Australian Energy Regulator

Contents of Transmission Pricing Methodology Guidelines

July 2007

This report contains 49 pages

Contents

1 Executive Summary

Clause 6A.25.1 of the National Electricity Rules (NER) requires the Australian Energy Regulator (AER) to make pricing methodology guidelines for the pricing of prescribed transmission services by 31 October 2007. Network Advisory Services consider that the AER should develop these in order to:

- Promote the National Electricity Market (NEM) Objective;
- Reflect, and be limited by, the requirements of the NER;
- Detail permitted pricing structures that a Transmission Network Service Provider (TNSP) could reflect into its pricing methodology, while allowing a TNSP to propose alternative arrangements if they can be justified under the NER;
- Support the AER's monitoring, reporting and enforcement role under the NER; and
- Require a TNSP to explain in detail in its pricing methodology how its prices have been developed, consistent with the requirements of the NER and the pricing methodology guidelines.

In addition, there is a need for the AER to have due regard for the Australian Energy Market Commission's (AEMC) Rule Determination in developing its guidelines which, amongst other things:

- Recognised the "broad acceptability" of TNSPs' current pricing arrangements;
- Noted that it may not be appropriate to apply a strict "causer pays" principle when costs are incurred to serve multiple purposes;
- Supported pricing arrangements that promote stability, predictability, transparency, consistency, innovation, clarity and certainty; and
- Noted that not all prices are intended to provide the same price signals.

This report considers these matters in recommending the contents of the AER's pricing methodology guidelines in order to address the requirements of clause 6A.25.2 of the NER. In doing so, it also has regard for the requirements of the National Electricity Law (NEL) and the NER, an Issues Paper in relation to the development of the guidelines that the AER publicly released in April 2007 and the submissions that were subsequently received.

This report recommends that the AER's pricing methodology guidelines should:

- Require a TNSP's pricing methodology to explain the mechanics of how its aggregate annual revenue requirement (AARR) would be allocated and how its prices would be structured for each service category. A TNSP's pricing methodology should also include information that explains and supports its approach, demonstrates how it will be applied and enables the AER to monitor, report on and enforce its implementation;

- Include two permitted pricing structures for the recovery of the locational component of prescribed TUOS services. First, a user's charge could be based on the higher of the contracted maximum demand as reflected in its customer connection agreement and its actual maximum demand for a defined period. Secondly, a user's charge could be based on the average of the 10 highest system maximum demand days in the previous 12 months.

  A TNSP should also be able to propose alternative structures for these services if they can be justified under the NER.

- Include the current pricing structures for prescribed common transmission services and non-locational prescribed TUOS services as permitted pricing structures. This involves the TNSP calculating energy and capacity based prices and applying the price that results in the lowest charge to the user. Users without an agreed maximum demand would be charged on an energy basis.

  A TNSP should also be able to propose alternative structures for these services if they can be justified under the NER.

- Retain the approach to the attribution of transmission system assets that is detailed in its Issues Paper, which was based on schedule 6.2 of the old chapter 6.

  A TNSP should also be able to propose an alternative allocation of assets if it can be justified under the NER.

- Require the TNSP to limit the inclusion of confidential or commercially sensitive information in its pricing methodology and justify to the AER why it considers that any such information that is included should not be publicly disclosed.

2 Introduction

2.1 Background

The AEMC undertook a detailed review during 2005 and 2006 of the future regulation of the pricing of prescribed transmission services. This review culminated in it issuing Rule Number 22 on 21 December 2006, which then became Part J of Chapter 6A of the NER. This replaced Part C of Chapter 6 of the NER, which had previously regulated the pricing of prescribed transmission services.

Part J of Chapter 6A details a series of pricing principles for prescribed transmission services. It requires the AER to develop pricing methodology guidelines that give effect to these pricing principles by 31 October 2007. A TNSP must prepare a proposed pricing methodology that gives effect to, and is consistent with, the pricing principles and that complies with the requirements of the AER's pricing methodology guidelines. A TNSP must submit its proposed pricing methodology to the AER with its revenue proposal for the next regulatory control period and must apply its approved pricing methodology for the duration of that period.

The AER published a "Pricing Methodology Guidelines - Issues Paper" (Issues Paper) in April 2007 that examined issues, and asked a number of questions, relevant to the development of its pricing methodology guidelines. The AER received five submissions in response to its Issues Paper.

2.2 Relevant provisions of the NER

Chapter 10 of the NER includes the following definitions:

- *Pricing methodology guidelines* – "Guidelines made by the AER under rule 6A.25 that contain the matters set out in 6A.25.2"; and

- *Pricing methodology* – "For a Transmission Network Service Provider, means the pricing methodology approved by the AER for that Transmission Network Service Provider and included in a transmission determination as referred to in rule 6A.24".

Clause 6A.25.1 of the NER provides that:

> *(a) The AER must, in accordance with the transmission consultation procedures, make guidelines (the pricing methodology guidelines) relating to the preparation by a Transmission Network Service Provider of a proposed pricing methodology.*

(b) The pricing methodology guidelines:

(1) must give effect to, and be consistent with, the Pricing Principles for Prescribed Transmission Services;

(2) may be amended or replaced by the AER from time to time in accordance with the transmission consultation procedures; and

(3) must be published by the AER.

(c) The AER must develop and publish the first pricing methodology guidelines by 31 October 2007 and there must be pricing methodology guidelines in force at all times after that date.

Clause 6A.25.2 of the NER details the required contents of the pricing methodology guidelines. This clause provides that:

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.

2.3 Purpose of this report

The purpose of this report is to recommend to the AER the contents of its pricing methodology guidelines to address the requirements of clause 6A.25.2 of the NER having regard, in particular, for:

- The requirements of the NEL and the NER;
- The AER's April 2007 Issues Paper; and
- The five public submissions that have been received by the AER in response to its Issues Paper.

Importantly, this report does not:

- Assess the relative merits of each of the pricing options raised in the AER's Issues Paper. Rather, it proposes those options that are considered to be the most feasible having regard for a series of general principles that the AER should promote in its pricing methodology guidelines;
- Assess the requests made in some of the public submissions to clarify the basis on which TNSPs should price their prescribed transmission services where these requests are considered to be beyond the scope of the pricing methodology guidelines as required by clause 6A.25.2 of the NER; and
- Deal with TNSPs that are subject to agreed interim arrangements under Chapter 11 of the NER. Rather, the report is confined to the application of Part J of Chapter 6A of the NER (i.e. without any derogations or transitional arrangements).

2.4 Structure of this report

The remainder of this report is structured as follows:

- Section 3 identifies general principles that it is considered the AER should have regard for in developing its pricing methodology guidelines;

- Section 4 examines information that TNSPs should be required to include in their pricing methodologies;
- Section 5 examines permitted pricing structures for the recovery of the locational component of providing prescribed TUOS services;
- Section 6 examines permitted pricing structures for postage-stamp prices for prescribed common transmission services and for the recovery of the adjusted non-locational component of providing prescribed TUOS services;
- Section 7 examines the types of transmission system assets that are directly attributable to each category of prescribed transmission services;
- Section 8 examines information that will not be publicly disclosed without the consent of the TNSP; and
- Section 9 summarises the recommendations made in the rest of this report.

2.5 Disclaimer

This report has been prepared for the AER to assist in the development of its pricing methodology guidelines. The conclusions drawn in this report may not be valid if there is any change in the facts, circumstances or assumptions that have been made available to Network Advisory Services. Accordingly, while we believe that the statements made in this report are accurate, no warranty of accuracy or reliability is given.

Neither Network Advisory Services nor any employee of Network Advisory Services takes responsibility arising in any way whatsoever to any person (other than the AER) in respect of this advice, for any errors or omissions herein, arising through negligence or otherwise however caused. This document is not to be used for any purpose other than those specified herein.

