedures*, the AER may amend this *scheme* to:
  - (1) add, remove or vary a *parameter*
  - (2) vary the definition of a *parameter* in Appendix A, Appendix B or Appendix C.
- (b) The *parameters* and definitions can vary between *TNSPs*.

## 2.4 Timing of performance

- (a) *TNSPs* must measure their performance against the *parameters* and values applicable to it under this *scheme* on a *calendar year* basis within the *regulatory control period*. Unless stated otherwise in this *scheme*, the *calendar year* for each *TNSP* will run between 1 January and 31 December during a *regulatory control period*.
- (b) Where a *TNSP's regulatory control period*:
- (1) commences after 1 January (the beginning of the *calendar year*), the *TNSP* must measure its performance for that *calendar year* from the commencement of the *regulatory control period* until 31 December of that year
  - (2) ceases before 31 December (the end of the *calendar year*), the *TNSP* must measure its performance for that *calendar year* from 1 January until the end of the *regulatory control period*.

## 2.5 Adjustments to *maximum allowed revenue*

- (a) The maximum revenue increment or decrement that a *TNSP* can receive for a given level of performance against its *parameters* and values is set out in clauses 3.3, 4.3 and 5.3 of this *scheme*.
- (b) The *s-factor* and *financial incentive* adjustment to the *maximum allowed revenue* for each *TNSP* will be calculated and approved annually by the AER in accordance with Appendix D.
- (c) This *scheme* does not operate retrospectively. An adjustment to a *TNSP's maximum 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 *TNSP* in advance of the relevant period.



## 3 Service component

### 3.1 Performance incentive *scheme*

- (a) Appendix A contains the definitions of the following *parameters*:
- (1) unplanned circuit outage event rate
  - (2) loss of supply event frequency
  - (3) average outage duration
  - (4) proper operation of equipment.
- (b) Appendix B prescribes and defines the *parameters* applicable to individual *TNSPs* under this *service component*. Appendix B may specify that no *parameters* apply to a *TNSP* under this *service component*.
- (c) If a *TNSP* is not referred to in Appendix B, the *parameters* and standard definitions in Appendix A apply to that *TNSP* under this *service component*.

### 3.2 Values for parameters

- (a) A *TNSP* must submit, in its *revenue proposal*, proposed values for the *parameters* applicable to the *TNSP* under this *service component*. The AER must accept these proposed values if they comply with the requirements specified in this clause 3.2 and this *scheme*.
- (b) For each *parameter* applying to the *TNSP* under this *service component*, the *TNSP* must propose the following values, a:
- (1) *performance target*
  - (2) *Floor*
  - (3) *cap*.
- (c) A proposed *performance target* may take the form of a *performance deadband*.
- (d) Data used to calculate proposed values must be accurate and reliable.
- (e) The proposed *floors* and *caps* must be calculated by reference to the proposed *performance targets* and using a sound methodology. Adjustments to the proposed *performance targets* may result in adjustments to the proposed *floors* and *caps*.
- (f) Subject to clause 3.2(g) to 3.2(k) below, proposed *performance targets* must be equal to the *TNSP's* average performance history over the most recent five years. The data used to calculate the *performance target* must be consistently recorded based on the

*parameter* definitions that apply to the *TNSP* under this *service component* of the *scheme*.

- (g) The AER may require a *performance target* to be based on a different period if it is satisfied that the use of a different period is consistent with the objectives in clause 1.4 of this *scheme*.
- (h) If the performance history information described in clause 3.2(f) is not available, the AER may accept a *performance target* proposed by the *TNSP* if the AER is satisfied that the *performance target* is based on an appropriate benchmark or methodology.
- (i) Where the performance history information described in clause 3.2(f) is available, the AER may approve a *performance target* based on an alternative methodology proposed by the *TNSP* if it is satisfied that:
  - (1) the methodology is reasonable
  - (2) the *TNSP*'s performance as measured by the relevant *parameter* has been consistently very high over every *calendar year* of the previous five years
  - (3) it is unlikely that the *TNSP* will be able to improve its performance during the next *regulatory control period* (or any potential improvement would be marginal), or any further improvements are likely to compromise the *TNSP*'s other *regulatory obligations*
  - (4) where applicable, the *TNSP*'s proposed *performance targets* are not a lower threshold than the *performance targets* that applied to an identical *parameter* in the previous *regulatory control period*
  - (5) the proposed methodology is consistent with the objectives in clause 1.4 of the *scheme*.
- (j) Proposed *performance targets* may be subject to adjustment to allow for:
  - (1) statistical outliers
  - (2) the expected effects on the *TNSP*'s performance from any increases or decreases in the volume of capital works planned during the *regulatory control period* (compared with the volume of capital works undertaken during the period used to calculate the *performance target*)
  - (3) the expected material effects on the *TNSP*'s performance from any changes to the age and ratings of the assets comprising the *TNSP*'s *transmission system* during the *TNSP*'s next *regulatory control period* (compared to the age and ratings of the *TNSP*'s assets comprising the *TNSP*'s *transmission system* during the period used to calculate *performance targets*)
  - (4) *material changes* to an applicable *regulatory obligation*.

- (k) Unless a *performance deadband* is applied, *performance targets, floors and caps* for loss of supply event frequency parameters must be rounded to the nearest integer number.
- (l) The AER may reject the proposed values where it forms the opinion that they are inconsistent with the objectives listed in clause 1.4 of this *scheme*.

### 3.3 Adjustments to *maximum allowed revenue*

- (a) The maximum revenue increment or decrement that a *TNSP* may earn against its *parameters* and values under this *service component* is 1.25 per cent of the *TNSP's maximum allowed revenue* for the relevant *calendar year*.
- (b) The maximum revenue increment or decrement that a *TNSP* may earn against its *parameter* and values under this *service component* will be determined by the performance measure and the *weighting* attributed to the parameter.
- (c) The performance measure for the loss of supply event frequency and the proper operation of equipment *parameters* is the annual performance of the *TNSP* against the values of the *parameters*.
- (d) The performance measure of the unplanned outage circuit event rate and the average outage duration *parameters* will be calculated on a rolling average basis as set out in Appendix E of this *scheme*.

### 3.4 Weighting of parameters

- (a) Table 3-1 and Table 3-2 detail the *weightings* for each of the *service component parameters*, and how the *weighting* is apportioned to each of the sub-parameters. Table 3-1 provides the *weightings* for all *TNSPs* except Murraylink and Directlink, the *weightings* for which are provided in Table 3-2.
- (b) Where there is insufficient accurate and reliable data available for determining the values of a *parameter* or sub-parameters applying to a *TNSP* under this *service component*, the AER may reduce the *weighting* for that *parameter* or sub-parameter to zero. The *weightings* for other *parameters* or sub-parameters will not be altered as a result.

**Table 3-1: Parameter *weighting*, except Murraylink and Directlink**

<b>Parameter</b>	<b>Weighting (MAR %)</b>
<b>Unplanned outage circuit event rate:</b>	<b>0.75</b>
Lines event rate – fault	0.20
Transformer event rate – fault	0.20
Reactive plant event rate – fault	0.10
Lines event rate – forced	0.10
Transformer event rate – forced	0.10
Reactive plant event rate – forced	0.05
<b>Loss of supply event frequency:</b>	<b>0.30</b>
> (x) system minutes	0.15
> (y) system minutes	0.15
<b>Average outage duration</b>	<b>0.20</b>
<b>Proper operation of equipment</b>	<b>0.00</b>

**Table 3-2: Parameter *weighting*, Murraylink and Directlink**

<b>Parameter</b>	<b>Weighting (MAR %)</b>
<b>Unplanned outage circuit event rate:</b>	<b>1.25</b>
Circuit event rate – fault	0.75
Circuit event rate – forced	0.50
<b>Proper operation of equipment</b>	<b>0.00</b>

## 4 Market impact component

### 4.1 Performance incentive *scheme*

(a) Appendix C contains the definition of the market impact *parameter*. The *parameter* is applicable to all *TNSPs* subject to this *market impact component*.

### 4.2 Values for parameter

(a) Each *TNSP* is required to submit, in its revenue proposal, data in accordance with Appendix C for the preceding seven *calendar years*.

