Final Decision

Electricity transmission network service providers

Pricing methodology guidelines

October 2007

Inquiries concerning the currency of these guidelines should be addressed to the:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Ph: (03) 9290 1444
Fax: (03) 9290 1457
Email: AERInquiry@AER.gov.au

Amendment record

Version	Date	Pages
01	29 October 2007	32 pp.

Contents

Glossary

Shortened forms

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CRNP	cost reflective network pricing
DNSP	distribution network service provider
EECL	Ergon Energy Corporation Limited
ETNOF	Electricity Transmission Network Owners' Forum
MAR	maximum allowed revenue
MEU	Major Energy Users Inc.
NEM	National Electricity Market
NER	National Electricity Rules
TNSP	transmission network service provider

Terms

A charge ($) is determined by applying a price ($/unit) to a quantity (unit).

Contract agreed maximum demand or contract capacity means the agreed maximum demand negotiated between a TNSP and a transmission customer.

The 'old pricing rule' refers to the National Electricity Rules, version 9, 27 July 2006.

1. Introduction

The Australian Energy Regulator (AER) is responsible for regulating the revenues of transmission network service providers (TNSPs) in the National Electricity Market (NEM) in accordance with the National Electricity Rules (NER).

In July 2007 the AER issued its proposed (draft) pricing methodology guidelines (proposed guidelines) and invited submissions from interested parties. The AER received five submissions in response to the proposed guidelines. The submissions are available on the AER’s website (www.aer.gov.au).

This final decision sets out the AER’s final pricing methodology guidelines (final guidelines) and provides the AER’s reasons for the final guidelines including its responses to submissions. It has been prepared to satisfy the AER’s obligations under clause 6A.20(e) of the NER.

1.1 Rule requirements

Under clause 6A.25.1(c) of the NER, the AER is required to publish the final guidelines by 31 October 2007. The final guidelines must comply with clause 6A.25.2 of the NER and also give effect to and be consistent with the pricing principles for prescribed transmission services outlined at rule 6A.23 of the NER.

Appendix A outlines the structure of transmission pricing under part J of the NER.

Clause 6A.25.2 of the NER states:

The pricing methodology guidelines must specify or clarify:

(a) the information that is to accompany a proposed pricing methodology being information that is necessary to allow the AER to form a view as to whether the proposed methodology is consistent with and gives effect to, the Pricing Principles for Prescribed Transmission Services and the requirements of this Part J;

(b) permitted pricing structures for recovery of the locational component of providing prescribed TUOS services under clause 6A.23.4(e), having regard to:

(1) the desirability of consistent pricing structures across the NEM; and

(2) the role of pricing structures in signaling efficient investment decisions and network utilisation decisions;

(c) in relation to prices set on a postage-stamp basis, permissible postage stamping structures for the prices for prescribed common transmission services and the recovery of the adjusted non - locational component of providing prescribed TUOS services having regard to;

(1) the desirability of a consistent approach across the NEM, particularly for Transmission Customers that have operations in multiple participating jurisdictions; and

(2) the desirability of signaling to actual and potential Transmission Network Users efficient investment decisions and network utilisation decisions.

(d) the types of transmission system assets that are directly attributable to each category of prescribed transmission services, having regard to the desirability of consistency of cost allocation across the NEM;

(e) those parts (if any) of a proposed pricing methodology or the information accompanying it, that will not be publicly disclosed without the consent of the Transmission Network Service Provider.

1.2 Relationship between the NER and the AEMC rule determination

The final guidelines have been developed to satisfy the requirements of 6A.25 of the NER. The AEMC's rule determination[1] contains guidance as to its intent for clause 6A.25 and has been referred to in various places in this final decision. The rule determination does not have the binding effect of the NER, but in most states of Australia extrinsic material, such as the rule determination, may be used in certain circumstances as an aid to interpretation.

1.3 Purpose and objectives of the guidelines

The purpose of the final guidelines is to assist TNSPs in developing a proposed pricing methodology by specifying or clarifying the contents of clause 6A.25.2 of the NER as outlined above. The objectives of the final guidelines are to:

- contribute to the NEM objective
- give effect to and be consistent with the pricing principles outlined in rule 6A.23 of the NER
- provide guidance to TNSPs when preparing proposed pricing methodologies which must be consistent with the pricing principles for prescribed transmission services in the NER.

The final guidelines must be read in conjunction with the relevant provisions of chapter 6A of the NER.

---

[1] AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, 21 December 2006. Available: http://www.aemc.gov.au/electricity.php?r=20060824.195828

2. The reasons for the guidelines

Revenue cap regulation allows a TNSP to earn up to a maximum allowed revenue (MAR) within a regulatory year. The MAR is used to derive the aggregate annual revenue requirement (AARR) which is recovered from transmission network users by charging for prescribed transmission services. The charges levied by a TNSP are based on transmission service prices derived for each category of prescribed transmission service.

Transmission prices must be determined in accordance with the pricing principles contained in the NER and the final guidelines. The final guidelines supplement and elaborate on the pricing principles in so far as they specify or clarify:

- the information that is to accompany a TNSP's proposed pricing methodology
- pricing structures for the recovery of the locational component of prescribed transmission use of system (TUOS) services
- permissible postage stamp pricing structures for the recovery of the adjusted non-locational component of prescribed TUOS services and prescribed common transmission services
- the types of transmission assets that are directly attributable to each category of prescribed transmission service
- the parts of a proposed pricing methodology, or the information accompanying it which will not be publicly disclosed without the consent of the TNSP.

In April 2007, the AER released an issues paper as the first step in the development of the final guidelines. In July 2007, the AER published its proposed guidelines taking into account the submissions received on the issues paper. The AER has developed its final guidelines taking into account submissions received in response to the proposed guidelines. The AER may, in accordance with the NER, revise the guidelines in light of its experience in assessing TNSP's pricing methodologies.

3. Overarching principles

3.1 Economic principles of electricity transmission pricing

During the AER's consultation process it became apparent that a number of interested parties had made assumptions about the underlying economic rationale for network pricing, or had used their interpretation of the AEMC's discussion to reinforce their views. In order to clarify the AER's analysis and response to submissions it is necessary to set out the economic principles underpinning the network pricing outcomes. This chapter includes a broad discussion of electricity transmission pricing and highlights some of the pricing arrangements used prior to the release of the new pricing rule.

TNSPs recover the revenues allowed under their revenue determinations by levying a range of charges on transmission network users. The manner in which transmission revenues are recovered can impact on the efficient use of and investment in the network, as well as upstream and downstream investment decisions.

At present transmission revenues are recovered via a number of transmission charges established for each transmission network connection point. These charges provide short-run and long-run signals to users based on a range of factors such as:

- the transmission network assets used to deliver energy from generators to transmission network connection points
- the location on the network
- the total amount of energy injected or withdrawn from the network
- the peak rate of flow of electric power injected or withdrawn from the network
- other factors, such as the time of day energy is used.

Under the current arrangements in the NEM additional signals are sent to users via:

- spot price differences arising between different regions of the network (including both spot price differences arising due to inter-regional losses and spot price differences arising due to the presence of binding network limits)
- differences in the static intra-regional loss-factors applying at different locations within each region
- through the impact of intra-regional congestion on the dispatch of intra-regional generators (when such generators are ‘constrained on’ or ‘constrained off’)

This reflects the implementation of pricing options in the NEM, and is the result of many reviews that have occurred in Australia since the NEM development process commenced in the mid 1990s.

In its development of the final guidelines the AER considered it important to take into account the role of transmission prices in driving efficient outcomes in the NEM. As a prelude to this discussion, it is also useful to discuss the theoretical role of transmission prices and alternative arrangements used elsewhere.