3 General principles

This section identifies general principles that it is considered the AER should have regard for in developing its pricing methodology guidelines. These general principles are that the pricing methodology guidelines should:

- Promote the NEM Objective;
- Reflect, and be limited by, the requirements of the NER;
- Have due regard for the AEMC's Rule Determination[1] for the pricing of prescribed transmission services;
- Detail permitted pricing structures that a TNSP could reflect into its pricing methodology, while allowing a TNSP to propose alternative arrangements if they can be justified under the NER;
- Support the AER's monitoring, reporting and enforcement role under the NER; and
- Require a TNSP's Pricing Methodology to provide a detailed explanation of how its prices have been developed, consistent with the requirements of the NER and the pricing methodology guidelines.

The nature of, and reason for applying, these general principles is described below. They are drawn upon in the following sections of this report as the basis for determining the proposed contents of the AER's pricing methodology guidelines.

3.1 Promote NEM Objective

The functions and powers of the AER are detailed in section 15 of the NEL and include the enforcement of the NER and the economic regulation of electricity transmission.

Section 16(1) of the NEL provides that the AER must perform or exercise its functions and powers "in a manner that will or is likely to contribute to the achievement of the national electricity market objective". The NEM Objective is defined in section 7 of the NEL as follows:

> *The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services 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.*

[1] AEMC, "Rule Determination – National Electricity Amendment (Pricing of Prescribed Transmission Services) Rules 2006 No.22", 21 December 2006

As a result, the AER's pricing methodology guidelines must promote the NEM Objective. Specifically, they must consider the promotion of efficient investment in, and use of, electricity services.

3.2 Reflect, and be limited by, the NER

The governance framework for the NEM that is provided for in the NEL and the NER sets out clear roles for the AEMC as the "rule maker" and the AER as the "rule enforcer".

Section 34(3)(e) of the NEL enables the AEMC to confer a function on the AER to make guidelines. Chapter 6A of the NER requires the AER to make a number of guidelines, including pricing methodology guidelines.

While they detail specific matters that the AER must address in its various guidelines, the NER do not provide a general discussion of the role of the guidelines and the way in which they should be applied. However, in its Rule Determination for the pricing of prescribed transmission services, the AEMC indicated that the role of the AER's guidelines should be to "provide increased clarity and certainty to market participants"[2].

The AER's guidelines can therefore be interpreted to have a limited role. They should neither extend the scope of the NER nor limit the NER's intended application – to do otherwise could risk the AER exceeding its functions as a "rule enforcer" to become a "rule maker".

As noted in section 2.1, the required contents of the pricing methodology guidelines are detailed in clause 6A.25.2 of the NER. Given their limited role, it is considered that the AER's pricing methodology guidelines should be used to:

- Detail what the AER would consider acceptable and unacceptable practices for the purposes of clause 6A.25.2;
- Clarify the AER's interpretation of terms used in clause 6A.25.2 where this is considered necessary; and
- Explain the practical application of clause 6A.25.2 where this is considered necessary.

The pricing methodology guidelines should therefore neither limit nor expand the application of clause 6A.25.2 of the NER beyond what the AER reasonably considers that the AEMC intended in making the NER.

[2] AEMC, op cit, 21, December 2006, page 50

3.3 Have regard for AEMC's Rule Determination

The AEMC undertook a detailed process to make its Rule Determination for the pricing of prescribed transmission services. This process included issuing:

- An initial scoping paper in July 2005 that invited public submissions on the issues raised;
- A pricing issues paper in November 2005 that invited further submissions;
- A pricing proposal report and proposed pricing rule in August 2006;
- A draft determination and draft pricing rule in October 2006; and
- A final Rule Determination and Rule Number 22 on 21 December 2006. Rule Number 22 then became Part J of Chapter 6A of the NER.[3]

Taken together, these documents set out the AEMC's detailed reasoning for making the new rules, including how it sought to:

- Promote the NEM objective and the broader requirements of the NEL;
- Have regard for existing pricing practices and the stakeholders that would be impacted by proposed changes to the NER; and
- Take account of the public submissions it received and, where appropriate, make changes to the NER as made.

It is therefore considered that in developing its pricing methodology guidelines the AER should have due regard for the AEMC's detailed reasoning for what became Part J of Chapter 6A, in particular, the matters covered by the AEMC's final Rule Determination.

The Rule Determination sets out the AEMC's positions on a wide range of pricing-related matters, many (but not all) of which are considered directly relevant to the AER's development of the pricing methodology guidelines. (Not all of the AEMC's positions are considered directly relevant given that Part J of Chapter 6A covers a wider range of pricing issues than are dealt with in clause 6A.25.2, which applies to the pricing methodology guidelines.) The most important of the relevant AEMC positions are as follows:

[3] These documents are available on the AEMC's website at http://www.aemc.gov.au/electricity.php?r=20060824.195828

(a) *"Broad acceptability" of current pricing* – the AEMC's Rule Determination:

- States that "the Commission has maintained the view that there is not a need to alter the substance of the current approach to pricing for Prescribed Transmission Services to a large extent"[4];

- Is based on the AEMC "confirming the broad acceptability of the approach to pricing in the existing Rules"[5]; and

- Reflects the fact that "the Commission has developed a Final Pricing Rule that largely confirms the continued operation of the current pricing methodologies while also providing scope for innovation into the future"[6].

This suggests that the AEMC did not intend that the AER's pricing methodology guidelines should alter radically the current basis on which TNSPs' price their prescribed transmission services. However, changes should be made where they are necessary to accommodate the requirements of the Part J of the NER, including to promote the pricing principles in clause 6A.23.

(b) *"Removing unnecessary detail"* – the AEMC's Rule Determination is based on it "recasting the pricing rules to a principles-based form by removing unnecessary detail on implementation and administration matters, while confirming that existing arrangements may largely continue to apply and providing certainty regarding pricing outcomes. The pricing principles have also been designed to allow innovation for alternative pricing methodologies to emerge over time subject to constraints in the Rules"[7]. This has been done so that the "regulatory framework for pricing should reflect the Commission's approach and framework for revenue regulation"[8].

This suggests that the AER should avoid re-introducing "unnecessary detail on implementation and administration matters" through the pricing methodology guidelines, where such detail has been eliminated from the NER. To do otherwise would simply shift this "unnecessary detail" from one regulatory instrument to another. However, where there are provisions that were formerly included in Chapter 6 that are not now in Chapter 6A that have continuing relevance to the pricing of transmission services the AER should consider dealing with them in the pricing methodology guidelines.

(c) *Causer pays* – The Rule Determination accepts the general benefits of applying the "causer pays" principle for determining who should contribute to the recovery of particular costs. However, the AEMC states that:

---

[4] Ibid, page 1
[5] Ibid, page 26
[6] Ibid, page 1
[7] Ibid, page 26
[8] Ibid, page 26

> *While noting the merits of a causer pays principle, the Commission also recognises that it may not be appropriate to apply a strict causer pays principle when costs are incurred to serve multiple purposes; in other words, where there are several cost drivers. Such costs typically arise where economies of scale and scope exist: that is, situations where it is cheaper in an overall sense to provide services jointly rather than separately. In these cases, it is important to ensure that prices for each of the relevant services lie between the incremental and the standalone costs of providing each service. These requirements are known as the Baumol-Willig conditions.*
>
> *In recognition of the problems associated with applying the causer pays principle in a shared network with economies of scale and scope the Commission considers that where assets are being used for multiple purposes that it is appropriate to allocate costs on the basis of use. This principle acknowledges that it is often more efficient to utilise existing sunk assets rather than duplicating assets when they are required.*[9,10]

The AER's pricing methodology guidelines should be consistent with this position.