(b) A *TNSP* must submit, in its *revenue proposal*, the following proposed values for the market impact *parameter*, a:

- (1) *performance target*
- (2) *unplanned outage event limit*
- (3) dollar per dispatch interval incentive

(c) Data used to calculate the market impact *parameter* must be accurate and reliable and must be consistently recorded based on the parameter definition in Appendix C.

(d) The AER may reject a proposed *performance measure* where it considers it is inconsistent with the objectives listed in clause 1.4 of this *scheme*.

(e) The AER may substitute a *performance target* where it considers the proposed *performance target* is inconsistent with the objectives listed in clause 1.4 of this *scheme* or where a *performance target* is not provided in accordance with this *scheme*.

(f) The first time a *TNSP* commences version 5 of this *scheme*, the *performance target* for the first regulatory control period will be calculated in accordance with Appendix C and example 1 in Appendix F as follows:

- (1) Calculate the raw *performance target* which is equal to the *TNSP*'s average annual performance history against the market impact *parameter* of the median five out of seven of the preceding *calendar years*.
- (2) Calculate 17 per cent of the raw *performance target* described in clause 4.2(f)(1).
- (3) The raw annual performance history for the preceding seven calendar years is then adjusted so that the contribution of market impact parameter counts attributed to unplanned outage events in each year is limited to the number of counts calculated in clause 4.2(f)(2) (adjusted annual performance history).

- (4) the *performance target* for the regulatory control period will be the average adjusted annual performance history (described in clause 4.2(f)(3) against the market impact parameter of the median five out of seven of the preceding seven *calendar years*.
  - (5) If the *performance target* calculated in clause 4.2(f)(4) is less than 100 counts, the *performance target* will be adjusted to a *minimum performance target* of 100 counts.
- (g) If clause 4.2(f) does not apply because the TNSP has been subject to version 5 of the *scheme* during its preceding regulatory control period, the *performance target* will be calculated in accordance with Appendix C and example 2 in Appendix F as follows:
- (1) The *performance target* is the TNSP's average of the median five out of seven of the preceding seven *calendar years* of the annual *performance measure*. For clarity this is shown in example 2 at Appendix F.
  - (2) If the *performance target* calculated in clause 4.2(f)(5) is less than 100 counts, the performance target will be adjusted to a minimum performance target of 100 counts.
- (h) The *unplanned outage event limit* is 17 per cent of the performance target calculated in clauses 4.2(f)(4)-(5) or clauses 4.2(g)(1)-(2), whichever is applicable.
- (i) The *performance measure* is the raw annual performance adjusted for the *unplanned outage event limit* described in clause 4.2(h) and in accordance with Appendix C.
- (j) The dollars per dispatch interval (\$/DI) is calculated by taking one per cent of the MAR for the first year of the regulatory control period and dividing it by the *performance target* calculated in clauses 4.2(f)(4)-(5) or clause 4.2(g)(1)-(2), whichever is applicable.

### 4.3 Adjustments to *maximum allowed revenue*

- (a) A TNSP will receive a *financial incentive* which falls within a range of minus one per cent (penalty) and plus one per cent (reward) of the TNSP's *maximum allowed revenue*.
- (1) The maximum revenue increment that a TNSP may earn under this *parameter* is one per cent of the TNSP's *maximum allowed revenue* for the relevant *calendar year*.
  - (2) The maximum revenue decrement that a TNSP may earn under this *parameter* is one per cent of the TNSP's *maximum allowed revenue* for the relevant *calendar year*.

(b) The maximum revenue increment or decrement that a *TNSP* may earn against a *parameter* under this *market impact component* will be determined by the *performance measure* and the dollar per dispatch interval incentive, as set out in Appendix F of this *scheme*.

## 5 Network capability component

### 5.1 Network capability incentive parameter

(a) The network capability incentive *parameter* is applicable to all *TNSPs* subject to the *network capability component*.

### 5.2 Requirements for the parameter

(a) The network capability incentive parameter facilitates improvements in the capability of transmission assets through operational expenditure and minor capital expenditure on a *TNSP's* network which results in:

- (1) improved capability of those elements of the transmission system most important to determining spot prices, or
- (2) improved capability of the transmission system at times when Transmission Network Users place greatest value on the reliability of the transmission system.

(b) A *TNSP* must submit, in its revenue proposal, a network capability incentive parameter action plan (NCIPAP):

- (1) identifying for every transmission circuit and injection point on its network, the basis and cause for the limit for each transmission circuit and injection point.
- (2) proposing the *priority projects* to be undertaken in the regulatory control period to improve the limit of the transmission circuits and injection points listed above through operational and/or minor capital expenditure projects. This proposal must include:
  - i. the total operational and capital cost of each *priority project*
  - ii. the proposed value of the *priority project* improvement target in the limit for each *priority project*
  - iii. the current value of the limit for the transmission circuits and/or injection points which the *priority project* improvement target is seeking to improve
  - iv. the ranking of the *priority projects* in descending order based on the likely benefit of the *priority project* to customers or on wholesale market outcomes
  - v. for each *priority project*, how the achievement of the *priority project* improvement target would result in a material benefit being achieved, including an outline of the key assumptions on which this result is based



- vi. in which the average total expenditure of the *priority projects* outlined in each regulatory year must not be greater than 1 per cent of the *TNSP's* average annual *maximum allowed revenue* proposed in its revenue proposal for the *regulatory control period*.
- (c) The *priority project* must result in a material benefit.
- (d) Capital expenditure for a project will be considered to be minor capital expenditure if it has an estimated capital cost less than the cost threshold for the *proposed transmission investment* to be subject to the *regulatory investment test for transmission* in chapter 5 of the NER.
- (e) A *priority project* may address multiple limiting elements across transmission circuits and/or injection points in the *TNSP's* network.
- (f) Where a proposed *priority project* is a co-ordinated project between *TNSPs*, in the NCIPAP each *TNSP* should:
  - (1) only include the capital or operational costs it will incur in undertaking the project
  - (2) provide a copy of a written agreement between the *TNSPs* committing to undertaking the project.
- (g) The total combined capital cost of a co-ordinated project outlined in clause 5.2(f) must have an estimated capital cost less than the cost threshold for the proposed *transmission investment* to be subject to the *regulatory investment test for transmission* in chapter 5 of the NER.
- (h) The *TNSP* must consult with *AEMO* prior to submitting the NCIPAP about its review of the transmission circuits and injection points in its network, and the potential *priority project* which have been identified. This includes consultation with *AEMO* regarding:
  - (1) the potential for co-ordinated projects with other *TNSPs*
  - (2) whether achieving the proposed priority project improvement targets will result in the proposed *priority project* having a material benefit
  - (3) the classification of *priority projects* based on their likely benefit to consumers or wholesale market outcomes
  - (4) the ranking of the *priority projects*.
- (i) *AEMO* may as part of its consultation with a *TNSP* under clause 5.2(h), review the *TNSP's* assessment of the transmission circuit and injection points in their network and propose additional projects to include as *priority projects* in the *TNSP's* NCIPAP.
- (j) The *TNSP* must, as part of the consultation outlined in clause 5.2(h), provide *AEMO* with:

- (1) the limit for each transmission circuit and injection point on its network and the reason for the limit
- (2) a copy of its capital expenditure program for the upcoming regulatory control period, and
- (3) any other information (i.e. network fault and outage data) which may be reasonably necessary to understand the nature of the transmission circuit and injection point network limits, and the potential value to consumers of addressing those limits.

(k) If there is any disagreement between the *TNSP* and *AEMO* regarding :

- (1) the classification of a project as a *priority project*, or
- (2) the material benefit resulting from a *priority project* achieving its *priority project* improvement target , or
- (3) the ranking of the *priority projects*,

then the *TNSP* will include in its NCIPAP any disagreement with *AEMO* and the grounds for disagreement.

(l) In determining if the *priority project* results in a material benefit, the AER may take into the account the following:

- (1) the likely effect of the *priority project* improvement target on wholesale market outcomes, including inter-regional outcomes
- (2) the likely effect of the *priority project* improvement target in ensuring that the transmission network can meet demand at an injection point without major network augmentation or replacement
- (3) whether the *priority project* improvement target is appropriate, taking into account the forecast changes in demand at a relevant injection point
- (4) the benefits to consumers resulting from the *priority project* improvement target being achieved
- (5) the extent to which a *TNSP* would be incentivised or required to undertake such a project under the NER or any other applicable regulatory obligations
- (6) the time taken for a project to have a net positive benefit
- (7) any relevant information contained in the *TNSP*'s most recent annual planning report.