Ideally, the marginal price for transmission services should reflect the marginal cost, in both the short run and the long run. Since the short-run marginal cost of the transmission network varies significantly from one dispatch interval to another, this implies that, ideally, transmission prices should vary in real time and should reflect the instantaneous short-run marginal cost of the transmission network. In some international wholesale electricity markets this is achieved by combining the short-run price for the use of the transmission network with the price paid for the generation of electrical energy to form a combined price which varies in real time at different locations across the network. This is known as 'nodal pricing'. Nodal pricing is used in countries such as Argentina and New Zealand and also for the Pennsylvania-New Jersey-Maryland interconnection. Under nodal pricing the differences in the electricity spot prices at different points on the network fully reflect the short-run marginal cost of using the transmission network between those two points.

However, in the presence of economies of scale (as in electricity transmission networks), nodal pricing will not recover the total costs of operating the network. Under these circumstances, there is a need to set a tariff that is above the short-run marginal cost. This is often achieved through the fixed component of a 'two part' tariff. These additional charges are intended to provide for the total recovery of the transmission network operators' costs. They are not intended to alter the behaviour of network users. Ideally, this fixed component would be set in such a way as to not distort the production, operation, location, or expansion decisions of network users. In addition, these fixed charges would be broadly stable over time so as to encourage generators and (at least large) loads to make long-term investments, without fear of significant increases in transmission charges in the future.

In this theoretical ideal, transmission charges would take two forms and would play two quite different roles:

- the 'variable' charges would be time-varying, geographically differentiated, and linked to the energy price, and would be designed to signal the short-run marginal cost of the transmission network

- the 'fixed' charges would be designed so as to recover the fixed costs of the network in a least-distortionary manner.

However the arrangements in the NEM differ from this theoretical ideal in several important ways. In particular, the NEM does not operate as a nodal market. In a regionally-priced market such as the NEM spot prices do not reflect transmission congestion costs. Accordingly, there may be a role for locational transmission charges to correct for the absence of price signals in the wholesale spot market. The NEM also allows for additional charges to recover the fixed and common costs of the network.

Marginal cost prices – transmission use of system locational prices

Where regional pricing arrangements do not fully reflect costs the AER considers that locational transmission prices provide signals for efficient investment and utilisation decisions by transmission network users. To the extent possible, locational transmission prices should reflect the costs of making use of the network at various locations, to encourage the most efficient utilisation of the existing network.

This perspective reflects that of the AEMC which noted in its rule determination that:[2]

> …transmission prices provide signals to the electricity market, which influence the decisions of actual and/or potential electricity consumers and producers. On the demand side, because transmission prices directly affect the delivered electricity price paid by end users at a particular location, they may impact consumption decisions as well as locational investment decisions. Excessively high transmission charges could, for example, result in inefficient by-pass of the transmission network by new or existing consumers. On the supply side, transmission prices can influence both the timing and quantity of electricity production decisions as well as locational investment decisions by electricity generators.

In formulating its final guidelines the AER has borne in mind the need for prescribed TUOS service locational prices to provide signals for efficient investment and utilisation decisions of transmission network users within the framework specified in the NER.

Fixed charges and the recovery of non-locational prescribed TUOS services and prescribed common transmission service costs

A transmission charge is determined by multiplying a price (expressed in dollars per unit) by a quantity (expressed in units). In most circumstances, prices are set prior to the period in which they are to be levied. The application of a variable quantity results in a variable charge. In the case of a fixed charge, the quantity to be applied is specified at the same time the price is determined.

The AER considers that the purpose of the fixed charge elements of the transmission pricing arrangements should be to recover the fixed and common costs of the transmission network in the least distortionary manner.

Economic theory implies that fixed charges should be levied to a greater degree on those network users that have the most inelastic demand for network services – those that are least responsive to changes in charges. This is generally loads, most of whom are served through the distribution network.

The AER also considers that it is preferable for these fixed charges to be stable over time. Stability will enable network users to make investment decisions on the basis of predictable costs. In many other markets price and charge fluctuations can be managed through long-term contracts, but the NEM arrangements do not facilitate long term contracting for network services, except in the circumstances where prudent discounts can be negotiated.

---

[2] AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22,* 21 December 2006, p.14.

These considerations are relevant whether charges are derived using a measure of consumption (energy related) or demand (contract capacity related – contract agreed maximum demand).

Non-locational prescribed TUOS service prices and charges

The old pricing rule[3] was developed, in part, following an application for authorisation of changes to the National Electricity Code by the National Electricity Code Administrator (NECA).[4]

Under the old pricing rule general prices and charges (now referred to as non-locational prescribed TUOS service prices and charges) were calculated on both an energy and contract capacity basis. The amount paid by a network customer at a connection point (the charge) was the lesser of the energy-based charge and the contract capacity-based charge.

Under the old pricing rule the general charge was designed to recover the residual element of each TNSP's AARR and was intended to operate as a fixed charge. It was considered that a fixed charge recovered revenue in a manner which was least distortionary to users' behaviour. However, it was argued that a pure fixed charge ($/year) would be inequitable for some consumers. Therefore a proxy for a fixed charge was developed which, as outlined above, was based on historical energy or contract capacity. The prices for those charges were postage stamped.[5]

In its rule determination, the AEMC indicated that the new pricing rule in the NER largely confirms the continuation of current pricing practices while providing scope for innovation to be proposed by TNSPs and assessed by the AER against the pricing principles.[6] There is no evidence to suggest that the non-locational component of prescribed TUOS service is designed to recover revenue in a manner different to that under the old pricing rule.[7] However, the AER considers there is scope to move beyond what is provided in the old pricing rule and allow alternative postage stamp structures in the final guidelines.

Non-locational prescribed TUOS service prices and charges are derived by first determining the non-locational prescribed TUOS service ASRR. This amount is influenced by a number of factors but will generally increase as the physical length and capacity of the network increases. As noted earlier, to the extent possible, the

---

3 The 'old pricing rule' refers to the *National Electricity Rules, version 9,* 27 July 2006.

4 Australian Competition and Consumer Commission, *Amendments to the National Electricity Code - Network pricing and market network service providers*, 21 September 2001, Available: http://www.accc.gov.au/content/index.phtml/itemId/744424/fromItemId/54380

5 Postage stamping refers to a system of charging where the price per unit is the same regardless of how much energy is used by a transmission user or that user's location on the transmission network.

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

7 Clause 6A.23.4(j) of the NER specifically requires non-locational TUOS services be recovered on a postage stamp basis.

AER considers that users should face stable transmission prices. However TNSPs generally build their networks to cater for maximum demand. Therefore the situation could arise where non-locational prescribed TUOS service prices and charges are increasing due to network expansion, and customers whose load has not varied, and who are not contributing to the need for network expansion will see an increase in their charges.

However in many situations there will be indirect benefits to all users from increased network reliability and stability due to network augmentations. That is, all users benefit from network augmentations via greater transmission network reliability during times of peak demand.

Prescribed common transmission service prices and charges

Prescribed common transmission services provide equivalent benefits to transmission network customers. The costs of these services do not necessarily vary with the size or utilisation of the network. Previously the NER provided for prescribed common transmission service prices and charges to be calculated on both an energy and contract capacity basis, in the same manner as the general price and charge (now the non-locational prescribed TUOS service price). This approach attempts to minimise distortion, by applying the lowest price possible to all customers to recover prescribed common transmission service costs.

Deriving postage stamp prices and charges in the manner outlined under the old pricing rule balances the need to promote equity and minimise any distortion to user behaviour. The AER recognises that in some circumstances there may be benefits in moving beyond basing these postage stamping arrangements solely on a structure that provides for the use of contract capacity and energy. To the extent any alternative arrangements do not distort investment and utilisation decisions then alternative pricing arrangements might be considered.