(d) *Stability and predictability* – The Rule Determination notes that transmission pricing should promote "stability and predictability" in order to give effect to the NEM objective. Specifically, the AEMC considers that "other things being equal, transmission prices should be sufficiently stable and predictable to enable participants to plan and make long term decisions without suffering price shocks"[11].

Given this, and that AEMC considers "stability and predictability" to be important to "promote good regulatory practice"[12], the AER should seek to support these outcomes through its pricing methodology guidelines, including by limiting the potential for price shocks.

In a practical sense, it is not considered possible for the AER (or anyone else) to assess effectively the impacts of changes to pricing arrangements for prescribed transmission services without significant input from TNSPs. This input has not been sought in preparing this report as it is beyond the scope of Network Advisory Services' engagement. This has necessarily constrained the recommendations made in this report about the TNSPs moving away from their existing pricing practices.

---

[9] Ibid, page 22

[10] Two of the outcomes of this position are that the AEMC considers that generators should not pay prescribed TUOS charges and should "only pay for shallow connection as it is consumers that cause the need for network assets". Refer page 10 of the AEMC's Rule Determination.

[11] Ibid, page 10

[12] Ibid, page 2

(e) *Transparency* – The Rule Determination notes that transmission pricing should promote "transparency" in order to give effect to the NEM objective. Specifically, the AEMC considers that "the price-setting process should be as transparent as practicable so that participants retain confidence in the regulatory arrangements and are able to make locational and consumption decisions on an informed basis"[13].

Given this, and that AEMC considers "transparency" to be important to "promote good regulatory practice"[14], the AER should seek to support these outcomes through its pricing methodology guidelines.

(f) *Consistency* – The AEMC noted concerns in its Rule Determination, particularly from electricity customers, that applying a principles-based approach in the NER, rather than a more prescriptive approach, may result in users with operations across regions or jurisdictions facing different price structures and outcomes. This may in turn impact on the efficiency of price signals provided to users. It therefore required the AER in Part J of the NER to consider "the desirability of consistent pricing structures across the NEM" when developing its pricing methodology guidelines.

Importantly, it is considered that this need not mean that TNSPs' pricing structures be identical or that the AER be required to mandate specific pricing structures for TNSPs to apply. If the AER was to require TNSPs to have identical pricing structures it would need to mandate a single approach to transmission pricing in its pricing methodology guidelines that allows no discretion or flexibility for TNSPs. It is considered that this is neither practical to develop and implement nor consistent with promoting the general principles in this section 3.

(g) *Innovation* – The Rule Determination noted that "The pricing principles have also been designed to allow innovation for alternative pricing methodologies to emerge over time subject to constraints in the Rules"[15]. Elsewhere in the Rule Determination the AEMC notes that "the provision of guided discretion on implementation elements of the regime to TNSPs and the AER has the benefit of enabling current practices to largely continue while allowing innovation to occur where appropriate"[16].

This suggests that the AER should avoid either:

- Mandating specific pricing structures for TNSPs to apply; or
- Imposing unnecessarily restrictive requirements on TNSPs' pricing structures.

[13] Ibid, page 10
[14] Ibid, page 11
[15] Ibid, page 26
[16] Ibid, page 27

Rather, the pricing methodology guidelines should enable TNSPs to propose alternative pricing structures provided that they can demonstrate that they are consistent with the requirements of Part J of the NER and, in particular, the pricing principles in clause 6A.23.

(h) *Clarity and certainty* – The Rule Determination states that "The Commission accepts that there may be different interpretations of the principles in the Rules, in this context the AER is required to consider the views of stakeholders and the NEM Objective in determining the appropriate interpretation on details of implementation and administration. In addition, the Commission considers that the introduction of AER guidelines on a number of issues will provide increased clarity and certainty to market participants in this regard."[17]

As discussed in section 3.2, this suggests that the AER should use the pricing methodology guidelines to clarify its interpretation of terms used in clause 6A.25.2 of the NER where this is considered necessary to provide greater certainty. However, any such clarification should not be extended beyond that strictly necessary for the purposes of clause 6A.2.5.2.

(i) *Not all prices are intended to provide the same price signals* – The AEMC's Rule Determination states that "In response to the point made by the MEU in favor of demand-based pricing, the Commission notes that some prescribed transmission prices are intended to send locational investment and network usage signals (for example the price recovering the TUOS locational charge) while others are not (for example the prices for recovering the TUOS non-locational charge and Common Service charges)"[18].

This suggests that:

- The AER should avoid "oversignalling" through the TNSPs' price structure. Indeed, the AEMC noted in its Rule Determination that it "has taken care to ensure that the Final Pricing Rule does not result in inefficient 'oversignalling' of the value or cost of transmission, given the signals resulting from other aspects of the NEM regulatory arrangements"[19]; and

- While clause 6A.23.4(e) of the NER provides that "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", demand need not be used as the basis for postage-stamp pricing.

(j) *Nature of "demand" based pricing* – The Rule Determination identified two key issues to resolve in relation to the meaning of "demand" for the purposes of locational TUOS pricing:

---

[17] Ibid, page 50
[18] Ibid, page 44
[19] Ibid, page 25

- "whether it should refer to contract demand, actual demand or some other measure". In relation to this matter, the AEMC noted that the "Resolution of this issue is likely to require consultation with TNSPs and transmission customers";[20] and

- "whether demand and peak network conditions should be assessed over a single half-hour for the year, or whether they should be assessed over one day, several days or a longer period. The Commission believes that these matters are best left to the assessment of the AER through an extensive consultation process". [21]

Importantly, the AEMC makes clear that both of these are matters for the AER to determine. To this end, the AER raised these matters in its Issues Paper and received several submissions from interested parties.

(k) *Nature of "postage stamping"* – The Rule Determination states that:

> *The Commission believes that the price structure for the non-locational TUOS charge and Common Service Charge should continue to (be) postage-stamped. However, it would be inappropriate to specify the precise form or type of postage-stamping in the Rules. For example, postage-stamping could refer to various measures of either demand or consumption. In the Commission's view, the appropriate type of postage-stamping needs to reflect a balance of both:*
>
> - *the importance of minimising the disincentive on Transmission Network Users to utilise the (existing sunk) network; and*
>
> - *the importance of signalling the potential future impact of load growth on the need to invest in transmission or transmission alternatives.*
>
> *In other words, the pricing structure needs to balance the demands of static efficiency and dynamic efficiency.*
>
> *Once again, the Commission believes this matter is best left to the assessment of the AER.*[22]

The AEMC has therefore not specified a particular basis for postage-stamping that the AER must apply. Rather, the AER should approve postage-stamp pricing structures having regard for their impacts on static and dynamic efficiency, as is provided for in clause 6A.25.2(c).

[20] Ibid, page 44
[21] Ibid, page 44
[22] Ibid, page 45

(l) _Nature of "directly attributable"_ - The Rule Determination provides that:

> _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. This will ensure consistency between the manner of cost allocation for assets that provide both existing and new connection services. This approach also implies that the costs of prescribed exit services can migrate to the prescribed TUOS or common services._[23]

This interpretation of "directly attributable" should be applied by the AER for the purposes of clause 6A.25.2(d) of the NER.

3.4 Mandatory or flexible arrangements

There are two broad approaches that the AER could take to the development of its pricing methodology guidelines.