(m)The AER may amend a *priority project* improvement target proposed by the *TNSP* to ensure consistency with the objectives of the *scheme* where:

- (1) the AER considers the target would result in the *priority project* having material benefit and the *TNSP* agrees to the AER's amended improvement target; or
  - (2) the AER considers the target would result in the *priority project* having a material benefit and AEMO considers the improvement target can be achieved by the *TNSP* within the next regulatory control period.
- (n) The AER must approve the *TNSP's priority project* if it is consistent with the requirements in this clause 5.2 and the objectives of this *scheme*.
- (o) The AER must reject the *TNSP's* proposed *priority project* if it is inconsistent with the requirements in this clause 5.2 and the objectives of the *scheme*.
- (p) The AER may amend the ranking of the *priority projects* to ensure consistency with the requirements in clause 5.2 and the objectives of the *scheme*.
- (q) If 1.5 per cent of the *TNSP's* average *maximum allowed revenue* for the regulatory control period is less than 1 per cent of the *TNSP's* average *maximum allowed revenue* proposed in its revenue proposal, then the AER must reduce the number of *priority projects* until the average annual cost of the *priority projects* is less than 1.5 per cent of the *TNSP's* average annual *maximum allowed revenue* for the *regulatory control period*. In reducing the number of *priority projects*, the AER has discretion over which projects are to be removed.
- Note: This is to ensure that the *TNSP's priority projects* in the regulatory control period can be funded solely via the incentive payments provided under clause 5.3 of this *scheme*.
- (r) The cost of the proposed *priority projects* must not be included:
- (1) in the total forecast operating expenditure proposed by the *TNSP* in its revenue proposal to meet the operating expenditure objectives under clause 6A.6.6 of the *NER*, or
  - (2) in the total forecast capital expenditure proposed by the *TNSP* in its revenue proposal to meet the capital expenditure objectives under clause 6A.6.7 of the *NER*.
- (s) The *TNSP* must in each annual STPIS compliance review report on steps it has taken towards reaching the *priority project* improvement target against each project in the *NCIPAP* approved by the AER for each year or part year of the *regulatory control period*. The *TNSP* must include in this report:
- (1) the current value of limit of the transmission circuit and/or injection points which each *priority project* seeks to address
  - (2) up-to-date actual operational and capital expenditure for each *priority project*

- (3) the expected completion date for each *priority project*.
- (4) for *priority projects* which the TNSP intends to proceed with prior to the next annual STPIS compliance review, verification that the assumptions used to justify the material benefit of undertaking the *priority project* have not materially changed resulting in the *priority project* no longer having a material benefit (as defined in clause 5.3(d)(2)). This includes whether it sought verification from AEMO or another third party that the key assumptions on which the material benefit of undertaking the *priority project* is based are still valid.

### 5.3 Adjustments to *maximum allowed revenue*

- (a) For each regulatory year, the TNSP will receive an annual network capability incentive allowance equal to 1.5 times the average annual proposed cost of the *priority projects* approved by the AER under clause 5.2. This annual allowance cannot be greater than 1.5 per cent of the average annual *maximum allowed revenue* of the TNSP over the *regulatory control period*.

In the final year of the *regulatory control period*, if the TNSP does not achieve all of the *priority project* improvement targets for each of its *priority project*, then the AER may reduce the incentive allowance in accordance with clauses 5.3(b) and (c) of the *scheme*.

- (b) If the TNSP does not achieve its *priority project* improvement target for a *priority project*, then the AER may reduce the incentive payment received by the TNSP under the network capability incentive parameter, taking into account the factors in clauses 5.3(e)-(f), in the final regulatory year by:
  - (1) for a *priority project* ranked in the top 50 percentile of *priority projects*, a reduction equal to 2.5 per cent of the TNSP's *maximum allowed revenue* divided by the number of *priority projects* ranked in the top 50 percentile of *priority projects*
  - (2) for a *priority project* ranked in the bottom 50 percentile of *priority projects*, a reduction equal to 1 per cent of the TNSP's *maximum allowed revenue* divided by the number of *priority projects* ranked in the bottom 50 percentile of *priority projects*.

The maximum incentive payment amount that can be reduced in this manner for a TNSP is 3.5 per cent of its *maximum allowed revenue*. The AER's assessment of whether a reduction applies will be made in the annual STPIS compliance review following the end of the *regulatory control period*.

- (c) Where the AER reduces a TNSP's incentive payment under clause 5.3(b), the incentive payment which will apply for the final year of the *regulatory control period* will be equal to the incentive allowance calculated in accordance with clause 5.3(a) minus the total sum of the reduction imposed by the AER under clause 5.3(b).

Note: the lowest incentive payment that a *TNSP* can receive is a negative incentive payment of equal to the incentive allowance calculated in accordance with clause 5.3(a) minus 3.5 per cent of its *maximum allowed revenue* for the final year of the *regulatory control period*.

(d) A *TNSP* will be taken not to achieve its *priority project* improvement target if:

- (1) the target has been achieved through network augmentation or replacement of existing network assets with a capital cost greater than outlined in the *TNSP*'s proposal, or
- (2) despite meeting the *priority project* improvement target, there is during the regulatory control period a *material change* that results in the *priority project* no longer having a material benefit. A priority project will be considered to no longer have a material benefit where the AER assesses that:
  - i. for *priority projects* which have had their benefits quantified, the change in assumptions results in the project no longer having net positive benefits or results in a substantial extension of the payback period; or
  - ii. for *priority projects* which have not had their benefits quantified, the change in assumptions would make it likely that the project no longer provides value against the initial purposes for undertaking the project

(e) In deciding whether to reduce a *TNSP*'s incentive payment under clause 5.3(b), the AER must take into account:

- (1) whether despite the *priority project* improvement target not being achieved, there has still been an improvement in network capability resulting in a material benefit;
- (2) whether the failure to achieve the *priority project* improvement target has been due to factors or events outside the control of the *TNSP*;
- (3) whether it is likely that, due to the actions undertaken by the *TNSP*, an improvement in the capability of the identified transmission circuit or injection point will result in a material benefit in the near future;
- (4) where clause 5.3(d)(2)(i) or (ii) applies, what steps the *TNSP* took during the regulatory control period and prior to the commencement of the priority project, to verify that the priority project would still result in a material benefit, including whether it sought verification from *AEMO* or a relevant third party that undertaking a priority project would still have a material benefit, any delay that resulted as consequence of seeking verification and outcome of that approach.
- (5) where clause 5.3(d)(2)(i) or (ii) applies in respect of AusNet Services *priority projects*, whether AusNet Services obtained verification during the regulatory control period and prior to the commencement of the *priority project*, from *AEMO* that the *priority project* would still have a material benefit, and any delay as a consequence of seeking verification.

- (f) For avoidance of doubt, the AER may consider the factors outlined in clause 5.2(l) in assessing whether there is a material benefit under clause 5.3(e).
- (g) If the AER amends the number of *priority projects* approved under the network capability incentive parameter during a *TNSP's regulatory control period* under clause 5.4, then the *TNSP's* annual incentive allowance will be amended to 1.5 times the new average annual proposed cost of the *priority projects* approved over the *regulatory control period*.
- (h) The amended annual incentive allowance will apply for the remainder of the *TNSP's regulatory control period* unless the number of *priority projects* is subsequently amended by the AER.
- (i) The amended annual incentive allowance received by a *TNSP* under the network capability incentive parameter cannot be greater than 1.5 per cent of its average annual *maximum allowed revenue* over the *regulatory control period*.

#### 5.4 Amendment of *priority projects*

- (a) At the time a *TNSP* submits its annual STPIS compliance report, it may also propose to remove a *priority project* approved by the AER in accordance with clause 5.2. The AER may remove the *priority project* if:
  - (1) due to changes outside the control of the *TNSP*, the completion of the *priority project* will no longer likely result in a material benefit; and
  - (2) taking into account the objectives of the *scheme* and the circumstances, it is reasonable to remove the *priority project*.
- (b) At the time a *TNSP* submits its annual STPIS compliance report, it may also propose one or more new *priority projects*. The AER may accept a new proposed *priority project* if it considers that:
  - (1) the new *priority project* will likely result in a material benefit;
  - (2) the new *priority project* is consistent with the requirements of clause 5.2 and this *scheme*; and
  - (3) taking into account the objectives of the *scheme* and the circumstances, it is reasonable to accept the new *priority project*.