3.2 AEMC rule determination

In addition to the NER, the AEMC has released a rule determination which provides guidance on its reasons for the positions taken in its final pricing rule. As noted in chapter one of this final decision, the rule determination does not have the binding effect of the NER. However, several interested parties have based submissions on the content of the rule determination. While submissions are discussed in chapter four of this document it is worthwhile providing some discussion on the rule determination here.

The rule determination endorses the following themes:

- the desirability of consistency across the NEM
- price stability
- maintaining the status quo in transmission pricing while providing scope for future innovation

- removing prescriptive elements of transmission pricing arrangements from the NER
- adopting the ‘causer pays’ principle.

These themes have some potential conflicts. In particular the desire for consistency across the NEM does not complement the desire for price stability particularly in the short term. Further, consistency does not necessarily complement maintaining the status quo or removing prescription from the NER.

Price stability and general support for the status quo in transmission pricing are mutually supportive themes. Changes in transmission prices can be driven by overall changes in the revenues TNSPs need to recover, which will generally affect all transmission network users. Transmission price changes may also be driven by changes to the pricing methodology – in which case any increase in prices affecting some users will be offset by price decreases affecting other users. Such price changes are not driven by changes in the size of the network or the quality of the service provided by the network. In these instances, methodology driven price changes do not provide a signalling role and in the absence of countervailing overall efficiency gains such cost shifting is undesirable.

The AER notes the removal of prescriptive elements of the transmission pricing arrangements from the NER – in doing so the AEMC has shown it recognises differences in transmission networks that may drive differing transmission pricing approaches in different regions.[8] Again this is at odds with the need to consider the desirability of consistency – especially in the short term. However, the removal of prescription from the NER opens up the possibility for TNSPs to develop innovative transmission pricing arrangements that address the circumstances in which they operate their network. Moreover, successful innovation by one TNSP can be adopted by others thereby achieving greater consistency.

The AER also recognises that TNSPs have little incentive to be innovative in their approach to pricing arrangements, so long as they can guarantee that they will recover their costs for the provision of prescribed transmission services. In such situations the onus is shifted to transmission network users that wish to drive change to provide a clear rationale for moving from current practice, and demonstrate that any short-term impacts of price fluctuations are offset by demonstrable improvements in the efficient use of or investment in the transmission network. Under the new pricing rule, TNSPs submit a proposed pricing methodology to the AER at the same time they submit a revenue proposal for the next regulatory control period. Interested parties will have an opportunity to make submissions on the proposed pricing methodology and therefore have input into the AER’s decision making process.

The AEMC indicated that the causer pays principle should be used as a guide to whether consumers or producers of electricity should contribute towards the recovery of particular costs. It stated that while the causer pays principle provides some

[8] AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22,* 21 December 2006, p.27-28.

guidance in relation to cost allocation, where costs are incurred to serve multiple purposes it may be less appropriate.

However in the longer term these conflicting themes may all be achievable. The AER considers incremental changes can foster a transition to better transmission network pricing arrangements, without the detrimental effects of significant price fluctuations on some customers. The AER also notes that the regulatory environment is not static. Transmission pricing arrangements may be reviewed as a consequence of the Congestion Management Review that is currently being undertaken by the AEMC.

3.3 The NEM objective

Throughout the development of the final guidelines the AER has taken into consideration the overarching NEM objective:

> To promote efficient investment in, and efficient use of electricity service for the long term interests of consumers of electricity with respect to price, quality reliability and security of supply of electricity and the reliability, safety and security of the national electricity system.

This objective provides a basis against which to assess pricing innovation and weigh likely outcomes against sometimes competing objectives.

4. Issues raised in submissions and the AER's response

The AER received five submissions on the proposed guidelines. All parties that made submissions are listed in appendix B of this document.

This chapter addresses the issues raised in submissions that the AER considers to be material and it outlines the AER's decision on each.

4.1 Information requirements

The Electricity Transmission Network Owners' Forum (ETNOF) and EnergyAustralia were concerned about the information requirements specified in the proposed guidelines.

ETNOF stated that the amount of information and level of detail requested in the proposed guidelines was greater than that required to meet the requirements of the NER. It referred to specific comments made in its submission to the issues paper.

EnergyAustralia stated that prudent discounts are subject to a separate AER approval process and it is unclear that discounts have any relevance to TNSP's pricing methodologies. Any request for information should refer to discounts which have been or are expected to be submitted to the AER for approval.

EnergyAustralia considered that billing arrangements are not relevant to a pricing methodology.

Energy Australia considered that the monitoring and compliance information required under section 2.1(p) and (q) of the proposed guidelines should be specified in the information guidelines.

AER response

Under clause 6A.25.2(a) of the NER the final guidelines must specify or clarify the information that is to accompany a proposed pricing methodology. The information must be sufficient to allow the AER to form a view as to whether a TNSP's proposed pricing methodology is consistent with and gives effect to, the pricing principles for prescribed transmission services and the requirements of part J of the NER.

In response to the concerns of ETNOF and EnergyAustralia that the level of information required is greater than that needed to meet the requirements under the NER, the AER notes that it must request sufficient information to be satisfied that a TNSP's proposed pricing methodology complies with part J of the NER. In its submission to the AER's pricing methodology guidelines issues paper, ETNOF noted that it would simply restate the NER in relation to billing requirements (rule 6A.27). Further, ETNOF stated that prudential requirements (rule 6A.28) were a commercial matter for TNSPs to agree with customers and was not necessarily part of a pricing methodology. While the AER notes billing arrangements and prudential requirements have little impact on a TNSP's proposed pricing methodology they are included in part J of the NER. Hence the AER considers they must be included in a pricing methodology.

In response to EnergyAustralia, the AER notes that while prudent discounts are subject to a separate AER approval process, they impact on transmission prices for other users. The AER agrees with EnergyAustralia's comments that the final guidelines could request information on prudent discounts which have been or are expected to be submitted to the AER for approval.

In sections 2.1(p) and (q) of the proposed guidelines the AER requested TNSPs to provide:

> (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.

The AER is requesting information on how a TNSP will maintain records of, and monitor its compliance with, an approved pricing methodology. It is not requesting a TNSP to provide those records as part of its proposed pricing methodology.

However, clause 6A.17.1 of the NER provides for information to be supplied by a TNSP to the AER which the AER may use to monitor, report on and enforce compliance with a transmission determination. A transmission determination for a TNSP includes a determination that specifies the pricing methodology for a TNSP.

AER decision

The AER has made a number of minor modifications and additions to the information requirements outlined in the proposed guidelines. The additions largely result from further clarification of pricing structures and asset allocation which are discussed later in this final decision. The information is necessary for it to form a view as to whether a TNSP's proposed pricing methodology is consistent with, and gives effect to, the pricing principles for prescribed transmission services and the requirements of part J of the NER.

4.2 Locational pricing structures

Use of demand for locational price structures

Ergon Energy Corporation Limited (EECL) raised a number of concerns with the use of demand in determining locational price structures. Demand metering is not available for 99 per cent of EECL's customers and passing through demand based transmission charges will involve converting them to energy based charges. Further, the majority of customers in EECL's distribution area pay Queensland Government notified prices. Notified prices are a bundled tariff which include generation costs, transmission and distribution charges and retail costs, EECL stated that any transmission price signals will be diluted.

