

**Proposed (draft) transmission
pricing methodology guidelines**

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AMENDMENT RECORD

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1. Nature and authority

1.1 Introduction

These proposed *guidelines* specify or clarify a number of aspects in relation to the preparation of a *Transmission Network Service Provider's (TNSP)* proposed *pricing methodology* to be submitted to the *Australian Energy Regulator (AER)*.

1.2 Authority

Clause 6A.25.1(a) of the *National Electricity Rules* requires the *AER* to develop, in accordance with the *transmission consultation procedures*, guidelines relating to the preparation of a proposed *pricing methodology* by a *TNSP*.

1.3 Role of these guidelines

These *guidelines* specify or clarify:

- (a) the information that is to accompany a proposed *pricing methodology*;
- (b) permitted pricing structures for the recovery of the locational component of providing *prescribed TUOS services*;
- (c) permitted postage stamp pricing structures for *prescribed common transmission services* and the recovery of the adjusted non-locational component of providing *prescribed TUOS services*;
- (d) the types of *transmission system assets* that are *directly attributable* to each *category of prescribed transmission services*; and
- (e) those parts of a proposed *pricing methodology*, or the information accompanying it that will not be publicly disclosed without the consent of the *TNSP*.

1.4 Relationship between these guidelines and the National Electricity Rules

- (a) Each *TNSP* must develop a proposed *pricing methodology* for submission to the *AER* in accordance with the requirements of these *guidelines* and the *National Electricity Rules*.
- (b) The *pricing methodology* approved by the *AER* must be used by the relevant *TNSP*, in conjunction with the *National Electricity Rules*, for the purpose of determining transmission prices in each *regulatory year* of a *regulatory control period*.

- (c) Clause 6A.17.1 of the *National Electricity Rules* provides for information to be provided by the *TNSP* to the *AER* which the *AER* may use to monitor, report on and enforce compliance with a *transmission determination*, including a *TNSP's pricing methodology*. A failure by a *TNSP* to comply with its *pricing methodology* may constitute a breach of clause 6A.24.1(d) of the *National Electricity Rules*.

1.5 Confidentiality

The *AER's* obligations regarding confidentiality and the disclosure of information provided to it by a *TNSP* are governed by the *Trade Practices Act 1974*, the *National Electricity Law* and the *National Electricity Rules*.

1.6 Definitions and interpretation

- (a) In these *guidelines* 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 *National Electricity Rules*.
- (b) Explanations in these *guidelines* about why certain information is required are provided for guidance only.

1.7 Processes for revision

The *AER* may amend or replace the *guidelines* from time to time in accordance with clause 6A.25.1(b)(2) of the *National Electricity Rules*.

1.8 Version history and effective date

A version number and an effective date of issue will identify every version of these *guidelines*.

2. Pricing methodology guidelines

2.1 Information requirements

A *TNSP*'s proposed *pricing methodology* must contain the following information:

- (a) Whether the *TNSP* is the sole provider of *prescribed transmission services* within its *region* or whether there are multiple *TNSPs* providing *prescribed transmission services*.
- (b) If there are multiple *TNSPs* providing *prescribed transmission services* within its *region* the *TNSP* should detail whether it:
 - (1) has been appointed as the *Co-ordinating Network Service Provider* for a *region* under clause 6A.29.1(a) of the *National Electricity Rules* and is therefore responsible for the allocation of the *AARR* within the *region*; or
 - (2) is an appointing provider for the purposes of clause 6A.29.1(a) of the *National Electricity Rules* and if so, it should nominate the *Co-ordinating Network Service Provider* and identify the parts of its proposed *pricing methodology* which will be dealt with by the *Co-ordinating Network Service Provider*.
- (c) Details of how the *AARR* has been derived including an explanation of how the operating and maintenance costs subtracted from the *maximum allowed revenue* in accordance with clause 6A.22.1 of the *National Electricity Rules* have been determined and how they will be recovered via transmission prices.
- (d) Details of how the *AARR* will be allocated to derive the *ASRR* for *each category of prescribed transmission service*, including:
 - (1) how the *attributable cost shares* for each *category of prescribed transmission service* will be calculated in accordance with clause 6A.22.3 of the *National Electricity Rules*, including hypothetical worked examples; and
 - (2) how the priority ordering approach outlined in clause 6A.23.2(d) of the *National Electricity Rules* will be applied, including a hypothetical worked example.
- (e) Details of how the *ASRR* for each *category of prescribed transmission service* will be allocated to each *transmission connection point*, including:
 - (1) how the *attributable connection point cost share* for both *prescribed entry services* and *prescribed exit services* will be calculated in accordance with clause 6A.22.4 of the *National Electricity Rules*, including hypothetical worked examples;