For avoidance of doubt, the AER may consider the factors outlined in clause 5.2(l) in assessing whether there is a material benefit.

- (c) The AER can only accept a new *priority project* if the average total expenditure of all the *TNSP's priority projects*, including the new *priority project*, in each regulatory year is not greater than the lesser of 1 per cent of the *TNSP's* annual average *maximum allowed*

revenue proposed in its revenue proposal for the *regulatory control period* or 1.5 per cent of the *TNSP's* annual average *maximum allowed revenue*.

(d) The AER may amend the new *priority project* improvement target proposed by the *TNSP* to ensure consistency with the objectives of the *scheme* and requirements set out in clause 5.2, where the AER considers the amended improvement target would result in a material benefit and:

- (1) the *TNSP* agrees to the AER's amended improvement target; or
- (2) AEMO considers the improvement target can be achieved by the *TNSP* within the current *regulatory control period*.

(e) The *TNSP* must consult with AEMO about the removal of any *priority projects* and/or the inclusion of any new *priority projects* prior to making any proposal to the AER under clause 5.4. This includes consultation with AEMO regarding:

- (1) whether it is appropriate to remove a *priority project* approved by the AER
- (2) whether achieving the proposed *priority project* improvement targets will result in a material benefit for any projects which are being considered as new *priority projects*
- (3) the classification of any projects which are being considered as new *priority projects* based on their likely benefit to consumers or wholesale market outcomes
- (4) the ranking of any projects which are being considered as new *priority projects*
- (5) whether there are any other potential projects which should be considered as a new *priority project*, including co-ordinated projects with another *TNSP*.

(f) The AER may amend the ranking of the *priority projects* to ensure consistency with the requirements in clause 5.2 and the objectives of the *scheme*.

(g) If there is any disagreement between the *TNSP* and AEMO as to:

- (1) whether there has been a change in circumstances outside the control of the *TNSP*, or
- (2) whether the completion of a *priority project* will no longer likely result in a material benefit, or
- (3) whether the *priority project* improvement target of a new *priority project* will likely result in a material benefit,

then the *TNSP* will include in its proposal any disagreement with AEMO and the grounds for disagreement.



## 6 Information and reporting requirements

### 6.1 Information gathering by the AER

- (a) The AER may make information requests of *TNSPs* under provisions of this *scheme*, the *information guidelines*, and regulatory information notices (RINs).
- (b) *TNSPs* must comply with requirements under the *information guidelines*, when submitting annual or ad hoc information to the AER during the course of a regulatory control period.
- (c) *TNSPs* must comply with the NER provisions relating to the *confidentiality guidelines*, cost allocation guidelines and rate of return guidelines when submitting revenue proposals.
- (d) The AER may use its information gathering powers under the National Electricity Law to issue RINs requiring that *TNSPs* provide information, and/or prepare, maintain or keep information in certain manners and forms for the purpose of enabling the AER to determine any adjustments to *TNSP* revenue for each regulatory year.

### 6.2 Information required in a *TNSP's revenue proposal*

- (a) In accordance with clause 6A.1.3 of the NER, a *TNSP* must include information on its proposed parameter values in its *revenue proposal* for the purposes of the application to the *TNSP* of any *scheme* that the AER has specified in a framework and approach paper and that applies to the relevant *regulatory control period*.
- (b) A *TNSP* must also include an explanation of how the proposed values comply with any requirements relating to them as set out in that *scheme*.

### 6.3 Information requested under *information guidelines* or *RINs*

- (a) A *TNSP* must report to the AER information under this *scheme* in accordance with the *information guidelines*, or a *RIN*, where applicable.
- (b) Information obtained under the *information guidelines* will be used to monitor and report on a *TNSP's* performance under the STPIS.<sup>1</sup>

---

<sup>1</sup> Clause 6A.17.1(d)(4), Electricity Rules.



- (c) In addition, information obtained under the information guidelines or a *RIN* will be used to determine adjustments to *TNSP* revenue for the regulatory year to which the STPIS applies.
- (d) The report provided under clause 6.3(a) must include details of responses by *TNSPs* to *force majeure events* that have been excluded from the service component and the market impact component.
- (e) For each *force majeure event*, *TNSPs* must provide information regarding the steps taken to address the outage, the length of time until the relevant equipment was restored, what additional steps could have been undertaken and the reasons why these actions were not taken.

## 6.4 Annual compliance review

- (a) The AER will review the information that a *TNSP* is required to provide annually under this *scheme*, the *information guidelines* or a *RIN*, where applicable.
- (b) In undertaking the review referred to in clause 6.4(a), the AER may assess:
  - (1) the appropriateness and accuracy of the *TNSP's* data collection, reporting and recording processes and systems
  - (2) whether the performance data reported is consistent with the *parameter definitions* and *other elements* contained in Appendix A or Appendix B, Appendix C and the *transmission determination*
  - (3) whether the *financial incentive* proposed by the *TNSP* has been calculated in accordance with this *scheme*
  - (4) whether the *financial incentive* proposed by the *TNSP* meets the objectives of this *scheme* in accordance with clause 1.4.
- (c) The AER will advise the *TNSP* of the outcome of any review conducted under clause 6.4(a).
- (d) The timetable for the review referred to in clause 6.4(a) will be decided on an annual basis by agreement between the AER and the relevant *TNSP* and will have due regard to this *scheme* and the *TNSP's* pricing obligations under the NER.
- (e) The *TNSP* must provide a list of all its prescribed assets and the date of commissioning with its annual compliance review submission.

## 6.5 Changes to data collection

- (a) A *TNSP* 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 *TNSP* to record and report on the *TNSP*'s performance against the *TNSP*'s parameters.
- (b) Any notice provided to the AER under clause 6.4(a) must include an assessment of whether the changes to the data collection or recording methods allow the *TNSP* to accurately record and report on the *TNSP*'s performance against the parameters applicable to the *TNSP*.
- (c) The AER may amend this *scheme* as a result of the *TNSP*'s new data collection methods.

# Definitions

This *scheme* uses the following definitions

<b>cap</b>	the level of performance that results in a <i>TNSP</i> receiving the maximum financial reward attributed to a <i>parameter</i> .
<b>calendar year</b>	has the meaning set out in clause 2.4.
<b>confidentiality guidelines</b>	the confidentiality guideline published by the AER which sets out how <i>TNSPs</i> are to make confidentiality claims over information submitted to the AER.
<b>financial incentive</b>	the dollar value of the revenue increment or decrement that the <i>maximum allowed revenue</i> is adjusted by in each <i>regulatory year</i> based on a <i>TNSP</i> 's performance in the preceding <i>calendar year</i> .
<b>floor</b>	the level of performance that results in a <i>TNSP</i> receiving the maximum financial penalty attributed to a <i>parameter</i> .
<b>force majeure event</b>	has the meaning set out in Appendix G.
<b>marginal value</b>	has the meaning set out in Appendix C.
<b>market impact component</b>	section 4 of this <i>scheme</i> .
<b>market systems</b>	<i>AEMO</i> 's systems for operating the <i>national electricity market</i> , and for recording and publishing data relating to the operation of the <i>national electricity market</i> .
<b>material change</b>	a change that can influence the outcomes that may otherwise result. for the network capability component it has the meaning set out in clause 5.3(d)(2) of this <i>scheme</i>
<b>maximum allowed revenue</b>	has the meaning defined in the NER
<b>minimum performance target</b>	a value of 100 will be imposed as the minimum value for a <i>performance target</i> in the <i>market impact component</i> of the <i>scheme</i>