EECL noted that under the NER avoided TUOS payments are calculated based on TUOS usage charges (now referred to as locational prescribed TUOS service charges).[9] The payments represent the difference between TUOS charges calculated using the energy applied to the connection point with and without the injected energy from the generator. Distributed generators are paid avoided TUOS based on the locational energy charge. EECL stated that if the locational charge is based on demand then any energy-based avoided charges become difficult to measure.

Energy Australia indicated that transmission charges are seen by only a few direct connect customers and DNSPs. Transmission pricing structures must be readily translated into prices which influence consumer behaviour. EnergyAustralia stated that no efficiency will be gained in moving away from current practices to those in the proposed guidelines.

AER response

The AER acknowledges the concerns of EECL and EnergyAustralia however, in accordance with clause 6A.23.4(e) of the NER, it is restricted to using a measure of demand for locational pricing structures.

AER decision

Pricing structures 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.

Measures of demand and price signals

ETNOF was concerned that the proposed guidelines confuse the measure of demand used to calculate the locational price and the locational charge. It notes that three separate measures of demand are used in the development of locational prices and charges.

Energy Australia stated that the final guidelines would benefit from a clearer distinction between the first step of cost allocation and the second step which calculates prices.

ETNOF stated that in regions where TNSPs calculate the locational charge using the maximum or contract demand of individual customers in the charging month, customers are aware of how their behaviour affects the charge and can react accordingly. Defining demand as a historical measure of actual demand in calculating charges (as suggested in the proposed guidelines) would blunt the price signal. Further EECL indicated that forecast rather than historical demand should be used to calculate

---

9 Avoided TUOS payments - DNSPs pay embedded generators the locational component of prescribed TUOS service charges that would have been payable by the DNSP to a TNSP had the embedded generator not been connected to the distribution network.

locational charges as historical demand is not necessarily reflective of future demand. EECL stated that much of the growth in Queensland is centred around existing connection points and as a result connection point demand is increasing. Forecast demand would accommodate the dynamic nature of Queensland's electricity demand.

EECL stated that it has four major towns where a meshed distribution network is connected to the transmission network and customers can be supplied from different transmission connection points depending on maintenance switching arrangements. On occasions, customer load is supplied from an alternative connection point for a prolonged period and the proposed guidelines do not allow for adjustments to the recorded demand for these periods.

The MEU sought further clarification of the times to be used for the locational pricing structure suggesting that all half-hour periods between the hours of 11:00am and 7:00pm on system peak demand days might be more suitable than the hours specified in the proposed guidelines.

AER response

The AER notes the concerns of ETNOF, EnergyAustralia, EECL and the MEU in relation to the measures of demand proposed for the locational price structures in the proposed guidelines. The AER has considered these submissions and met with the MEU and several TNSPs to develop its understanding of locational cost allocation and pricing.

Clause 6A.25.2(b) requires that the final guidelines specify or clarify:

> permitted pricing structures for recovery of the locational component of providing prescribed TUOS services under clause 6A.23.4(e), having regard to:
>
> (1) the desirability of consistent pricing structures across the NEM; and
>
> (2) the role of pricing structures in signaling efficient investment decisions and network utilisation decisions;

In relation to price structure principles, clause 6A.23.4(e) states:

> Prices for recovering the locational component of providing 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.

As indicated above, the NER refers to 'price structures' and 'prices'. A locational price must be applied to a quantity of demand to derive the locational charge. It is the locational charge (price multiplied by quantity) which recovers the locational component of prescribed TUOS services. The AER considers that a 'price structure' should refer to both the price and quantity used to determine the charge.

However prior to constructing a locational price, asset costs must be allocated to connection points based on proportionate use. Under the new pricing rule, cost reflective network pricing (CRNP) and modified CRNP are two permitted means of allocating network costs to network assets.

Schedule 6A.3 of the NER outlines the CRNP and modified CRNP methodology and provides guidance on the steps involved in allocating the cost of network assets to connection points based on an assessment of the assets which transport electricity to connection points. S6A.3.2(3) states that one of the cost allocation steps involves:

> Determining the allocation of dispatched generation to loads over a range of actual operating conditions from the previous financial year. The range of operating scenarios is chosen so as to include the conditions that result in most stress on the transmission network and for which network investment may be contemplated.

The AER notes that in applying CRNP under the old pricing rule, TNSPs were required to use operating conditions from the previous financial year and include at least ten days with high system demand.[10] The time period chosen was to correspond to the times when high demands drive network decisions.

In the proposed guidelines, the AER outlined a locational pricing structure assuming that the network pricing software T-price[11] calculated a locational price ($/MW) at each connection point. The AER is now aware that this is not the case. Following discussion with TNSPs and considering submissions, the AER understands that three measures of demand are used in calculating the locational prescribed TUOS service charge. First, historical demand is used as an input into T-price and is used to match generation to load via transmission branches. T-price calculates a lump sum dollar amount to be recovered at each connection point. Second, historical demand or the prevailing contract capacity is applied to the lump sum to determine a price ($/MW). Third a measure of actual demand, forecast or contract capacity is applied to the price to derive the locational charge.

In relation to locational cost allocation, the AER considers that the detail provided in schedule 6A.3.2(3) (on CRNP and modified CRNP methodology) provides sufficient guidance to TNSPs. However it also considers the term ‘most stress’ must refer to a measure of peak demand. Under the information requirements section of the final guidelines the AER has requested that TNSPs set out the peak demand sampling period to be used for locational cost allocation under the CRNP or modified CRNP methodology.

In the proposed guidelines the AER provided two possible pricing structures for calculating locational charges and provided TNSPs the opportunity to propose alternative pricing structures which were consistent with the pricing principles and promote the NEM objective.

In the final guidelines, the pricing structures have been revised to ensure they refer to the derivation of locational prices, while acknowledging that the price must be applied to a measure of demand to derive the locational charge.

In determining locational prescribed TUOS service prices the final guidelines provide for TNSPs to use either:

---

[10] AEMC, *National Electricity Rules, version 9*, 27 July 2006, schedule 6.4.4, p.456.

[11] T-price is network pricing software used by TNSPs to determine the allocation of costs to assets by matching generation to load.

1. The current contract agreed maximum demand (prevailing at the time prices are published) as negotiated in a transmission customer's connection agreement or the transmission customer's historical maximum demand recorded over the previous 12 months if the transmission customer has exceeded its current contract agreed maximum demand ($/MW/day).

2. The average of the transmission customer's half-hourly maximum demand recorded at a connection point on the 10 weekdays when system demand was highest between the hours of 11:00 and 19:00 in the local time zone during the previous 12 months ($/MW/day).

3. An alternative pricing structure based on demand which:

   - gives effect to, and is consistent with the pricing principles for prescribed transmission services in the NER

   - improves on the permitted pricing structures outlined above

   - contributes to the NEM objective.

In deriving the locational charge, the locational price must be applied to a measure of actual, forecast or contract demand over the same time period as that used to determine the locational price.

The AER considers that the approach outlined in the final guidelines will allay the concerns of ETNOF and EECL in relation to delayed price signals.

TNSPs are required to publish prices by 15 May each year. However where a new connection point is commissioned or when the circumstances at an existing connection point change significantly, locational prices may need to be developed or altered after prices are published. The AER considers it appropriate for a TNSP to provide details of how it intends to set locational prices under these circumstances.

The AER notes the comments made by the MEU in relation to the time period for locational price structures. In its submission to the AER's issues paper and the proposed guidelines, the MEU stated that the locational cost allocation conducted by T-price should be based on the time period between 11:00am and 7:00pm on the 10 weekdays where system demand is highest. As discussed above, the AER will request TNSPs to indicate in their proposed pricing methodology the time period for locational cost allocation. The MEU and other interested parties will have an opportunity to comment on a TNSP's locational cost allocation by making submissions on a TNSP's proposed pricing methodology.