- (2) how the locational and pre-adjusted non-locational shares of *prescribed TUOS services* will be allocated in accordance with 6A.23.3(d) of the *National Electricity Rules*;
 - (3) how the locational and adjusted non-locational components of *prescribed TUOS services* will be determined and allocated to *connection points* in accordance with clause 6A.23.3(c) of the *National Electricity Rules*.
- (f) In relation to price structures:
- (1) confirm that separate prices will be developed for each *category of prescribed transmission service*;
 - (2) confirm that the prices for *prescribed entry services* and *prescribed exit services* will be a fixed annual amount, and describe how these amounts will be calculated;
 - (3) outline how the pricing structure for the recovery of the locational component of *prescribed TUOS services* complies with these *guidelines* and clauses 6A.23.4(e)-(i) of the *National Electricity Rules*;
 - (4) outline how the pricing structure for the recovery of the adjusted non-locational component of *prescribed TUOS services* complies with these *guidelines* and clause 6A.23.4(j) of the *National Electricity Rules*; and
 - (5) outline how the pricing structure for the recovery of *prescribed common transmission services* complies with these *guidelines* and clause 6A.23.4(d) of the *National Electricity Rules*.
- (g) A statement of how the *pricing methodology* gives effect to and is consistent with, the *pricing principles for prescribed transmission services* including an explanation of how any alternative pricing structure which the *TNSP* wishes to apply meets the requirements of clause 6A.23.4 of the *National Electricity Rules*.
- (h) Information relating to any prudent discounts for *prescribed transmission services* and how those discounts are proposed to be recovered from *Transmission Network Users* in accordance with clause 6A.26 of the *National Electricity Rules*.
- (i) Details of billing arrangements with *Transmission Network Users* and transfers between *TNSPs* conducted in accordance with clause 6A.27 of the *National Electricity Rules*.
- (j) Details of the nature of *prudential requirements* as outlined in clause 6A.28 of the *National Electricity Rules* and how any capital contributions will be taken into account in determining a transmission network users' prices for *prescribed transmission services*.
- (k) If a *TNSP* has, in accordance with section 2.5 of these *guidelines*, provided the *AER* with a confidential version of its proposed *pricing methodology*, the non-confidential version of the proposed *pricing methodology* must outline the area or areas where the *TNSP* is making a claim for confidentiality and why.

- (l) Details of any derogation in accordance with chapter 9 of the *National Electricity Rules*.
- (m) Details of any transitional arrangements which apply in accordance with chapter 11 of the *National Electricity Rules*.
- (n) The period over which the proposed *pricing methodology* will apply.
- (o) A description of any differences between the *pricing methodology* applied during the current *regulatory control period* and that proposed for the next *regulatory control period*.
- (p) Details of how the *TNSP* intends to maintain records of the application of the *pricing methodology* in order for the *AER* to monitor, report on and enforce the *pricing methodology* in accordance with clause 6A.17.1 of the *National Electricity Rules*; and
- (q) Details of how the *TNSP* intends to monitor its compliance with its approved *pricing methodology*, the *pricing principles for prescribed transmission services* and more broadly Part J of the *National Electricity Rules*.

2.2 Permitted (locational) pricing structures

- (a) Prices for the recovery of the locational component of *prescribed TUOS services* must be based on demand at times of greatest utilisation of the *transmission network* and for which network investment is most likely to be contemplated in accordance with clause 6A.23.4(e) of the *National Electricity Rules*.
- (b) Prices calculated in accordance with clause 6A.23.4(e) of the *National Electricity Rules* must be applied to a measure of demand of the network to derive a charge for the locational component of *prescribed TUOS services*.
- (c) The following measures of demand, when applied to a price calculated in accordance with clauses 6A.23.3(c)(1) and 6A.23.4(e), are permitted pricing structures:
 - (1) The higher of the *contracted agreed maximum demand* as negotiated in a *transmission customer's* connection agreement or the *transmission customer's* actual maximum demand in the previous *financial year* expressed as \$/MW/day; or
 - (2) Demand measured as the average of the *transmission customer's maximum demand* recorded at a *connection point* on the 10 weekdays when system demand is highest between the hours of 07:00 and 23:00 in the local time zone during the previous *financial year* expressed as \$/MW/day.
- (d) If historical data is unavailable for a *connection point* for use in section 2.2(c) of these proposed *guidelines*, forecast demand must be used instead.