<b>national electricity objective</b>	has the meaning set out in the National Electricity Law.
<b>National Electricity Rules or NER</b>	the rules as defined in the National Electricity Law.
<b>network capability component</b>	section 5 of this <i>scheme</i> .
<b>network outage constraint</b>	has the meaning set out in Appendix C.
<b>other elements</b>	the unit of measure, source of data, exclusions and inclusions relating to a parameter
<b>parameters</b>	the <i>performance incentive scheme parameters</i> and includes the sub-parameters, where applicable.
<b>performance deadband</b>	a <i>performance target</i> that is set over a range of values, within which a <i>TNSP</i> neither receives a financial penalty nor financial reward in the <i>regulatory year</i> .
<b>performance measure</b>	the measure of a <i>TNSP</i> 's performance against a parameter or sub-parameter of this <i>scheme</i>
<b>performance target</b>	the level of performance that results in a <i>TNSP</i> neither receiving a financial penalty nor financial reward in the <i>regulatory year</i> .
<b>priority project</b>	a project which is likely to result in a material benefit to customers or wholesale market outcomes and is approved by the AER under clause 5.2 or 5.4 of this <i>scheme</i> .
<b>RIN</b>	regulatory information notice as provided for in the National Electricity Law.
<b>service target performance incentive scheme or the scheme</b>	the <i>service target performance incentive scheme</i> defined in the NER.
<b>s-factor or service standards factor</b>	the percentage revenue increment or decrement that the <i>maximum allowed revenue</i> is adjusted by in each <i>regulatory year</i> based on a <i>TNSP</i> 's performance in the previous <i>calendar year</i> .

<b>single outage event</b>	A network outage described by the constraint set invoked by AEMO (known as a GENCONSETID in AEMO's <i>market systems</i> ) to manage an unplanned network outage on an element or asset. There may be multiple GENCONSETIDs included in the outage event, if multiple elements are affected by an initial common event, but must be specified by the AEMO market notice for the unplanned network outage.
<b>TNSP</b>	<i>transmission network service provider</i> as defined in the NER.
<b>unplanned outage event limit</b>	17 per cent of the annual performance target, where the performance target is based on the median five of seven years of performance measure.
<b>weightings</b>	the proportion of the <i>financial incentive</i> under the <i>service component</i> allocated to each of <i>parameters</i> applying to the <i>TNSP</i> under the <i>service component</i> .

# Appendix A: Service component–standard definitions

## Parameter 1      **Unplanned outage circuit event rate**

---

Sub-parameters	lines event rate – fault transformer event rate – fault reactive plant event rate – fault lines event rate – forced transformer event rate – forced reactive plant event rate – forced
----------------	---

---

Unit of measure	unplanned outage circuit event rate
-----------------	-------------------------------------

---

Source of data	<i>TNSP</i> outage reports and system
----------------	---------------------------------------

---

Definition/formula	formula:
--------------------	----------

$$\frac{\text{No. of events (defined circuits unavailable) per annum} \times 100}{\text{Total no. of defined circuits}}$$

Definition: the actual number of times defined transmission circuits are unavailable due to unplanned (fault/forced) outages divided by the total number of defined (lines/transformer/reactive) circuits.

Forced outage means the urgent and unplanned reduction in the availability of defined circuits that occurs as a necessary consequence of the identification of the actual or imminent occurrence of an event that poses, or has the potential to pose, an immediate threat to the safety of persons, hazard to any equipment or property or a threat to power system security.

Outages of sub-components of a primary piece of equipment, such as static var compensator transformers, are measured as an outage of the primary equipment type, i.e. the static var compensator.

---

Inclusions	<p>Circuits includes overhead lines, underground cables, power transformers, phase shifting transformers, static var compensators, capacitor banks, and any other primary transmission equipment essential for the successful operation of the transmission system (<i>TNSP</i> to provide lists on an annual basis). For the avoidance of doubt, the following equipment is excluded: individual circuit breakers and isolators, secondary systems including protection and control equipment and auxiliary transformers</p> <p>‘Fault outages’ to include outages from all causes including emergency events and extreme events</p>
------------	---

'Forced outages' are outages on the prescribed network where less than 24 hours notification was given to affected customers and/or AEMO (except where AEMO reschedules the outage after notification has been provided)

---

Exclusions	<p>outages on assets that are not providing prescribed transmission services</p> <p>exclude from 'fault outages' and 'forced outages' any outages shown to be primarily caused or initiated by a fault or other event on a third party system —e.g. intertrip signal, generator outage, customer installation</p> <p>exclude from 'forced outages' any planned outage that is rescheduled with less than 24 hours notice to affected customers and/or AEMO</p> <p>exclude from 'forced outages' any outages caused by a direction from emergency services or AEMO</p> <p><i>force majeure events</i></p> <p>transient interruptions (less than one minute duration)</p> <p>for the reactive plant sub-parameters only:</p> <ul style="list-style-type: none"><li>capacitor banks and reactors operating at less than 66kV</li></ul> <p>NOTE: the TNSP must provide a list to the AER each year of the events that the TNSP considers should be excluded from performance results, including reasons and how the event meets the relevant exclusion definition. The AER may reject the TNSP's exclusion claims where it considers the TNSP has provided insufficient justification.</p>
------------	--

---

## Parameter 2    Loss of supply event frequency

---

Unit of measure    number of events per annum

---

Source of data    *TNSP* outage reports and system for circuit availability

---

Definition/formula    number of events greater than x system minutes per annum  
number of events greater than y system minutes per annum

formula:

system minutes are calculated for each supply interruption by the “Load Integration Method” using the following formula:

$$\text{System minute} = \frac{\sum (\text{MWh unsupplied} \times 60)}{\text{MW peak demand}}$$

MW peak demand

where:

MWh unsupplied is the energy not supplied as determined by using NEM metering and substation load data. This data is used to estimate the profile of the load over the period of the interruption by reference to historical load data

period of the interruption starts when a loss of supply occurs and ends at the point at which supply restoration is offered to the customer. For supply outages resulting from an under-frequency event, the period of the interruption is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes

MW peak demand means the maximum amount of aggregated electricity demand recorded at entry points to the *TNSP*'s transmission network and interconnector connection points at any time previously

an interruption >y system minute also registers as a >x system minute event

interruptions affecting multiple connection points at exactly the same time are aggregated (i.e. system minutes are calculated by events rather than connection point interruptions)



the x system minute and y system minute thresholds are as follows:

<b>TNSP</b>	<b>x system minute</b>	<b>y system minute</b>
ElectraNet	0.05	0.20
Powerlink	0.05	0.40
AusNet Services	0.05	0.30
TransGrid	0.05	0.25
TasNetworks	0.10	1.00

Inclusions	<p>all unplanned outages exceeding the specified impact (that is, x minutes and y minutes)</p> <p>unplanned outages on all assets providing <i>prescribed transmission service</i></p> <p>unplanned outages from all causes including emergency events and extreme events</p> <p>forced outages on the prescribed network where notification to affected customers and/or AEMO was less than 24 hours (except where AEMO reschedules the outage after notification has been provided).</p>
Exclusions	<p>outages on assets that are not providing prescribed transmission <i>service</i></p> <p>any unplanned outages shown to be primarily caused or initiated by a fault or other event on a third party system — e.g. intertrip signal, generator outage, customer installation</p> <p>any unplanned outages caused by a direction from emergency services or AEMO</p> <p>planned outages</p> <p>transient interruptions (less than one minute duration)</p> <p>interruptions of infrequent, occasional loads (such as pumping stations) where accurate estimate of load profiles is unreliable</p> <p><i>force majeure events</i></p> <p>NOTE: the TNSP must provide a list to the AER each year of the events that the TNSP considers should be excluded from performance results, including reasons and how the event meets the relevant exclusion definition. The AER may reject the TNSP's exclusion claims where it considers the TNSP has provided insufficient justification.</p>

### Parameter 3 Average outage duration

Sub-parameter	average outage duration
Unit of measure	minutes
Source of data	TNSP outage reports and system
Definition/formula	<p>formula:</p> $\frac{\text{Aggregate duration (in minutes) of all unplanned outages with a loss of supply}}{\text{No. of events}}$ <p>definition: the cumulative summation of the outage duration time for the period, divided by the number of outage events where loss of supply occurred during the period</p> <p>the start of each outage event starts when a loss of supply occurs and ends at the point at which supply restoration is offered to the customer</p> <p>the impact of each event is capped at seven days</p>
Inclusions	<p>outages on assets that are providing prescribed transmission services</p> <p>all forced and fault outages where a loss of supply occurs</p> <p>fault outages includes outages from all causes including emergency events and extreme events</p> <p>forced outages are outages on the prescribed network where less than 24 hours notification was given to affected customers and/or AEMO (except where AEMO reschedules the outage after notification has been provided)</p>
Exclusions	<p>outages on assets that are not providing <i>prescribed transmission services</i></p> <p>any unplanned outages shown to be primarily caused or initiated by a fault or other event on a third party system — e.g. intertrip signal, generator outage, customer installation</p> <p>any unplanned outages caused by a direction from emergency services or AEMO</p> <p>planned outages</p> <p>transient interruptions (less than one minute duration)</p> <p><i>force majeure events</i></p>

NOTE: the *TNSP* must provide a list to the AER each year of the events that the *TNSP* considers should be excluded from performance results, including reasons and how the event meets the relevant exclusion definition. The AER may reject the *TNSP*'s exclusion claims where it considers the *TNSP* has provided insufficient justification.