The first broad approach would be to mandate very specific requirements in the pricing methodology guidelines in relation to each matter provided for in clause 6A.25(2)(a) to (e) of the NER. This approach would satisfy some, but conflict with other, positions that the AEMC detailed in its Rule Determination that were discussed in section 3.3 above. In particular, it would:

- Promote transparency, consistency, clarity and certainty as there would be a single, mandated approach that would apply to all TNSPs;

- Not necessarily promote stability as applying a mandated approach to TNSPs could result in significant tariff shocks for different customers if appropriate transitional arrangements were not implemented. This could result in some customers enjoying price reductions and other customers facing price increases. It is considered that the AER could not assess or quantify the nature and scope of these pricing impacts without significant input and cooperation from TNSPs; and

- Not permit innovation as TNSPs would have to price strictly in accordance with the AER's mandated pricing structures. They could not adopt different pricing structures over time that better promote the pricing principles in clause 6A.23 of the NER.

The alternative broad approach would be for the pricing methodology guidelines to specify elements of a pricing methodology that the AER considers meet the requirements of Part J of the NER but to allow a TNSP to suggest alternative

[23] Ibid, page 34

arrangements in its proposed pricing methodology. Under this approach, the AER would detail arrangements in relation to each matter provided for in clause 6A.25.2(a) to (e) of the NER that it considers are consistent with the requirements of the NER. If the TNSP proposed alternative arrangements in its pricing methodology it would need to justify how these arrangements were consistent with the requirements of Part J of the NER.

It is considered that this second approach would promote the positions that the AEMC detailed in its Rule Determination that were discussed in section 3.3 above. In particular, it could:

- Allow for a "minimalist change" from the TNSPs' current approaches to transmission pricing, recognising that the AEMC noted the "broad acceptability" of these arrangements;
- Promote stability and predictability if it allowed TNSPs to manage price shocks through transitional arrangements, while complying with the pricing principles in clause 6A.23 of the NER;
- Promote transparency, clarity and certainty as any alternative proposal would be made as part of a TNSP's pricing methodology, which would be submitted to the AER with its revenue proposal. It would therefore be subject to consultation in accordance with the NER. This would mean that interested parties could comment on it directly;
- Promote innovation as TNSPs would have the opportunity to propose alternative pricing structures to the AER over time that they consider better promote the pricing principles in clause 6A.23 of the NER. TNSPs' pricing structures could therefore be more dynamic and responsive to changing needs, while needing to remain consistent with the NER; and
- Accommodate differences between TNSPs, such as the demand profile across their systems, and enable them to propose the most suitable pricing structures for their business.

Importantly, this approach would:

- Put the onus on the TNSP to demonstrate that their proposed alternative arrangement complies with the NER;
- Ensure that the AER would continue to approve pricing structures, subject to the requirements of the NER; and
- Continue to require the AER to have due regard for the "desirability of consistent approaches across the NEM" although, as the AEMC envisaged, there need not be identical approaches applied by all TNSPs.

For these reasons it is considered that the AER's pricing methodology guidelines:

- Should detail permitted pricing structures that a TNSP could reflect into its pricing methodology, while giving a TNSP the opportunity to propose alternative arrangements if they can be justified under the NER; and

- Need not include explicit transitional provisions because the guidelines would give the TNSPs sufficient flexibility to manage the process of moving from their current pricing arrangements to new pricing arrangements.

3.5 Support AER's monitoring, reporting and enforcement role

Clause 6A.17.1(d) of the NER provides that:

> *The certified annual statements and additional information provided by a Transmission Network Service Provider to the AER under this rule 6A.17 may be used by the AER only for the following purposes:*
>
> *(1) to monitor, report on and enforce the compliance of the provider with the total revenue cap for the provider for a regulatory control period, the maximum allowed revenue for the provider for each regulatory year, and any requirements that are imposed on the provider under a transmission determination.*

Clause 6A.2.2(4) of the NER provides that a transmission determination includes "a determination that specifies the pricing methodology that applies to the provider".

This suggests that the AER has responsibility for monitoring, reporting on and enforcing a TNSP's compliance with its pricing methodology. The pricing methodology guidelines should support the AER to fulfil this responsibility by requiring a TNSP to provide relevant information in its pricing methodology, in accordance with clause 6A.25.2(a) of the NER. This could include information that the AER may require to be audited during a regulatory control period.

3.6 Ensure detailed explanation of development of TNSPs' prices

A TNSP's Pricing Methodology should provide a detailed explanation of how it develops its prices so that the AER can understand how the requirements of Part J of the NER have been applied and complied with, as is required by clause 6A.25.2(a) of the NER. Importantly, this means that the pricing methodology should do more than simply re-state the pricing principles. Rather, it should include:

- A full explanation of how the TNSP will apply the AARR to determine prices for individual prescribed transmission services; and

- Worked examples to enable the AER to understand how, in a practical sense, the pricing methodology would be applied in particular circumstances.

4 Information requirements

This section examines the information that the AER's pricing methodology guidelines should require TNSPs to include in their pricing methodologies.

4.1 Relevant provisions of the NER

Clause 6A.25.2 of the NER requires that:

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.

The following clauses of the NER are particularly relevant to considering the information that a TNSP should be required to include in its pricing methodology:

- Clause 6A.24.1(b) states that:

  A pricing methodology is a methodology, formula, process or approach that, when applied by a Transmission Network Service Provider:

  (1) allocates the aggregate annual revenue requirement for prescribed transmission services provided by that provider to:

  (i) the categories of prescribed transmission services for that provider; and

  (ii) transmission network connection points of Transmission Network Users; and

  (2) determines the structure of the prices that a Transmission Network Service Provider may charge for each of the categories of prescribed transmission services for that provider.

- Clauses 6A.10.1(e), 6A.12.1(e) and 6A.24.1(c) state that a TNSP's proposed (or revised proposed) pricing methodology must:

  (1) give effect to and be consistent with the Pricing Principles for Prescribed Transmission Services; and

  (2) comply with the requirements of, and contain or be accompanied by such information as is required by, the pricing methodology guidelines made for that purpose under rule 6A.25.

Clause 6A.14.3(g) requires the AER to approve a TNSP's current pricing methodology if it satisfies these same requirements.

- Clause 6A.23.1 states that:

  (a) This rule 6A.23 sets out the principles that constitute the Pricing Principles for Prescribed Transmission Services.

  (b) The Pricing Principles for Prescribed Transmission Services are given effect by pricing methodologies.

  The remainder of clause 6A.23 goes on to detail the nature of the pricing principles – these principles are discussed further below.

- Clause 6A.26 deals with prudent discounts. Clause 6A.26.1(d) states that:

  Subject to this clause 6A.26.1, a Transmission Network Service Provider that agrees to charge a beneficiary reduced charges, may recover the difference between the revenue that would be recovered by the application of the maximum prices referred to in paragraph (a) and the reduced charges (the discount amount) from either or both charges:

  (1) to other Transmission Customers for the adjusted non-locational component of prescribed TUOS services; and

  (2) for prescribed common transmission services,

  in accordance with the provider's pricing methodology.

- Clause 6A.26.1(g) goes on to provide that:

  Where for any reason the Transmission Network Service Provider does not recover the proportion of a discount amount that the provider is entitled to recover from other Transmission Customers under this clause in the financial year in which the reduced charges apply, the Transmission Network Service Provider may recover the difference through the charges for the adjusted non-locational component of prescribed TUOS services to apply in a subsequent financial year, in accordance with the provider's pricing methodology.

- Clause 6A.29 deals with the pricing of prescribed transmission services that are provided within a region by multiple TNSPs. Clause 6A.29.1(d) provides that:

  The Co-ordinating Network Service Provider is responsible for making the allocation referred to in paragraph (a), in accordance with its pricing methodology, in relation to Transmission Network Users' and Transmission Network Service Providers' transmission network connection points located within the region and an appointing provider is not required to address the matters specified in rule 6A.24.1(c)(1) when preparing its pricing methodology.