- (e) The *contracted agreed maximum demand* must only be used for the calculation of the locational component of *prescribed TUOS services* pricing structure if the *transmission customer's* connection agreement or other enforceable instrument governing the terms of connection of the *transmission customer*:
 - (1) nominates a fixed maximum demand for the *connection point*; and
 - (2) specifies penalties for exceeding the *contracted agreed maximum demand*.
- (f) A *TNSP* (or *Co-ordinating Network Service Provider*) may propose alternative pricing structures for the recovery of the locational component of *prescribed TUOS services* which it considers give effect to, and are consistent with the *pricing principles for prescribed transmission services* in the *National Electricity Rules*.
- (g) If a *TNSP* (or *Co-ordinating Network Service Provider*) proposes an alternative pricing structure for the recovery of the locational component of *prescribed TUOS services* it must clearly demonstrate to the *AER* that the alternative pricing structure:
 - (1) gives effect to, and is consistent with the *pricing principles for prescribed transmission services* in the *National Electricity Rules*;
 - (2) improves on the permitted pricing structures outlined in section 2.2(c) of these *guidelines*; and
 - (3) contributes to the NEM objective.

2.3 Permitted (postage stamp) pricing structures

- (a) Prices for *prescribed common transmission services* and the recovery of the adjusted non-locational component of *prescribed TUOS services* are to be set on a *postage stamp* basis in accordance with clause 6A.23.4(d) and clause 6A.23.4(j) of the *National Electricity Rules* respectively.
- (b) Each *financial year* a *TNSP* (or *Co-ordinating Network Service Provider*) must determine the following two prices for both *prescribed common transmission services* and the adjusted non-locational component of *prescribed TUOS services*:
 - (1) An *energy based price* that is a price per unit of historical or actual metered energy at a *connection point*; and
 - (2) A *contracted agreed maximum demand* price that is a price per unit of contracted capacity at a *connection point*.
- (c) Either the *energy based price* or the *contracted agreed maximum demand* price applies at a *connection point* except for those *connection points* where a transmission customer has negotiated reduced charges for *prescribed common transmission services* or the adjusted non-locational component of *prescribed*

TUOS services in accordance with clause 6A.26.1 of the *National Electricity Rules*.

- (d) The *energy based price* and the *contracted agreed maximum demand price* referred to in section 2.3(b) above must be determined so that:
 - (1) a *Transmission Customer* with a load factor in relation to its *connection point* equal to the median load factor for *connection points* with *Transmission Customers* connected to the transmission network in the *region* or *regions* is indifferent between the use of the *energy based price* and the *contracted agreed maximum demand price*; and
 - (2) the total amount to be recovered by the *prescribed common transmission services* and the adjusted non-locational component of *prescribed TUOS services* does not exceed the *ASRR* for each *category of prescribed transmission service*.
- (e) The charge for *prescribed common transmission services* and the adjusted non-locational component of *prescribed TUOS services* using the *energy based price* for a *billing period* in a *financial year* for each *connection point* must be calculated by:
 - (1) multiplying the *energy based price* by the metered energy offtake at that *connection point* in the same period in the *financial year* which came to an end 12 months prior to the commencement of the *financial year* in which the charge is to apply (i.e. historical energy offtake); or
 - (2) multiplying the *energy based price* by the metered energy offtake at that *connection point* in the same *billing period* if the historical energy offtake is not available.
- (f) The charge calculated for *prescribed common transmission services* and the adjusted non-locational component of *prescribed TUOS services* using the *contracted agreed maximum demand price* for a *billing period* in a *financial year* for each *connection point* must be calculated by multiplying the *contracted agreed maximum demand price* by the *maximum demand* for the *connection point* in that *financial year* and then dividing this amount by the number of *billing periods* in the *financial year*.
- (g) The *energy based price* or the *contracted agreed maximum demand price* that applies for *prescribed common transmission services* and the adjusted non-locational component of *prescribed TUOS services* must be the one which results in the lower of the *prescribed common transmission services* charge and the adjusted non-locational component of *prescribed TUOS services* charge.
- (h) A *contracted agreed maximum demand price* must only be used for the calculation of the *prescribed common transmission services* charge and the adjusted non-locational component of *prescribed TUOS services* charge if the *Transmission Customer's connection agreement* or other enforceable instrument governing the terms of connection of the *Transmission Customer*:

- (1) nominates a *maximum demand* for the *connection point*; and
- (2) specifies penalties for exceeding the nominated *maximum demand*.

2.4 Attribution of transmission system assets to categories of prescribed transmission services

The following outlines the types of *transmission system* assets that are *directly attributable* to each *category of prescribed transmission service*.