#### Parameter 4 Proper operation of equipment

---

Sub-parameters	Failure of protection system Material failure of the Supervisory Control and Data Acquisition (SCADA) system Incorrect operational isolation of primary or secondary equipment
----------------	--

---

Unit of measure	number of events
-----------------	------------------

---

Source of data	<i>TNSP</i> outage reports <i>TNSP</i> compliance monitoring systems <i>AEMO</i> reports
----------------	--

---

Definition/formula	Failure of protection system formula: $\text{No. of protection system failure events per annum}$ where: 'protection system failure events' are those events where the relevant protection or control equipment does not operate for a fault event as designed or where the relevant equipment operates when there is no relevant fault event. Material failure of the SCADA system formula: $\text{No. of SCADA failures per annum}$ where: 'SCADA failures' are those events notified to the <i>TNSP</i> by <i>AEMO</i> on a monthly basis in the SCADA Minutes Lost report Incorrect operational isolation of primary or secondary equipment formula: $\text{No. of incorrect operational isolation events per annum}$ where: 'incorrect operational isolation events' are those events where primary or secondary equipment has not been properly isolated during scheduled or emergency maintenance, irrespective of whether an outage occurred as a result
--------------------	---

---

Inclusions	'protection equipment' includes equipment designed to monitor or protect the function of primary equipment of the transmission system. 'Primary equipment' includes overhead lines, underground cables, power transformers, phase shifting transformers, static var compensators, capacitor banks, and any other primary transmission equipment essential for the successful operation of the transmission system
------------	---

'protection system failure events' includes the failure of one piece of protection or control equipment where there is a backup or duplicate protection or control equipment for the relevant element

---

Exclusions	<p>protection or control equipment for those assets that are not providing prescribed transmission services</p> <p>The failure of primary equipment, such as circuit breakers, to respond to signals sent by protection or control equipment</p> <p><i>force majeure events</i></p> <p>NOTE: the <i>TNSP</i> must provide a list to the AER each year of the events that the <i>TNSP</i> considers should be excluded from performance results, including reasons and how the event meets the relevant exclusion definition. The AER may reject the <i>TNSP's</i> exclusion claims where it considers the <i>TNSP</i> has provided insufficient justification.</p>
------------	--

# Appendix B: Service component–non-standard definitions

## Part 1—Directlink

### Parameter 1 Unplanned outage circuit event rate

---

The standard definition applies with the following modifications:

1. Replace the sub-parameters in the standard definition with the following sub-parameters:

    circuit event rate – fault

    circuit event rate – forced

### Parameter 2 Loss of supply event frequency

---

This parameter does not apply to Directlink.

### Parameter 3 Average outage duration

---

This parameter does not apply to Directlink.

### Parameter 4 Proper operation of equipment

---

The standard definition applies.

---

## Part 2—Murraylink

### Parameter 1 Unplanned outage circuit event rate

---

The standard definition applies with the following modifications:

1. Replace the sub-parameters in the standard definition with the following sub-parameters:

    circuit event rate – fault

    circuit event rate – forced

### Parameter 2 Loss of supply event frequency

---

This parameter does not apply to Murraylink.

### Parameter 3 Average outage duration

---

This parameter does not apply to Murraylink.

### Parameter 4 Proper operation of equipment

---

The standard definition applies.

---

## Appendix C: Market impact component—definition

**Unit of measure:** Number of dispatch intervals

---

**Definition:** The market impact parameter is the number of *dispatch intervals* where an outage on the TNSP's prescribed transmission network results in a *network outage constraint* with a *marginal value* greater than \$10/MWh.

Where:

*dispatch interval* (DI) has the meaning set out in the NER.

*network outage constraint* is the change to the physical capability of the transmission network following the outage of transmission network equipment from service as identified by and recorded in the market systems.

the *marginal value* is published in the *market systems* and is an indication of the change, at the margin, in the cost of producing electricity sufficient to meet demand brought about by a particular *network outage constraint*.

Where there is more than one *network outage constraint* with a *marginal value* (MV) greater than \$10/MWh in one *dispatch interval*, the market impact parameter counts the *dispatch interval* for each *network outage constraint* (that is, the same dispatch interval may be counted more than once).

To measure a TNSP's performance against this market impact parameter, the AER will allocate each affected dispatch interval to the TNSP responsible for the constraint using:

1. AEMO's Market Information on Planned Network Outages, and based on information provided by the TNSPs as required under clause 3.7A of the NER, or
2. AEMO's Network Outage Schedule, or
3. the constraint and constraint set descriptor, or
4. AEMO's market management system (MMS) data or other information provided by AEMO.
5. Where the information described in (1), (2), (3) or (4) indicates that more than one TNSP is responsible for a single *network outage constraint*, the number of *dispatch intervals* is apportioned equally between the TNSPs.

---

### Exclusions

The TNSP must provide a list to the AER each year of the events that it considers should be excluded from performance results, including reasons for how the event meets the relevant exclusion definition. If the AER is satisfied an event is of the following kind, it shall be an *exclusion*:



1. force majeure events
2. network constraints invoked to manage the reclassification of *non-credible contingency events* to *credible contingency events* as per sections 4.2.3A and 4.2.3B of the NER
3. any outage of an asset that is providing *prescribed transmission services* shown to be primarily caused or initiated by a fault or other event on a third party asset that is not providing *prescribed transmission services*— e.g. intertrip signal, generator outage, customer installation.
- 3A. any planned outage of an asset that is providing *prescribed transmission services* shown to be primarily caused or initiated for the connection of a new asset that is not providing *prescribed transmission services* as requested by a third-party or by AEMO.
4. outages on assets that are not providing *prescribed transmission services*
5. outages for personal safety that are not related to the activity of owning or operating a *transmission network*
6. outages that are only for the purpose of assisting with operational security, for example where a lower voltage parallel circuit is taken out of service to assist with transfers across an interconnector
7. network constraints related to network support services in accordance with clause 5.4 AA of the NER
8. dispatch intervals that are affected by:
  - a. a manifestly incorrect input to the *dispatch algorithm* (as determined by AEMO under clause 3.9.2B of the NER)
  - b. a constraint applied by AEMO that does not accurately reflect or is otherwise inconsistent with the network capability that the TNSP advised AEMO
  - c. a scheduling error
  - d. *mandatory restrictions* under clause 3.12A of the NER
  - e. AEMO declaring the *spot market* suspended under clause 3.14.3 of the NER, or
  - f. an *administered price cap* under clause 3.14.2 of the NER
9. network constraints invoked to reflect a temporary network reconfiguration implemented by a TNSP to manage an outage where the following conditions are met:
  - a. The network reconfiguration may result in lower capability than during system normal but must be higher than what the capability of the network would have otherwise been during the outage.

- b. The *TNSP* must notify the AER at least 30 business days before the commencement of an outage to put the temporary reconfiguration in place. Theoretical proposals are not allowed.
  - i. The AER will provide a confirmation within 30 business days of the *TNSP*'s exclusion application.
  - ii. If new material subsequently comes to light that the AER was not made aware of at the time of its assessment, the AER may revoke its decision to exclude the counts associated with the temporary network configuration during the review of the *TNSP*'s annual performance.
- 10. Network constraints that are invoked by *AEMO* prior to the commencement of a planned network outage for the purpose of transitioning of one level of network flow to another to reduce the impact of that outage (that is, ramping constraints).
- 11. Transmission connection agreements where a lower service standard has been negotiated giving the *TNSP* the right to disrupt service under certain network conditions where the constraint only affects the parties subject to the agreement.
- 12. Internetwork power system tests for *priority projects* and in accordance with *NER 5.7.7*.