- Clause 6A.29(f) goes on to provide that:

  The Co-ordinating Network Service Provider must provide sufficient information to an appointing provider to enable that provider:

  (1) to understand the basis for the allocation referred to in paragraphs (a) and (d); and

  (2) to prepare its pricing methodology and replicate the pricing allocation.

4.2 Relevant "general principles"

It is considered that the AER should address the requirements of the NER in relation to the contents of a TNSP's pricing methodology by having particular regard for the benefits of transparency and the AER's monitoring, reporting and enforcement role discussed in section 3 of this report:

- *Transparency* – The information included in a pricing methodology should be sufficiently detailed and relevant to enable:

  - The AER to form a view as to whether the pricing methodology is consistent with, and gives effect to, the pricing principles and Part J of the NER and meets the requirements of the pricing methodology guidelines; and

  - Users to understand how the prices that are used to calculate the charges that are levied by TNSPs have been developed, including how they compare with the prices charged by other TNSPs.

  It is considered that the inclusion of worked examples in the the pricing methodology will further promote transparency and aid the AER and users' understanding of the pricing of prescribed transmission services.

- *Monitoring, reporting and enforcement* – The AER should require information to be included in a TNSP's pricing methodology in a manner that will enable it to discharge its responsibility to effectively monitor, report on and enforce a TNSP's compliance with its pricing methodology. The information required from a TNSP should be sufficiently detailed to enable the AER to assess whether the TNSP:

  - Will give effect to the pricing principles and requirements of Part J of Chapter 6A and therefore whether its proposed pricing methodology should be approved; and

  - Is complying with its approved pricing methodology, by comparing the TNSP's pricing practices with the requirements of the pricing methodology over the course of the regulatory control period.

  Again, it is considered that the inclusion of worked examples in the pricing methodology will assist the AER's ability to monitor a TNSP's on-going compliance under the NER.

4.3 Contents of a TNSP's pricing methodology

It is considered that a TNSP's pricing methodology should contain the following information relevant to the mechanics of allocating its AARR and structuring its prices:

- *Nature of AARR* – The pricing methodology should make clear whether the AARR determined in accordance with clause 6A22.1 of the NER that is being allocated under the pricing methodology relates to one or more TNSP. It is noted that, in accordance with clause 6A.29.1, where a co-ordinating network service provider has been appointed, it is responsible for allocating all of the relevant AARR relating to all prescribed transmission services that are provided within the region under its responsibility[24];

- *Allocation of AARR between service categories* – The pricing methodology should explain in detail how the TNSP will allocate its AARR between each service category in accordance with clause 6A.23.2. This should include details of how it will:

  - Calculate the attributable cost shares for each service category under clause 6A.23;

[24] In accordance with clause 6A.29.1(f), an "appointing provider's" pricing methodology must replicate the allocation of the AARR provided for by the co-ordinating network service provider that it has appointed.

  - Calculate the annual service revenue requirement (ASRR) for each service category under clause 6A.23; and

  - Apply the priority ordering approach to the allocation of costs between service categories under clause 6A.23.2(d).

- *Allocation of ASRR between connection points* – The pricing methodology should explain in detail how the TNSP will allocate the ASRR for each service category to each connection point, and for prescribed TUOS services between the locational and non-locational component, in accordance with clause 6A.23.3. This should include a clear statement of which of the two approaches under clause 6A.23.3(d) are to be applied to determine the locational and non-locational component of the ASRR for prescribed TUOS services;

- *Price structures* – The pricing methodology should:

  - Confirm that separate prices will be developed for each category of prescribed transmission services, as required by clause 6A.23.4(b);

  - Confirm that the prices for its prescribed entry services and prescribed exit services will be fixed annual amounts, as required by clause 6A.23.4(c);

  - Confirm that prices for prescribed common transmission services and the adjusted non-locational component of prescribed TUOS services will be set on a postage-stamp basis, as required by clause 6A.23.4(d) and (j) respectively; and

  - Confirm that prices for prescribed common transmission services and for recovering the adjusted non-locational component of prescribed TUOS services will be set on a postage-stamp basis, as required by clause 6A.23.4(d) and (j) respectively, and provide details of which:

    - Permitted pricing structure that is detailed in the AER's pricing methodology guidelines the TNSP proposes to apply and how it proposes to apply it; or

    - Alternative pricing structure the TNSP proposes to apply and how it proposes to apply it, being a structure that is not one of the permitted pricing structures set out in the AER's pricing methodology guidelines.

  - Provide details, in relation to recovering the locational component of prescribed TUOS services, of which:

    - Permitted pricing structure that is detailed in the AER's pricing methodology guidelines the TNSP proposes to apply and how it proposes to apply it; or

- o Alternative pricing structure the TNSP proposes to apply and how it proposes to apply it, being a structure that is not one of the permitted pricing structures set out in the AER's pricing methodology guidelines.

The TNSP should also confirm that it will comply with the price structure principles in clause 6A.23.4(f) to (i) in relation to these services.

It is considered that a TNSP's proposed pricing methodology should also include the following other information:

- *Multiple TNSPs or single TNSP for a region* – A TNSP should be required to detail whether it is the sole provider of prescribed transmission services within its region or whether there are multiple TNSPs. In the case of multiple TNSPs, a TNSP should detail whether it:
  - Has been appointed as the co-ordinating network service provider for a region under clause 6A.29.1(a) and is therefore responsible for the allocation of all the AARR within that region; or
  - Is an "appointing provider" for the purposes of clause 6A.29.1(a) so that it has appointed another TNSP to act as a co-ordinating network service provider.
- *Pricing principles* – A TNSP (other than an "appointing provider"[25]) should be required to explain how it considers its proposed pricing methodology gives effect to, and is consistent with, the pricing principles in clause 6A.23 of the NER. The TNSP's explanation should:
  - Include worked examples of the way in which it will apply its pricing methodology. These hypothetical examples should be sufficiently detailed to enable the AER to determine whether the TNSP's proposed pricing methodology is consistent with, and gives effect to, the pricing principles in clause 6A.23 and Part J of the NER; and
  - Include a detailed explanation of how any alternative pricing structures that the TNSP may choose to apply comply with meet the requirements of clause 6A.23.4. No such explanation should be needed if the TNSP applies one of the permitted pricing structures that are detailed in the AER's pricing methodology guidelines.

[25] An "appointing provider" should not be required to address these pricing principles because clause 6A.29.1(d) provides that "an appointing provider is not required to address the matters specified in rule 6A.24.1(c)(1) when preparing its pricing methodology". Rather, it is required under clause 6A.29.1(f) to replicate the allocation of the AARR provided for by the co-ordinating network service provider.

This is considered necessary to enable the AER to fulfil its obligations under clause 6A.14.3(g)(1) of the NER in relation to the approval of a TNSP's pricing methodology.

- *Pricing methodology guidelines* – A TNSP should be required to explain how it considers its proposed pricing methodology complies with the requirements of the pricing methodology guidelines. This information is required to enable the AER to fulfil its obligations under clause 6A.14.3(g)(2);

- *Prudent discounts* – A TNSP should be required to detail how it intends to recover discount amounts relating to prudent discounts through its prices to other transmission customers. This information is required for the purposes of clause 6A.23.3(c)(2)(v) and clauses 6A.26.1(d) and (f);

- *Billing* – A TNSP should be required to detail what billing arrangements it intends to apply to transmission network users and how payments between TNSPs are to be made. This information is required for the purposes of clause 6A.27;

- *Prudential requirements* – A TNSP should be required to detail the nature of prudential requirements that it may require a transmission network user to comply with, including how any capital contributions will be taken into account in determining a user's prices for prescribed transmission services. This information is required for the purposes of clause 6A.28;

- *Information disclosure* – A TNSP should be required to detail the information that it has provided to the AER in its pricing methodology that it thinks should not be publicly disclosed without its consent, having regard for the requirements of the pricing methodology guidelines. This is discussed further in section 8 of this report;

- *Commencement date* – The TNSP should detail the proposed date on which the pricing methodology will commence. It is noted that clause 6A.24.1(e) provides that "Subject to clause 6A.24.3, a pricing methodology applies for the duration of the relevant regulatory control period". Clause 6A.24.3 contemplates situations where the TNSP needs to set its prices but its pricing methodology has not been approved; and

- *Revisions from previous regulatory control period* – The TNSP should detail its proposed revisions to its pricing methodology from what applied in the previous regulatory control period. This was a matter canvassed in the AER's Issues Paper. It is considered that it would provide important clarity for the AER about proposed changes between periods and would therefore aid the process of the AER approving a proposed pricing methodology under clause 6A.14.3(g).