The MEU's recommended time period has merit in calculating locational prices. The AER considers the hours specified in the proposed guidelines for the 10 weekdays where system demand is highest (07:00 to 23:00) are too broad and capture times where system demand is not likely to be at a peak. A narrower time period would better reflect periods of peak demand and the AER has therefore accepted the MEU's recommended period of 11:00 to 19:00 hours for the second option outlined above.

Clause 6A.25.2(b) requires the AER to specify or clarify locational pricing structures having regard to the role of pricing structures in signalling efficient investment and network utilisation decisions. The AER notes the AEMC's comments in its rule determination that, in respect of prices intended to send locational signals it makes sense that those prices be based on transmission customers' demand at peak system demand. It states that it is demand which drives TNSPs to contemplate network investment.[12] The AER has considered the role of pricing structures providing signals to transmission users and the requirement under clause 6A.23.4(e) of the NER that prices be based on demand at times of greatest network utilisation and developed permitted pricing structures based solely on peak demand. However it notes that while locational price structures are likely to provide investment and utilisation signals to direct connect transmission users those signals are likely to be muted as they are passed down to retail customers.

The shift to locational pricing structures based solely on demand creates a more consistent approach across the NEM compared with the arrangements under the old pricing rule. The AER considers the approach it has taken provides for greater consistency while also providing for future innovation.

AER decision

The AER has provided further clarification on the permitted pricing structures for the recovery of the locational component of providing prescribed TUOS services. The shift to allow pricing structures based on demand increases consistency across the NEM. While specifying one locational pricing structure would undoubtedly provide for greater consistency, the AER has decided to allow TNSPs to propose alternative pricing structures which comply with the pricing principles in the NER. The intention is to provide an opportunity for innovative pricing structures to be developed and used in the future. The time period for the determination of the locational price under option two has been reduced to the hours between 11:00 and 19:00 in the local time zone.

Transitional arrangements

ETNOF noted that the NER requires the locational charge be based on demand. Previously prices were developed at the TNSP's discretion. As a result of the shift to prices being based exclusively on demand, transmission customers may face material changes to their locational charges. ETNOF stated that transitional arrangements are required to phase in the impact of any changes.

AER response

Under the old pricing rule, TNSPs calculated customer TUOS usage prices (now referred to as locational prescribed TUOS service prices) using a variety of measures. The shift to a locational price based on demand may result in a change to locational prescribed TUOS service prices (and charges) levied at connection points. Regardless of the price structure, the locational component of prescribed TUOS services ASRR must be recovered by TNSPs. If prices and charges rise at one connection point, there must be a corresponding fall at another one (or more) connection points. Inevitably

[12] AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22,* 21 December 2006, p.44.

there will be winners and losers. Any transitional arrangement limiting the increase in locational price and charge at a connection point would, therefore, also limit any corresponding decrease in price and charge at other connection points.

Transmission prices and charges may change at each connection point from year to year for a variety of reasons. Increases in a TNSP's MAR and network reconfiguration may result in changes to locational prices and charges as well as the changes in pricing structure due to the new pricing rule. The AER considers TNSPs are best placed to assess whether an increase in a locational price, and therefore the charge, at a particular connection point is likely to occur as a result of the shift to a demand only pricing structure. For this reason, the AER considers it is for each TNSP to identify where customers are likely to be materially affected by the changes and if necessary, propose a transitional arrangement in its proposed pricing methodology.

The AER notes clause 6A.23.4(f) of the NER provides for a two percent side constraint on the locational component of prescribed TUOS service prices compared to the load weighted average price for this component within the region. If, as a result of the operation of the side constraint the locational component of prescribed TUOS services were under or over recovered, that amount must be offset by a change to the non-locational component of prescribed TUOS services. It is possible that any increase in locational prices at a connection point as a result of the shift to demand may be limited by the operation of clause 6A.23.4(f) thereby reducing the need for transitional arrangements.

AER decision

The AER has decided to allow a TNSP to propose transitional arrangements which the TNSP considers are necessary to address price shocks arising from a change in charges due to a change in locational price structure. The AER will review any proposed transitional arrangements when it makes a decision on the TNSP's proposed pricing methodology.

4.3 Postage stamped pricing structures

In the proposed guidelines (and under the old pricing rule), postage stamped pricing structures were based on either a contract capacity price (based on agreed maximum demand) or an energy based price. Transmission customers would pay the price which resulted in the lowest estimated charge for each connection point.

The MEU stated that TNSP assets are designed to address the peak demand imposed on the network at any location. The MEU stated that non-locational prescribed TUOS services is the 'other half' of prescribed TUOS and reflects the costs of assets used to deliver power from generators to consumers. Recovering non-locational prescribed TUOS services via energy based prices rather than demand based prices provides a 'free ride' to occasional users. The MEU called for non-locational prescribed TUOS service prices to be levied solely on demand.

In relation to prescribed common transmission services, the MEU stated that while there was less justification for basing postage stamped prices on demand it was, nevertheless, an appropriate methodology.

The MEU stated that transmission prices must be calculated so that they sit between the bounds of the standalone and avoidable cost.

ETNOF recommended a minor change to the drafting of section 2.3(e)(1) of the proposed guideline.

ETNOF noted that the postage stamp structure outlined was virtually identical to that in the old pricing rule. However it noted that in the proposed guidelines TNSPs can only use current energy when historical energy is not available. Under the old pricing rule, the AER could approve the use of current energy even if historical energy was available.

AER response

The final guidelines must specify or clarify permissible postage stamping structures for the cost recovery of adjusted non-locational prescribed TUOS services and prescribed common transmission services. In the proposed guidelines the AER specified that the permissible postage stamping structure provided for under the old pricing rule should remain. That postage stamping structure was used by all TNSPs and therefore promoted consistency across the NEM. However, the AER considers it is not limited to clarifying just one permissible pricing structure.

In specifying or clarifying the permitted postage stamp pricing structures, the NER requires the AER to have regard to the desirability of signalling efficient investment and network utilisation decisions. In its rule determination, the AEMC noted that some transmission prices are intended to provide locational investment and network usage signals (such as the locational prescribed TUOS service price) while others are not (for example, prices for the non-locational prescribed TUOS service and the prescribed common transmission service).[13]

The AER considers the postage stamp pricing structure outlined in the proposed guidelines represents an appropriate structure for the recovery of the non-locational component of prescribed TUOS services and prescribed common transmission services. However the MEU has recommended that postage stamped pricing structures should be based on a user’s maximum demand at a connection point. The MEU’s reasoning was based on the concept that it is peak demand which drives network augmentation. Price structures based on actual (current) maximum demand may be distortionary to users’ behaviour in the near term. Using historical maximum demand would minimise this distortion. The charges derived via postage stamped prices are intended to allow TNSPs to recover their total AARR, they are not intended to alter the behaviour of users. The fixed component of a two part tariff should not distort the production, operation, location, or expansion decisions of network users. Therefore, if a demand based postage stamped pricing structure reduces the likelihood

13 Ibid., p.44.

of a user with a large sunk investment from shutting down and disconnecting from the transmission network it should be used to derive postage stamp prices.

The measure of demand (contract, average or peak) and the time period over which it should be measured needs to be considered. Recovering the fixed costs of the transmission network should be as least distortionary to all users’ behaviour as possible. Previously, the justification for basing the postage stamped energy charge on historical data was that it would resemble a fixed charge and users would be less likely to adjust their consumption to avoid that fixed charge. The AER considers the same approach should be used if a demand based postage stamp price is used.