The AER may reject the *TNSP*'s exclusion claims where it considers the *TNSP* has provided insufficient justification

---

## Appendix D: Adjustments to allowed revenue

### Calculating allowed revenue

The *maximum allowed revenue* (MAR) for each *regulatory year* of a *regulatory control period* is calculated in accordance with the NER and the *TNSP's transmission determination*. The MAR includes any *financial incentive* adjustments resulting from the *service target performance incentive scheme* in the previous *calendar years*.

The MAR is calculated as follows:

$$\text{MAR}_t = \text{AR}_t + \text{financial incentive}_{ct} + \text{other adjustments}$$

where: AR = allowed revenue

$$\text{AR}_t = \text{AR}_{t-1} * (1 + \Delta \text{CPI}) * (1 - X_t)$$

$\Delta \text{CPI}$  is the annual percentage change in the most recently published *Consumer Price Index All Groups, Weighted Average of Eight Capital Cities* as specified in the *TNSP's transmission determination*

$X_t$  is the X factor specified in the *TNSP's transmission determination*.

A *TNSP's financial incentive* (see below) within a *calendar year* of a *regulatory control period* will impact upon the *TNSP's MAR* in the immediately following financial year. As such, a six month lag<sup>2</sup> exists between when a *TNSP's performance* is measured, and when the *financial incentive* adjustment is made to the *TNSP's MAR*.

### The financial incentive

The *financial incentive* is calculated as follows:

$$\text{financial incentive}_t = \left( \frac{(\text{AR}_{t-1} + \text{AR}_{t-2})}{2} \times S_{ct} \right)$$

where: AR = allowed revenue

S = total *s-factor*

t = regulatory year

---

<sup>2</sup> AusNet Services is only subject to a three month lag.

$c_t = \text{calendar year}$

The MAR values used to establish transmission charges each relevant financial year will be used to determine the *financial incentive*.

### **The service standards factors**

The *s-factor* for each service component *parameter* is calculated by comparing a *TNSP's* performance against its *parameters* and the values included in the *TNSP's transmission determination* within a *calendar year*.

See Appendix E for the calculation of the performance for average circuit outage rate and average outage duration parameters.

The market impact *parameter s-factor* is calculated by comparing the *TNSP's performance measure* against its *performance target*.

See Appendix F for the calculation of *performance measure* and *performance target*.

The network capability *parameter s-factor* is calculated in accordance with clause 5.3 of this *scheme*.

The maximum *s-factor* possible for each *parameter* applying to the *TNSP* under the *service component* of this *scheme* is the *weighting* of that *parameter*.

The maximum *s-factor* possible for the *parameter* applying to a *TNSP* under the *market impact component* of this *scheme* is the maximum revenue increment specified in clause 4.3.

The total *s-factor* is the sum of the *s-factors* for each *parameter*. The total *s-factor* result cannot exceed the sum of the maximum revenue increment or decrement that the *TNSP* may earn under the *service component*, the *market impact component* and the *network capability component*.

## Worked example

Assume that, between 1 January and 31 December 2017, a TNSP achieved an *s-factor* of – 0.1 per cent under the service component, 0.9 per cent under the market impact component and 1.5 per cent under the *network capability component*. The total *s-factor* achieved by the TNSP is 2.30 per cent.

Year	Total <i>s-factor</i>	AR
1 July 2016		\$100m
1 January 2017	2.3%	
1 July 2017		\$110m
1 January 2018		

## Calculating the *financial incentive*

The *financial incentive* for a total *s-factor* of 2.3 per cent is \$2.42 million as shown below

$$\begin{aligned} \text{financial incentive}_{2017} &= \left( \frac{(AR_{2017-18} + AR_{2016-17})}{2} \times S_{2017} \right) \\ &= \left( \frac{(110 + 100)}{2} \times 2.3\% \right) \\ &= \$2.42\text{m} \end{aligned}$$

## Calculating the allowed revenue

The *financial incentive* of \$2.42 million for the 2017 *calendar year performance* would not affect the AR until the financial year beginning 1 July 2018. Assuming no other adjustments were made in accordance with clauses 6A.3.1 and 6A.3.2 of the NER and the AR for the 2018–19 period is \$120 million, the MAR for the 2018–19 *regulatory year* would be:

$$\begin{aligned} \text{MAR}_{2018-19} &= \text{AR}_{2018-19} + \text{financial incentive}_{2017} \\ &= \$120\text{m} + \$2.42\text{m} \\ &= \$122.42\text{m} \end{aligned}$$

## Adjustments to the *financial incentive* formula

The *financial incentive* formula will be adjusted by the AER in the following circumstances.

## Overlap between regulatory control periods

As noted above, a *TNSP's* performance in a *calendar year* will not affect the MAR until the financial year commencing on 1 July in the following year.<sup>3</sup> This means that a *TNSP's* performance in the last year of its *regulatory control period* will affect its MAR in the following *regulatory control period*.

If, for example, a *TNSP* has a *regulatory control period* of five years, which runs between 1 July 2015 and 30 June 2020, its performance in the 2019 *calendar year* will affect its MAR in the financial year of the next *regulatory control period* (that is, 2020–21). The *TNSP's* MAR in the second financial year of the next *regulatory control period* (that is 2021–22) will be affected by its performance in the final six months of the last *regulatory control period* and the first six months of the next *regulatory control period*. The MAR in this financial year will be calculated by applying the following formula:

$$\text{MAR}_{2021-220} = \text{AR}_{2021-22} + \text{financial incentive}_{2020}$$

Where:

$$\text{financial incentive}_{2020} = \left( \frac{\text{AR}_{2019-20}}{2} \times S_{1\text{Jan}2020-30\text{Jun}2020} \right) + \left( \frac{\text{AR}_{2020-21}}{2} \times S_{1\text{Jul}2020-31\text{Dec}2020} \right)$$

## Where performance is measured over part of a *calendar year*

Where a *TNSP's* performance has not been measured under the *scheme* for a full *calendar year*, the AER will make a pro-rata adjustment to the AR to apply to the *s-factor* to calculate the *financial incentive*. For example this adjustment may be made where a new *TNSP* becomes subject to the *scheme* at the commencement of a financial year.

## Adjustment for AusNet Services' April to March financial year

AusNet Services' *regulatory year* runs from 1 April to 31 March in the following year to correspond with the Singapore financial year. To account for this, there will a three-month lag between when AusNet Services' performance is measured, and when the *financial incentive* adjustment is made to AusNet Services' MAR. The *financial incentive* for AusNet Services is calculated as follows:

---

<sup>3</sup> AusNet Services financial year commences on 1 April

$$\text{financial incentive}_{ct} = \left( \left( AR_{t-2} \times \frac{3}{12} \right) + \left( AR_{t-1} \times \frac{9}{12} \right) \right) \times S_{ct}$$

## Appendix E : Service component–application

The value of the performance measure (PM) for the unplanned outage circuit event rate *parameter*, and the average outage duration *parameter* is calculated based on the *TNSP's* average performance over a rolling two *calendar year* period. Note that the PM may include performance in periods outside of the current *regulatory control period*.

### Formula for the unplanned outage circuit event rate *parameter*:

$$\text{PM (t)} = \frac{(P_t + P_{t-1})}{2}$$

Where:

t = year

PM = performance measure

P =  $\frac{\text{No. of events (defined circuits unavailable) per annum} \times 100\%}{\text{Total no. of defined circuits}}$

### Formula for the average outage duration *parameter*:

$$\text{PM (t)} = \frac{(P_t + P_{t-1})}{2}$$

Where:

t = year

PM = performance measure

P =  $\frac{\text{Aggregate duration (in minutes) of all unplanned outages with a loss of supply}}{\text{No. of events}}$



## Appendix F : Market impact component–application

The value of the *performance target* (T) for the market impact *parameter* is set in the revenue determination and is based on the TNSP's average performance over the most recent seven calendar years, excluding the maximum and the minimum *performance measure*.