The AER may also consider adapting several requirements from its draft cost allocation guidelines[26], which mandate the contents of a TNSP's cost allocation methodology, for its pricing methodology guidelines. In particular, the AER may consider requiring a TNSP to include the following additional information in its pricing methodology:

- *Records maintenance* – The pricing methodology could describe how the TNSP will maintain records of the application of its pricing methodology in order to enable the AER to monitor, report on and enforce the pricing methodology in accordance with clause 6A.17.1(d);

- *Compliance monitoring* – The pricing methodology could describe how the TNSP will monitor its compliance with the pricing methodology, the pricing principles in clause 6A.23 of the NER and the pricing methodology guidelines; and

- *Directors' statement* – The pricing methodology could include a statement that is signed and dated by not less than two directors of a TNSP, which states whether in the directors' opinion, the information contained in the pricing methodology is accurate and which confirms the TNSP's intention to comply with the pricing methodology as approved by AER.

It is considered that the proposed contents of a TNSP's pricing methodology will:

- Promote transparency of a TNSP's price-setting process by requiring it to provide a detailed explanation of the development of its prices for prescribed transmission services. This will aid:

  - The process for the AER approving a TNSP's pricing methodology; and

  - Users' understanding of the charges that are levied by their TNSP, including the extent of consistency of TNSPs' prices.

- Provide a sound basis for the AER monitoring, reporting and enforcing a TNSP's compliance with its pricing methodology, in accordance with clause 6A.17.1(d) of the NER.

[26] A copy of this draft is available on the AER's website at www.aer.gov.auhttp://www.aer.gov.au/content/index.phtml/itemId/709345/fromItemId/659971

5 Permitted pricing structures – locational

This section examines permitted pricing structures for the recovery of the locational component of a TNSP's prescribed TUOS services.

5.1 Relevant provisions of the NER

Clause 6A.25.2(b) of the NER requires that the AER's pricing methodology guidelines must 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.*

Clause 6A.23.4(e) provides that:

> *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.*

Clauses 6A.23.4(f) to (i) of the NER detail constraints on the way in which prices for the recovery of the locational component of prescribed TUOS services can move between years and the way in which any under or over-recovery of revenue for these services is to be treated.

5.2 Relevant "general principles"

It is considered that the AER should address the requirements of the NER in relation to the permitted pricing structures for the recovery of the locational component of prescribed TUOS services having particular regard for the following "general principles" discussed in section 3 of this report:

- *Consistency and stability* – clause 6A.25.2(b) requires the AER to consider the "desirability of consistent pricing structures across the NEM". In there responses to the AER's issues paper:
  - The Electricity Transmission Network Owners Forum (ETNOF) supported a consistent structure for TUOS locational prices but argued that transitional arrangements should be allowed in order to manage the pricing impacts on customers;

- VENCorp supported consistent pricing structures in order to allow "'like for like' comparisons of the costs of transmission across the various networks comprising the NEM. This, in turn, will signal efficient decisions regarding the location of new loads in the NEM"[27]; whereas

- The Major Energy Users Group argued that "The need for consistency across the NEM means that all TNSPs follow the same basis for pricing approaches"[28].

As noted in section 3.3 of this report, it is considered that the requirement for the AER to have regard for pricing consistency need not mean that TNSPs' pricing structures must be identical or that the AER be required to mandate specific pricing structures for particular TNSPs. This is because the AER also has a need to consider price "stability", which involves limiting (where possible) the potential for price shocks. The AER has no real ability to assess the impacts of changes to price structures without significant input from TNSPs. This suggests that the AER should:

- Restrict the permitted pricing structures in its pricing methodology guidelines in order to promote consistency; but

- Accept a TNSP seeking to apply an alternative pricing structure in order to manage price shocks to customers provided that the proposal complies with the requirements of the NER.

• *Price signals* – The AEMC chose to require demand-based prices to recover the locational component of prescribed TUOS services because it "considers that demand provides a better and clearer signal to users of the network" than consumption. This decision reflected a view that TNSP's augment their system's capacity based on maximum demand, not energy, considerations.[29]

  In order to provide an effective signal, a demand-based price should allow the user to know in advance:

  - When it needs to alter its behaviour; and

  - What the financial consequences of responding, and not responding, to the price signal will be (i.e. what prices it will be charged under different scenarios).

• *Flexibility and innovation* – As discussed in section 3.4, the AER should detail permitted pricing structures that a TNSP could reflect into its pricing

[27] VENCorp, "AER's Issues Paper on the Pricing Methodology Guidelines", 29 May 2007, page 4
[28] Major Energy Users, "Comments on the Draft Pricing Guidelines", page 5
[29] "Demand" is expressed in kilowatts (kW) or kilovoltamps (kVA) and is the rate at which electricity is supplied at a given instant. "Energy" is expressed in kilowatt hours (kWh) and refers to electricity consumption over a period of time.

methodology but also give a TNSP the option to propose alternative arrangements if they can be justified under the NER. This would mean that:

- None of the pricing structures that the AER includes in its pricing methodology guidelines should be mandatory;
- The AER could accept a TNSP applying a permitted pricing structure under the pricing methodology guidelines without needing to conduct further detailed analysis of its proposed approach;
- The onus would be on the TNSP to demonstrate that any alternative pricing structure that it may propose complies with the NER;
- The AER would still need to have regard for the requirements of the NER in considering any proposed pricing methodology; and
- TNSPs could pursue innovation in their pricing structures where they think it worthwhile within the confines of the NER.

• *Demand based prices* – As discussed in section 3.3(a), the AEMC accepted that in framing Part J of Chapter 6A no major changes were required to TNSP's current pricing structures. However, by requiring TUOS locational prices to be "based on demand at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated", the AEMC mandated a change in price structure. This is because, as highlighted in the AER's issues paper, some TNSPs don't base their current customer TUOS usage prices[30] just on demand. For example, Powerlink have demand and energy components to their prices and Transgrid have demand, energy and fixed components to their prices.

  The AEMC's Rule Determination makes it clear that energy should not be used in recovering the locational component of prescribed TUOS services. It stated:

  > *The Commission has been persuaded, however, that the Rules should be explicit that pricing for the locational TUOS charge should be based on demand (rather than consumption) of times of peak system conditions. The Commission considers that demand provides a better and clearer signal to users of the network.*

  The NER defines the term "demand based price" as:

  > *A price expressed in dollars per kilowatt per time period or dollars per kilovolt ampere per time period.*

[30] These services have now been renamed the locational component of prescribed TUOS services in Part J of the NER.

As a consequence, energy based prices and fixed prices should not be used to recover the locational component of prescribed TUOS services – this is consistent with the basis on which the AER prepared its Issues Paper.

5.3 Permitted pricing structures

As noted in section 3.3(j), the AEMC left the AER to determine:

- Whether contracted, actual or another measure of demand should be used as the basis of TNSPs' demand-based prices; and
- The term over which demand and peak network conditions should be assessed for the purposes of setting a TNSPs' demand-based prices.