The AER considers the following postage stamp price structures for the recovery of the non-locational component of prescribed TUOS services and prescribed common transmission services are permissible:

1. Either the contract capacity or historical energy from the corresponding billing period two years prior to the current billing perod. A contract capacity price and an energy price must be calculated such that a transmission customer with a load factor in relation to a connection point equal to the median load factor for all connection points within the region is indifferent to the use of either the contract capacity or the historical energy price. The lower of the two prices is to apply to the connection point. A contract capacity price must not be used unless the customers’ connection agreement specifies penalties for exceeding the agreed contract capacity.

2. Historical maximum demand in the corresponding billing period two years prior to the current billing period.

3. An alternative pricing structure which recovers the fixed and common costs of providing the service in the least distortionary manner.

The AER considers that either option one or two can be used for the adjusted non-locational component of prescribed TUOS service price or the prescribed common transmission service price. A TNSP may also propose an alternative postage stamp pricing structure provided it can demonstrate that the alternative structure recovers the costs of providing the service in the least distortionary manner.

The AER considers it appropriate to require TNSPs to nominate the pricing structure they intend to use and allow interested parties the opportunity to make submissions on the proposed structures prior to the AER making a decision.

The AER considers the current postage stamp arrangement is generally least distortionary, especially when considered in the context of large users being able to negotiate discounts on the postage stamped charges. However in some regions, the use of historical energy or contract capacity may distort some users behaviour when they are not able to negotiate a prudent discount. In such cases a move from the status quo may be demonstrably less distortionary and hence justifies the shift from constant price structures across the NEM.

The MEU is concerned that prices may fall outside the range between the standalone and avoidable costs.[14] The standalone cost is the cost a customer would have to pay for an equivalent service from an alternative source. The avoidable cost is the marginal cost of supply. The NER allows prices to fall outside this range via the operation of prudent discounts which are available to users in some circumstances. Postage stamped prices (where the same price per unit applies within the region) do not reflect the cost of providing a service, and it is difficult to assess where these prices sit in relation to stand alone and avoidable costs. Allowing the lower of either the contract capacity price or the historical energy price should allow the recovery of fixed costs in the least distortionary manner. However, as discussed earlier providing scope for alternative postage stamping structures is also appropriate.

The AER has considered ETNOF's comment in relation to the use of current energy when historical energy is available. As a TNSP's network expands and new connection points are established, the circumstances may arise where the commissioning of a connection point removes load from an existing connection point. Basing the energy charge on historical data at the existing connection point may be unfair on the remaining users. Therefore in circumstances where the load at an existing connection point changes significantly, it may be appropriate for TNSPs to use current metered data in calculating either the energy price (under option one above) or the demand based price (under option two above). The AER considers it is appropriate for TNSPs to consider the likelihood of these circumstances occurring and include comments in its proposed pricing methodology.

In response to ETNOF's comments the AER has reviewed the wording in section 2.3 of the proposed guidelines and has made changes to the final guidelines to remove drafting complexity.

AER decision

The AER has decided to retain the postage stamp pricing structure outlined in the proposed guidelines but has provided scope for additional structures. The AER has decided to allow the use of demand-based pricing structures provided they are based on historical maximum demand and to allow TNSPs to propose alternative postage stamping price structures. TNSPs may use current data rather than historical data where the use of historical data would unfairly impact on transmission customers.

4.4 Asset allocation

Hydro Tasmania stated that the list of assets provided in section 2.4 of the proposed guidelines is not comprehensive and the drafting does not limit a TNSP to just those asset types listed.

Hydro Tasmania stated that the proposed guidelines do not provide guidance on how a particular type of asset should be classified. It notes that substation establishment and building costs are included in all four categories of prescribed transmission service.

---

[14] Also see AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22,* 21 December 2006, p22.

Further no guidance is provided for determining where the shared network ends and prescribed entry and exit services commence. Hydro Tasmania is concerned that the operation of the priority ordering process will result in a residual amount being paid by generators.

ETNOF proposed minor drafting changes to section 2.4(a) of the proposed guidelines.

Hydro Tasmania recommended clarifying that section 2.4(a) deals with prescribed and not negotiated entry asset costs via assets which satisfy clause 11.6.11 of the NER. It also recommended associating the connection with ‘generating systems’ as defined in the NER rather than ‘generators’ and identifying applicable transmission lines as being those which connect ‘generating systems’ to TNSP shared network assets.

ETNOF stated that the final guidelines should provide additional guidance where assets may be allocated to more than one category of prescribed transmission service and provide a clear definition of the term ‘directly attributable’. Further, the lists provided at section 2.4 of the proposed guidelines, while intended to provide guidance, imply that an asset can only be attributed to one and only one category of prescribed transmission service.

ETNOF noted that the NER provides a priority ordering process for assets which may be attributable to more than one category of prescribed transmission service. ETNOF was concerned that the AER had not provided any detail on how the priority ordering process should operate. It considered that further clarification is required to achieve consistency in application across the NEM.

The MEU stated that where the same asset is used for both prescribed entry services and prescribed exit services the costs must be shared. It recommends that the final guidelines outline how this cost allocation should occur.

The MEU also stated that the cost allocation approach used in the proposed guidelines and based on schedule 6.2 of the old pricing rule is deterministic rather than principles based and is not consistent with the intent of policy and rule makers. The MEU proposed an alternative asset allocation methodology whereby connection assets (either entry or exit) could be determined by (hypothetically) removing assets from the network to the point where the operation of the shared network is affected. Connection assets could then be further separated into entry and exit assets. In its submission to the AER’s issues paper the MEU stated:[15]

> …an entry must be defined as where electricity is injected to the transmission network, and an exit is where electricity is extracted.

In relation to assets providing prescribed common transmission services, the MEU stated:[16]

[15] Major Energy Users Inc., *Transmission pricing guidelines – Comments on draft pricing guidelines*, May 2007, p.40.

[16] Ibid., p.40.

> …the allocation of assets to common service, would be those assets which if removed would impact on every user connected to the network

Hydro Tasmania requested the AER to express a view on the desirability of a proposal to limit the year on year change in asset classification to prevent step changes in costs.

AER response

The AER is required to clarify the types of transmission assets directly attributable to each category of prescribed transmission service. Prior to publishing the proposed guidelines the AER developed and published an issues paper providing a list of asset types that could be included in each category of prescribed transmission service. The AER sought and received a number of submissions on the issues paper and made alterations to the lists accordingly. In the proposed guidelines the AER did not limit the types of assets to those listed as it wanted to provide scope for additional asset types to be included as and when necessary. However, in the interest of consistency across the NEM it considers it prudent to limit assets to those specified in the final guidelines. If a TNSP identifies a type of transmission asset not included in section 2.4 of the final guidelines it can propose to have it included in its pricing methodology. These circumstances may arise after the development of new asset types in the future.

In response to Hydro Tasmania’s concerns on how a particular type of asset should be classified, the AER notes that the NER provides no guidance on this matter. In its proposed guidelines and in the final guidelines, the AER has provided guidance on asset allocation. However, this guidance is at a high level and the AER considers it is for each TNSP to allocate individual assets to categories of prescribed transmission service based on the high level guidance in the final guidelines and its knowledge of the individual assets on its transmission network.

The AER notes Hydro Tasmania’s concerns that the proposed guidelines do not provide any guidance as to where the shared network ends and prescribed entry and exit services begin. This detail is not provided in the NER and is beyond the scope of the final guidelines. However, in the rule determination, the AEMC state that the final pricing rule does not change the definition of the term ‘connection point’ and that it is for TNSPs and customers to negotiate and agree on the location of a connection point.