The *minimum performance target* of 100 counts is applied to the *performance target* (T) where the *performance target* is less than 100 counts.

The value of the *performance measure* (M) is the TNSPs annual performance adjusted by the *unplanned outage event limit*. Each unplanned outage event will be limited to a count of no more than 17 per cent of the *performance target* (T). The mechanism for calculating the *unplanned outage event limit* depends on whether the TNSP has had the STPIS version 5 applied to it in previous regulatory periods. This is shown in two examples.

### Example 1: Setting the target in the revenue determination for the first time

This example shows how the target is set for a TNSP which is transitioning to STPIS version 5 at the beginning of regulatory control period 2 (RP2). This TNSP was previously operating under a different STPIS version in regulatory control period 0 (RP0) and regulatory control period 1 (RP1). This calculation is performed under STPIS version 5 clause 4.2(g). Assume that the MAR in the first year of the regulatory control period R2 is \$500 million.

In its proposal for RP2 the TNSP would submit the following:

- Performance measure data: 4 years for RP1 and the last 3 years of data for RP0
- Performance target of 690 counts
- Unplanned outage event limit of 123 counts to calculate the target clause 4.2(f)(2) (i.e. for the historical data)
- Unplanned outage event limit for RP2 is 117 clause 4.2(h)
- Dollar per dispatch interval of \$7,264/DI

Table 6-1 shows the following process for calculating the target, unplanned outage event limit and \$/DI for RP2.

**Table 6-1 Method for setting the target–transition to STPIS version 5**

Regulatory period (RP)	year	Raw performance count			Capped unplanned count	Adjusted performance count
		Planned	Unplanned	Total (Planned + Unplanned)	Min of Raw Unplanned or 0.17x(M)	planned + capped unplanned
(RP)		(a)	(b)	(a)+(b)	(d)	(e)
RP0	1	800	0	800	0	800
RP0	2	800	50	850	50	850
RP0	3	900	15	915	15	915
RP1	4	10	55	65	55	65
RP1	5	50	10	60	10	60
RP1	6	1000	-	1000	-	1000
RP1	7	700	<b>300</b>	<b>1000</b>	<b>123</b>	<b>823</b>
Max				1000		1000
Min				60		60
Average of 5 median				$\frac{800+1000+915+65+850}{5}$ [M]		$\frac{800+823+915+65+850}{5}$ [T]

The calculation shown at (M) is the raw *performance target*, referred to in clause 4.2(f)(1).

The adjustment for unplanned outage counts is shown in column (d) is the process described in clause 4.2(f)(1)-(3).

The **unplanned outage event limit** is 17 per cent of (M) which, in this example, is  $(0.17 \times 726 = 123)$ , where (M) is the raw performance target. In year 7 the raw unplanned outage count was 300 (Table 6-1, column (b)). This means an adjustment for the unplanned outage count in year 7 so it is limited to 123 (column (d)). No other unplanned outages are adjusted because they are all below 123.

The **performance target** for RP2 is 690 counts as shown at item [T] and is the median five values of the adjusted performance in column (e). This is the process described in clause 4.2(f)(3)-(5).

As set out in clause 4.2(j), the **dollars per dispatch interval** (\$/DI) is calculated by taking one per cent of the MAR of the first year of the regulatory control period and dividing it by the performance target calculated in clause 4.2(f)(4)-(5). In this example it is  $0.01 \times \$500 \text{ million} / 690 \text{ DIs} = \$7,246/\text{DI}$ .

### Example 2: Setting the target in the revenue determination

This example shows how the target is set for a TNSP which has operated under STPIS version 5 during its current regulatory period (regulatory control period 2) and the information it would be required to submit for its revenue proposal for RP03. This example shows how the annual performance measure is calculated under STPIS version 5, and then how the

target is set for the next regulatory control period (RP3) based on the annual performance measure. The calculations for the target are performed under STPIS version 5 clause 4.2(g).

In its proposal for RP3 the TNSP would submit the following:

- Performance measure data: 4 years for RP2 and the last 3 years of data for RP1
- Performance target of 585 counts
- Unplanned outage event limit of 100 counts
- Dollar per dispatch interval of \$8,547/DI

**Table 6-2 Calculating the annual performance measure**

Regulatory period (RP)		Target set in RCP	Raw performance count			Capped unplanned count	Adjusted performance count
(RP)	year	Target (T)	Planned (a)	Unplanned (b)	Total (Planned + Unplanned) (a)+(b)	Min of Raw Unplanned or 0.17x(M)	(a)+(d) (e)
RP1	5		50	10	60	10	60
RP1	6		1000	-	<del>1000</del>	1000	<del>1000</del>
RP1	7		700	300	1000	<b>123</b>	823
RP2	8	690	900	15	915	15	915
RP2	9	690	10	120	130	<b>117</b>	127
RP2	10	690	50	10	<del>60</del>	10	<del>60</del>
RP2	11	690	1000	-	1000	-	1000
RP2 <sup>4</sup>	12	690	10	50	60	50	60
Max					1000		1000
Min					60		60
Average of median	5				$\frac{60+1000+915+130+1000}{5}$ [M]		$\frac{60+823+915+127+1000}{5}$ [T]

The **unplanned outage event limit** proposed for RP3 is 17 per cent of unplanned outages in RP2  $0.17 \times [T] = 0.17 \times 585 = 100$  counts (clause 4.2(h)). The unplanned outage limit applicable during RP2 was 117 and was applied in year 9 where the raw performance count of 120 was limited to 117 counts.

The **performance target** for RP3 is the average of the five median values of the seven years, after unplanned outage caps and the minimum target floor have been applied (note the minimum target floor is not applicable in this example), that is, of the values in column (e) in Table 6-2. Target RP3 = average (823, 915, 127, 1000, 60) = 585 counts (clause 4.2(g)).

<sup>4</sup> Not included in the calculation as this year will not be complete at the time that the targets are determined

### Example 3: Calculating the s-factor during the annual compliance review

Using the results from Table 6-1 and Table 6-2, the following s-factor and financial incentive (clause 4.2(j)) would have been paid out or recovered during the RP02 period on an annual basis at the completion of the annual compliance review (clause 6.4).

**Table 6-3 Annual s-factor and financial incentive**

Regulatory period	year	Target	Adjusted performance count	Annual performance (T)-(e)	Financial incentive \$7264 x (P)	s-factor % MAR
(RP)	t	(T)	(e)	(P)	\$	%
RP2	8	690	915	-225	-1,634,400	-0.3269
RP2	9	690	127	563	4,089,632	0.8179
RP2	10	690	60	630	4,576,320	0.9153
RP2	11	690	1000	-310	-2,251,840	-0.4504
RP2	12	690	60	630	4,576,320	0.9153

## Appendix G: Definition of force majeure

For the purpose of applying the *service target performance incentive scheme*, *force majeure* event means any event, act or circumstance or combination of events, acts and circumstances which (despite the observance of good electricity industry practice) is beyond the reasonable control of the part affected by any such event, which may include, without limitation, the following:

- fire, lightning, explosion, flood, earthquake, storm, cyclone, action of the elements, riots, civil commotion, malicious damage, natural disaster, sabotage, act of a public enemy, act of God, war (declared or undeclared), blockage, revolution, radioactive contamination, toxic or dangerous chemical contamination or force of nature
- action or inaction by a court, government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain same)
- strikes, lockouts, industrial and/or labour disputes and/or difficulties, work bans, blockades or picketing
- acts or omissions (other than failure to pay money) of a party other than the TNSP, which party either is connected to or uses the high voltage grid or is directly connected to or uses a system for the supply of electricity that in turn is connected to the high voltage grid. Where those acts or omissions affect the ability of the TNSP to perform its obligations under the service standard by virtue of that direct or indirect connection to or use of the high voltage grid.

In determining whether to accept or reject a force majeure exclusion claim, the AER will consider the following:

- was the event unforeseeable and its impact extraordinary, uncontrollable and not manageable?
- does the event occur frequently? If so, how did the impact of the particular event differ?
- could the TNSP, in practice, have prevented the impact (not necessarily the event itself)?
- could the TNSP have effectively reduced the impact of the event by adopting better practices?

The AER may reject a force majeure exclusion claim where it considers that the *TNSP* has provided insufficient justification that force majeure applies to the event.