It is considered that, given this flexibility, there are two demand-based price structures for the recovery of the locational component of prescribed TUOS services that could be applied that promote the relevant requirements of the NER and the "general principles":

- First, a user's charge could be based on the higher of the contracted maximum demand as reflected in its customer connection agreement and its actual maximum demand for a defined period, for example the previous 12 months. This approach was suggested by the Major Energy Users in its submission to the AER and is consistent with what it is understood ETNOF proposed in its submission. It is also a variation on "Demand based option 5" that the AER proposed in its Issues Paper, which involved charging based on agreed maximum demand and applying defined penalties for exceed that amount.

  The advantages of this approach are that:

  - If a customer can manage its maximum demand under its agreed amount then it will be charged a known maximum amount; and
  - If a customer exceeds its agreed maximum demand at any time during the year then it will be penalised by being charged a higher amount. Clearly, the higher the penalty the greater the incentive to avoid exceeding the agreed amount.

- Secondly, a user's charge could be based on the average of the daily maximum demand over a number of days during a specified period that is nominated as driving transmission network investment. This is "Demand based option 4" as proposed by the AER in its Issues Paper. It gave the example of measuring the maximum demand based on the average of the 10 highest maximum demand days in a three month summer period and using these values to determine charges for the following financial year. However, forecast, rather than historic, maximum demand values would need to be used for new loads during the first year they are charged. This option was supported by VENCorp as being consistent with its current pricing approach.

In order to take account of differences in the timing of TNSPs' maximum demand, it is proposed that a user's charge be based on the average of the 10 highest system maximum demand days in the previous 12 months.

The advantages of this approach are that:

- The maximum demand values reflect the demand characteristics of TNSPs' networks;
- A user knows in advance that it needs to manage its demand, although it does not know in advance the exact days that will be used to determine the maximum demand values for calculating its charge for the following financial year; and
- A user is charged based on the actual maximum demand for its connection point, as determined by the TNSP.

It is considered that these two approaches should be included in the pricing methodology guidelines as permitted pricing structures for the recovery of the locational component of prescribed TUOS services, although a TNSP should be able to propose alternative structures if they can be justified under the NER. In this way, the AER will:

- Provide price signals to users that allow them to know in advance:
  - When they need to alter their behaviour;
  - What the consequences of responding, and not responding, to the price signal will be (i.e. what prices it will be charged under different scenarios); and
  - Where it is most efficient for them to connect to the network. In this way, a TNSP may be able to defer augmenting its network if users connect to more lightly loaded parts of the network.
- Encourage users to manage their maximum demand and therefore reduce their demand-based (locational) charges. This will therefore encourage the efficient use of the existing network (i.e. static efficiency);
- Promote consistency of pricing structures across the NEM by providing for just two approaches;
- Promote flexibility by giving the TNSP discretion, within a defined framework, for:

- How it will determine the maximum demand under the two approaches. It will be able to gain approval to calculate the maximum demand amounts based on the characteristics of its network; and

- Whether to express its prices based on a kilowatt (kW) or kilovolt ampere (kVA) per time period basis, depending on its technical capacity to do apply the charge.

- Allow innovation by enabling a TNSP to justify an alternative pricing approach under the NER if the TNSP considers it warranted; and

- Promote price stability by allowing a TNSP either to adopt one of the permitted pricing approaches or to propose an alternative if it thinks it necessary to manage price shocks to users.

6 Permitted pricing structures – postage-stamp

This section examines permitted pricing structures for postage-stamp prices for prescribed common transmission services and the recovery of the adjusted non-locational component of providing prescribed TUOS services.

6.1 Relevant provisions of the NER

Clause 6A.25.2(c) of the NER requires the AER's pricing methodology guidelines to specify or clarify:

> *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.*

Clause 6A.23.4(d) provides that:

> *Prices for prescribed common transmission services must be on a postage-stamp basis.*

Clauses 6A.23.4(j) provides that:

> *Prices for recovering the adjusted non-locational component of prescribed TUOS services must be on a postage-stamp basis*.

The term "postage-stamp basis" is defined in the NER as:

> *A system of charging Network Users for transmission service or distribution service in which the price per unit is the same regardless of how much energy is used by the Network User or the location in the transmission network or distribution network of the Network User.*

6.2 Relevant "general principles"

It is considered that the AER should address the requirements of the NER in relation permitted postage-stamp pricing structures for prescribed common transmission services and the recovery of the adjusted non-locational component of providing prescribed TUOS services having particular regard for the following "general principles" discussed in section 3 of this report:

- *"Broad acceptability" of current pricing* – As discussed in section 3.3(a), the AEMC stated in its Rule Determination that the development of Part J of the NER was based on "confirming the broad acceptability of the approach to pricing in the existing Rules". This is consistent with the fact that:

  - Part C of the Chapter 6 of the old NER specified that the TUOS general price and the transmission customer common service charge should both be postage-stamped; and

  - Part J of the new NER requires postage-stamp prices to be applied both to prescribed common transmission services and the recovery of the adjusted non-locational component of providing prescribed TUOS services.

  This suggests that the AEMC did not necessarily contemplate a change to the current postage-stamp pricing approach for these services under which a TNSP:

  - Calculates an energy based price and a capacity based price; and

  - Applies the price that results in the lowest charge for each connection point for the financial year.

- *Not all prices are intended to provide the same price signals* – As discussed in section 3.3(i), the AEMC's Rule Determination states that it does not intend prices for prescribed common transmission services and non-locational prescribed TUOS services to send "locational investment and network usage signals". In particular, the AEMC indicated that this means that a TNSP's postage-stamp prices need not simply be based on demand.

- *Nature of postage-stamping* – As discussed in section 3.3(k), the AEMC's Rule Determination stated that:

  > *In the Commission's view, the appropriate type of postage-stamping needs to reflect a balance of both:*
  >
  > - *the importance of minimising the disincentive on Transmission Network Users to utilise the (existing sunk) network; and*

- _the importance of signalling the potential future impact of load growth on the need to invest in transmission or transmission alternatives._

In other words, the pricing structure needs to balance the demands of static efficiency and dynamic efficiency.

Again, this suggests that the AEMC did not necessarily contemplate a change to the current postage-stamp pricing approach for these services, which applies either energy or capacity prices depending on which results in the lowest charge to the user. This approach provides signals to users to manage their consumption so as to reduce their maximum demand and therefore reduce their demand-based charges. This will encourage:

- The efficient use of the existing network; and
- TNSPs to invest efficiently in augmenting their network in response to increases in demand to the extent that users are efficiently using the existing network.

- _Consistency and stability_ – As noted in section 3.3(d), the AER's requirement under the NER to have regard for the "desirability of consistent pricing structures" does not necessarily mean that TNSPs' prices need to be identical or that the AER needs to impose a mandatory price structure.

  The requirements of Part C of Chapter 6 of the old NER mean that TNSPs currently price their prescribed common transmission services and non-locational prescribed TUOS services on a consistent basis, although the units that they apply differ slightly.

  In their submission on the AER's Issues Paper:

  - The Major Energy Users Group supported the application of consistent pricing approaches across the NEM, albeit that it proposed charging for prescribed common transmission services and non-locational prescribed TUOS services on the basis of demand; and
  - ETNOF, EnergyAustralia and VENCorp all proposed retaining the current consistent approach to pricing prescribed common transmission services and non-locational prescribed TUOS services.

  There was therefore general support from the submissions for a consistent approach being applied to these services, albeit that the Major Energy Users Group wanted a new approach to apply.