Clause 6A.23.2(d) of the NER provides for what is referred to as the priority ordering approach to asset allocation. It outlines the approach where an asset is attributable to more than one category of prescribed transmission service. Section 3.1.5 of the AEMC’s rule determination provides an example of how the priority ordering process should operate. In many cases an individual asset will be directly attributable to one and only one category of prescribed transmission service by virtue of its location in the network. However, where an asset, such as substation land or substation buildings may be attributable to more than one category of service, the costs of that asset must be allocated using the approach specified in clause 6A.23.2(d) of the NER.

In its submission to the AER, ETNOF indicated that the proposed guidelines have not provided sufficient detail to promote consistency across the NEM. ETNOF referenced the AEMC's rule determination stating:[17]

> The AEMC[4] noted in its determination that:
>
> "….ETNOF identified that some TNSPs may undertake the cost allocation approach at different levels of granularity. Such differences in allocation will lead to different outcomes across the NEM without a clear basis for difference. While the Commission considers that Approach 1 from the ETNOF's supplementary submission is likely to be the most appropriate, in order to promote consistency across the NEM the Commission has decided to require the AER to develop guidelines on this issue."

The AER notes that ETNOF have omitted to include the last sentence of the paragraph which states:[18]

> The AER guidelines will seek to clarify which types of assets are directly attributable to each category of prescribed services having regard to the desirability of consistency across the NEM.

The AER understands that ETNOF would like the final guidelines to prescribe the approach for priority ordering. However the AER considers it is for each TNSP to propose a priority ordering approach that is consistent with clause 6A.23.2(d) of the NER in its proposed pricing methodology. The AER will consider the proposed approach when reviewing each TNSP's proposed pricing methodology.

The NER does not provide a definition of the term 'directly attributable'. The AER notes in the context of cost allocation, the AEMC's rule determination states:[19]

> The expression "directly attributable" is intended to have the same meaning as it has in the Revenue Rule. That is, it refers to assets that are used or required to provide the relevant pricing category of prescribed transmission service.

The AER considers the drafting of section 2.4 (a)-(d) of the proposed guidelines indicates that assets can be allocated to more than one category of prescribed transmission service. The allocation of substation establishment costs is one such example, these costs may be allocated to all four prescribed transmission service categories depending on the prescribed services provided at a connection point. Under these circumstances each TNSP must allocate costs according to the priority ordering approach principles outlined in clause 6A.23.2(d) of the NER.

The AER notes the MEU's comments that assets may be attributable to both prescribed entry services and prescribed exit services. While these circumstances were addressed under the old pricing rule, the pricing principles in part J provide no guidance. The AER considers that costs which are attributable to both prescribed entry services and prescribed exit services should be shared in an economically

---

17 Electricity Transmission Network Owners' Forum, *Pricing methodology guideline – Response to AER proposed (draft) transmission pricing methodology guideline*, 5 September 2007, p.7.

18 AEMC, Rule Determination, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22,* 21 December 2006, p.38.

19 Ibid., p.34.

efficient manner or as agreed by the parties involved. Additionally, in some regions, several transmission network users may connect to the transmission network at a connection point and a share of the costs will need to allocated to each user. The AER does not consider it appropriate for it to be prescriptive in these matters, rather it should be for each TNSP to outline how it will deal with asset allocation under these circumstances in its proposed pricing methodology. The MEU and other interested parties will have an opportunity to respond to a TNSP's asset allocation methodology via submissions on the proposed pricing methodology.

The AER has reviewed the alternative asset allocation methodology put forward by the MEU. In accordance with clause 6A.25.2(d) of the NER, the final guidelines must specify the types of transmission system assets that are directly attributable to each category of prescribed transmission service. The AER notes that 'categories of prescribed transmission services' are defined in the NER and are limited to:

- prescribed entry services
- prescribed exit services
- prescribed common transmission services and
- prescribed TUOS services.

Additionally each prescribed transmission service is defined in the NER. The MEU's alternative asset allocation methodology, in so far as it seeks to define terms already defined, is not consistent with the NER.

In the proposed guidelines the AER identified the types of transmission system assets (such as transformers, circuit breakers and transmission lines) and specified which category of prescribed transmission service each would be directly attributable to.[20] The MEU's alternative asset allocation methodology may be more suitable to the allocation of individual assets to categories of prescribed transmission service at a more granular level. The allocation of individual assets located on the transmission network is the responsibility of each TNSP and not within the scope of the final guidelines. The AER also considers that defining the terms 'entry' and 'exit' to be beyond the scope of the final guidelines.

Hydro Tasmania raised the prospect of limiting the year on year change to asset classification to prevent step changes in costs. While this may be desirable, the AER does not consider it is within the scope of the guidelines to address this matter. The operation of the new pricing rule and the final guidelines may impact on a number of transmission network users and it is difficult for the AER to accurately assess this impact. The AER considers it is for TNSPs to assess the likely impact arising from any changes to cost allocation and propose transitional arrangements if necessary. Stakeholders will have an opportunity to make submissions on TNSP's proposed pricing methodology prior to the AER making a decision.

[20] As stated previously, several types of transmission system assets are attributable to more than one category of prescribed transmission service.

The AER considers ETNOF's recommended drafting changes to section 2.4(a) of the proposed guidelines will reduce complexity and are appropriate.

The AER has reviewed the drafting changes suggested by Hydro Tasmania. This section of the guidelines has been amended.

AER decision

The AER has decided:

- to make minor drafting changes to the asset allocation section of the final guidelines. The types of transmission assets directly attributable to each category of prescribed transmission service have been limited to those in the final guidelines. However TNSPs will be able to propose the inclusion of additional asset types and the AER will assess each proposal when it makes a decision on the TNSP's proposed pricing methodology.

- that each TNSP should propose a priority ordering approach as part of its proposed pricing methodology. The AER will assess the proposed priority ordering approach when it considers the TNSP's proposed pricing methodology.

- that TNSPs should outline how any costs which may be attributable to both prescribed entry services and prescribed exit services or costs which may be attributable to multiple transmission network users will be allocated. If applicable, this information must be provided in a TNSP's proposed pricing methodology.

- that TNSPs should assess the likely impact of any changes to cost allocation and propose transitional arrangements if necessary.

4.5 Disclosure of information

EnergyAustralia stated that the proposed guidelines do not specify when the AER will not publicly disclose information.

AER response

In the proposed guidelines the AER outlined the types of information which might reasonably be considered to be confidential or commercially sensitive. It also outlined the process for TNSPs to take in lodging confidential and commercially sensitive information and how the AER will deal with this information.

The AER notes the comments made by Energy Australia and considers a minor drafting change is to section 2.5 of the final guidelines is appropriate.

AER decision

The AER has decided to make minor drafting changes to the final guidelines to specify when the AER will not publicly disclose information provided to it by a TNSP.

4.6 Other issues

The MEU stated that generators without blackstart capability are an occasional user of the transmission network and as such should pay use of system charges for the energy they import.

The MEU stated that the AER has assumed that consistency across the NEM implies continuity of existing practices and has reiterated its call for consistency across the NEM.

The MEU also stated that prices must provide signals to TNSPs, generators and consumers. It stated that in putting stability ahead of providing strong signals to market participants the AER is at odds with policy and rule makers. Further it stated that the AER must address the need to provide strong signals to consumers in relation to demand when the network is most stressed and the benefits of co-location of energy supply and consumption.