- (a) Entry asset costs are recovered from *Generators* connected to the *Transmission Network*.
 - (1) *Transmission system assets* that are *directly attributable* to *prescribed entry services* include:
 - (i) *substation* establishment and building costs;
 - (ii) all switchgear and *plant* associated with *generators'* connection and *generator transformers*;
 - (iii) all secondary systems associated with primary systems providing *prescribed entry services*;
 - (iv) *transmission* lines owned by *TNSPs* connecting generators to the *TNSP's* assets; and
 - (v) *meters* associated with *prescribed entry services* and owned by the *TNSP*.
- (b) Exit asset costs are recovered from *Transmission Customers* connected to the *Transmission Network*.
 - (1) *Transmission system assets* that are *directly attributable* to *prescribed exit services* include:
 - (i) *substation* establishment and building costs;
 - (ii) switchgear used to supply the sub-transmission *voltage* and associated switchgear at both the *transmission* and sub-transmission *voltage* level;
 - (iii) all transformers which supply the sub-transmission voltage level and associated switchgear at both the *transmission* and sub-transmission *voltage* level;
 - (iv) all secondary systems associated with primary systems providing *prescribed exit services*;
 - (v) *meters* associated with *prescribed exit services* and owned by the *TNSP*; and

- (vi) *reactive plant* installed for *power factor* correction which provides benefit to *Transmission Customers* connected at the *connection point*.
- (c) The assets included in the *prescribed TUOS service category* include all elements of the *transmission network* which provide *transmission* service on a locational basis.
- (1) *Transmission system assets* that are *directly attributable* to *prescribed TUOS services* include:
 - (i) *substation* establishment and building costs;
 - (ii) *transmission lines* and associated easements;
 - (iii) switchgear on *transmission lines* and auto-transformers which are part of the *transmission network* and are switched at the *substation* including associated bus work and control and protection schemes;
 - (iv) auto-transformers which transform *voltage* between *transmission* levels;
 - (v) static and dynamic *reactive plant* and associated switchgear and transformation regardless of the voltage level; and
 - (vi) all system controls required for monitoring and control of the integrated *transmission system* including remote monitoring and associated communications, *load shedding* and special control schemes and *voltage* regulating *plant* required for operation of the integrated *transmission system*.
- (d) The *prescribed common transmission service* category includes all the *transmission* service costs which cannot be allocated to *Transmission Network Users* on a locational basis, including those costs which provide equivalent benefits to all *Transmission Network Users* within the *transmission* system without any differentiation of their location.
- (1) *Transmission system assets* that are *directly attributable* to *prescribed common transmission services* include:
 - (i) *substation* establishment and building costs;
 - (ii) *power system* communications networks;
 - (iii) *control systems*;
 - (iv) network switching centres (excluding generation and system control functions);
 - (v) static and dynamic reactive control *plant* and associated switchgear;
 - (vi) spare plant and equipment including that installed at *substations*;

- (vii) fixed assets such as buildings and land that are not associated with *substation* or line easements, (head office buildings, land for future *substations* etc.); and
- (viii) motor vehicles and construction equipment.

2.5 Disclosure of information

- (a) A *TNSP* should develop its proposed *pricing methodology* so that it can be publicly released by the *AER*.
- (b) If a *TNSP* identifies information which it believes to be confidential or commercially sensitive and providing that information to the *AER* is necessary in order to demonstrate that its proposed *pricing methodology* complies with the *National Electricity Rules*, it should include that information in a confidential version of its proposed *pricing methodology* and provide it to the *AER*.
- (c) The *AER* considers that confidential or commercially sensitive information is likely to include details of, or information that could readily be used to infer an individual *transmission customer's* price or charge, premises, negotiated discounts, *prudential requirements* or other commercial arrangements relating to its electricity supply.
- (d) If a *TNSP* considers that other information should not be publicly available, it must justify its claim for confidentiality to the *AER*.
- (e) If the *AER* disagrees with a *TNSP's* claim that information, other than that identified in section 2.5(c) of these proposed *guidelines*, is of a confidential nature, the *AER* will notify the *TNSP* of its view and will not take the information into consideration when assessing the *TNSP's* proposed *pricing methodology*.

3. Glossary

AARR means the aggregate annual revenue requirement as defined in the *National Electricity Rules*

ASRR means the annual service revenue requirement as defined in the *National Electricity Rules*

AER means the Australian Energy Regulator

Appointing provider has the meaning ascribed to it in clause 6A.29.1(a) of the *National Electricity Rules*

Contracted agreed maximum demand means the agreed maximum demand negotiated between a TNSP and a transmission customer

Directly attributable in relation to transmission assets refers to assets that are used or required to provide the relevant pricing category of prescribed transmission service.¹

Guidelines means the *pricing methodology guidelines*

National Electricity Rules means the rules as defined in the *National Electricity Law*

TNSP means transmission network service provider as defined in the *National Electricity Rules*

TUOS means transmission use of system

¹ AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, 21 December 2006, p.34.