AER response

In response to the MEU's comments that generators without blackstart capability should pay use of system charges the AER considers determining 'who pays' transmission charges to be a matter for the NER and beyond the scope of the final guidelines. However in its rule determination, the AEMC stated that it did not believe there was a case for requiring generators to pay ongoing charges in respect of prescribed TUOS services.[21]

The AER does not assume that consistency across the NEM implies continuity of existing practices. In specifying or clarifying permitted pricing structures and the allocation of assets to categories of prescribed transmission service the AER must have regard to the desirability of consistency across the NEM. It is not required to ensure all pricing structures and asset allocation methodologies employed by TNSPs are identical across the NEM. The move to locational pricing structures based solely on demand shifts towards a consistent approach. However, to allow just one or two pricing structures may prevent TNSPs from developing more appropriate demand based structures. Similarly, while prescribing just one postage stamp pricing structure would ensure consistency it may not, under all circumstances, be the most appropriate approach. Hence the inclusion of a demand based postage stamp pricing structure option and providing the opportunity for TNSPs to propose alternative structures is a prudent approach. Specifying the types of transmission assets directly attributable to each category of prescribed service will also foster a consistent approach across the NEM however, it is for TNSPs to determine exactly how the allocation of assets to connection points is to occur consistent with their pricing policy.

---

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

The shift to a demand based locational pricing structure where prices are derived at times of greatest network utilisation will provide signals to consumers to reduce demand at these times. However, the AER notes that many transmission customers are DNSPs with little or no control over customer demand and therefore any signals provided by transmission prices may be muted. Transmission network signals are most likely to be acted upon by direct connect customers.

In response to the issue of load co-locating with generation, the AER considers the use of CRNP provides some signalling of the benefits of generation/load co-location. CRNP matches generation to load via transmission assets, therefore if loads can locate close to sources of generation fewer transmission assets will be required to deliver energy to loads and the benefits of co-location will be reflected in locational prices.

AER decision

The AER has decided that it is beyond the scope of the final guidelines to specify who should pay transmission charges.

5. Concluding comments

The AER has developed the final guidelines so that they give effect to and are consistent with the pricing principles for prescribed transmission services. It has also considered, where required, the desirability of consistency across the NEM and providing transmission network investment and utilisation signals. The AER has also considered, where appropriate, the following themes as outlined in the AEMC's rule determination:

- price stability
- maintaining the status quo in transmission pricing while providing scope for future innovation and
- removal of prescriptive elements of transmission pricing arrangements from the NER.

As discussed earlier several of these themes are incompatible with each other. A shift to a more consistent approach may create short-term price instability and the removal of prescription may not be in the interests of fostering consistency across the NEM.

The AER may amend or replace the final guidelines from time to time in accordance with the transmission consultation procedures outlined in the NER. Other work programs such as the AEMC's Congestion Management Review may also have implications for transmission network pricing creating the need for revision of the guidelines.

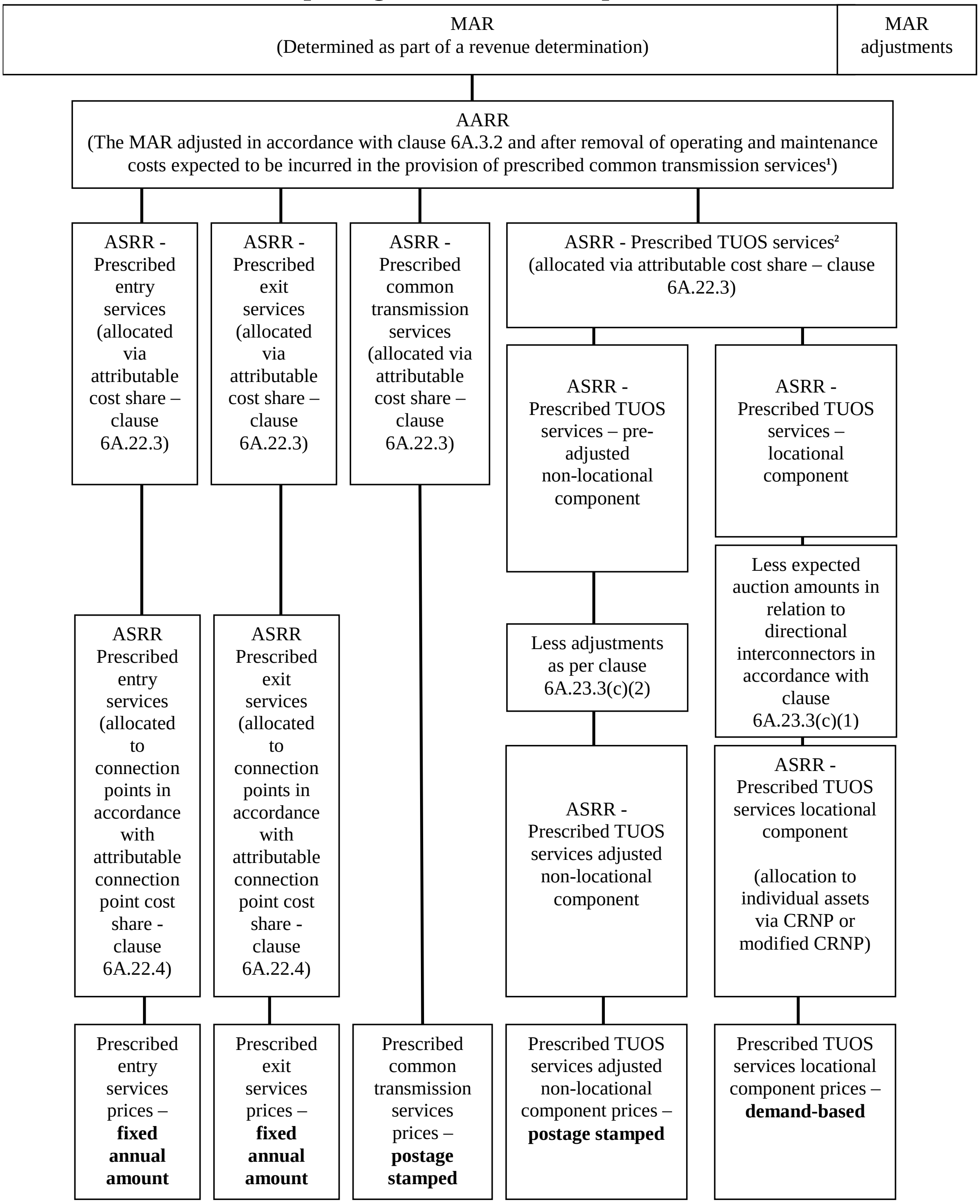
Developing transmission network cost allocation methodologies and pricing structures is not a scientific process. In a regionalised market with a diverse range of transmission users spread across thousands of kilometres of transmission network a single approach may not provide the best outcomes in all regions.

The AER will assess each TNSP's proposed pricing methodology to determine whether it is consistent with the pricing principles for prescribed transmission services outlined in the NER and the AER's final guidelines. Prior to making a decision, stakeholders will have the opportunity to make submissions on each TNSP's proposed pricing methodology including any alternative pricing structures proposed by TNSPs. The AER will take submissions into account prior to making a decision.

The final guidelines are included at appendix C.

Appendix A: Transmission pricing diagram

Transmission pricing under Part J, Chapter 6A of the NER



[1] These operating and maintenance costs are not part of the AARR, nor are they part of the ASRR for prescribed common transmission services, however they are recovered on a postage stamp basis.

[2] Shares of the ASRR for prescribed TUOS services are to be allocated 50% to the locational component and 50% to the pre-adjusted non-location component or using an alternative allocation as per clause 6A.23.3(d)(2).

Appendix B: Submissions received

The following interested parties provided submissions to the AER on the proposed guidelines:

- EnergyAustralia
- Electricity Transmission Network Owners' Forum
- Ergon Energy Corporation Limited
- Hydro Tasmania
- Major Energy Users Inc.

Copies of submissions made by these parties are available on the AER website (www.aer.gov.au).

Appendix C: Pricing methodology guidelines