  As well as providing consistency, retaining the current approach would also promote price "stability". This is considered particularly important to the AER's consideration of permitted pricing structures given that it has no real ability to assess the impacts of changes to price structures without significant input from TNSPs. This suggests that the AER should:

- Restrict the permitted pricing structures in its pricing methodology guidelines in order to promote consistency; but
- Provide an ability for TNSPs to manage price shocks to customers either by adopting a permitted pricing structure or by proposing an alternative pricing structure that complies with the requirements of the NER.

6.3 Permitted pricing structures

As noted in section 3.3(k), the AEMC did not specify in the NER a particular basis for postage-stamping. Rather, it left the AER to approve postage-stamp pricing structures having regard for the desirability of consistency and their impacts on static and dynamic efficiency.

It is considered that the AER should include the current pricing structures for prescribed common transmission services and non-locational prescribed TUOS services as permitted pricing structures in its pricing methodology guidelines, but enable a TNSP to propose alternative structures if they can be justified under the NER. This approach, which incorporates "Postage stamp option 1" in the AER's Issues Paper, involves the TNSP calculating energy and capacity based prices and applying the price that results in the lowest charge to the user. Users without an agreed maximum demand (who it is understood generally have significant variability in their consumption) would be charged on an energy basis.

It is considered that retaining the current approaches will:

- Promote consistency of pricing structures across the NEM;
- Provide signals to encourage users to manage their consumption so as to reduce their maximum demand and therefore reduce their demand-based charges. This will therefore encourage the efficient use of the existing network;
- Provide signals for TNSPs to invest efficiently in the augmentation of their network to the extent that users are optimising their use of the existing network. This said, it is considered that the proposed basis for pricing the locational component of prescribed TUOS services will provide stronger pricing signals to promote dynamic efficiency given that it is based purely on maximum demand (not energy);
- Recognise that not all prices are intended to provide the same price signals and so avoid "over-signalling" prices;

- Allow innovation by enabling a TNSP to justify an alternative pricing approach under the NER if the TNSP considers it warranted; and
- Promote stability by allowing a TNSP to retain its existing pricing structure.

7 Attribution of transmission system assets

This section examines the types of transmission system assets that the pricing methodology guidelines should treat as being directly attributable to each category of prescribed transmission services.

7.1 Relevant provisions of the NER

Clause 6A.25.2(d) of the NER requires that the AER's pricing methodology guidelines must specify or clarify:

> *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.*

The categorisation of assets is used for the purposes of determining the attributable cost share and the attributable connection point cost share for each service category. The attributable cost share is used to allocate the AARR to determine the ASRR for each service category and the attributable connection point cost share is used to allocate the ASRR for each service category.

Clause 6A.22.3(a) of the NER states that:

> *For a Transmission Network Service Provider for a category of prescribed transmission services, the attributable cost share for that provider for that category of services must, subject to any adjustment required under the principles in clause 6A.23.2, substantially reflect the ratio of:*
>
> *(1) the costs of the transmission system assets directly attributable to the provision of that category of prescribed transmission services; to*
>
> *(2) the total costs of all the Transmission Network Service Provider's transmission system assets directly attributable to the provision of prescribed transmission services.*

Clause 6A.22.4(a) of the NER states that:

> *For a Transmission Network Service Provider for prescribed entry services and prescribed exit services, the attributable connection point cost share for that provider for each of those categories of services must substantially reflect the ratio of:*
>
> *(1) the costs of the transmission system assets directly attributable to the provision of prescribed entry services or prescribed exit services, respectively, at a transmission network connection point; to*

(2) *the total costs of all the Transmission Network Service Provider's transmission system assets directly attributable to the provision of prescribed entry services or prescribed exit services, respectively.*

7.2 Relevant "general principles"

It is considered that the AER should specify the types of transmission assets that are directly attributable to each service category having particular regard for the following "general principles" discussed in section 3 of this report:

- *"Broad acceptability" of current pricing* – As discussed in section 3.3(a), the AEMC stated in its Rule Determination that the development of Part J of the NER was based on "confirming the broad acceptability of the approach to pricing in the existing Rules".

  This suggests the AER's pricing methodology guidelines should not introduce major changes to the current basis on which TNSPs' price their prescribed transmission services unless there is a good reason for doing so. This is the case despite Part J of chapter 6A of the NER not incorporating the provisions of schedule 6.2 of the old chapter 6 that detailed the types of assets that relate to each category of prescribed transmission service. Rather, Part J leaves it to the AER to determine in its pricing methodology guidelines the types of assets that are directly attributable to each service category.

- *Nature of "directly attributable"* – the term "directly attributable" is not a defined term in the NER although, as noted in clause 3.3(l), the AEMC's Rule Determination says that "it refers to assets that are used or required to provide the relevant pricing category of prescribed transmission services"[31].

  The AER could attribute assets between service categories either:

  - By developing a list of assets for each service category – this is the approach that it took in its Issues Paper and would continue the approach from Schedule 6.2 of the old NER that the TNSP's currently apply. EnergyAustralia and ETNOF (with minor qualifications) supported the continuation of this approach in their submissions in response to the AER's Issues Paper; or

  - By applying an "exclusion" based approach as suggested by the Major Energy User Group in their submission to the AER. It argued that:

[31] AEMC, op cit, page 34

- *Entry and exit assets should be defined as those assets which can be removed from a connection point to the shared network without impacting consumers connected at other points of the network*

- *Common services should be defined as those assets which cannot be removed without impacting every consumer connected to the network*

- *An entry is where energy is injected into the network and an exit is where energy is extracted from the network.*[32]

- *Consistency* – The requirements of schedule 6.2 of the old NER mean that TNSPs currently attribute assets between service categories on a consistent basis. By endorsing the retention of this approach ETNOF and EnergyAustralia also endorsed retaining consistency between TNSPs.

  The Major Energy Users Group also strongly supported the application of consistent pricing approaches across the NEM in their submission on the AER's Issues Paper. Indeed they said that "The Guidelines must be developed so that not only are the pricing structures consistent across the NEM, but that the derivation of the inputs to the pricing is consistently applied by all TNSPs"[33].

  There was therefore strong support in the submissions for a consistent approach being applied by TNSPs to attributing assets between service categories, albeit that the Major Energy Users Group advocated an alternative approach to what is currently applied and was endorsed by the TNSPs.

- *Stability and predictability* – As noted in section 3.3(d), the AER's Rule Determination indicated that transmission pricing should promote "stability and predictability" in order to give effect to the NEM objective.

  The AER would promote stability and predictability by retaining the current allocation approach as proposed in its Issues Paper. However, it has no real ability to assess or understand on the basis of the submissions it received on its Issues Paper what would be the price impacts of applying an alternative approach, such as that suggested by the Major Energy Users Group.

  Assessing the impacts of an alternative approach would require significant input from TNSPs and has not been undertaken for the purposes of preparing this report.

[32] Major Energy Users Group, op cit, page 6
[33] Ibid, pages 5-6

- _Innovation_ – The AEMC's Rule Determination identified the benefits of providing opportunities for innovation in the pricing of prescribed transmission services. While ETNOF and EnergyAustralia did not indicate any interest in changing their current allocation approach, it is considered that the pricing methodology guidelines should provide this flexibility in the future.

  This suggests that the AER should allow a TNSP to propose an alternative asset allocation approach in the future if it considers that it would attribute costs more appropriately, having regard for the requirements of the NER.

7.3 Categorisation of assets

Network Advisory Services has not been able to assess the merits of the Major Energy User Group's alternative asset allocation proposal in preparing this report. This is because it is not clear from the Major Energy User Group's submission:

- How practical it would be for the TNSPs to implement;
- What the costs would be for the TNSPs of its implementation; and
- What impacts the approach would have on the TNSPs' prices for each service category, compared with the current allocation approach.

An assessment of this kind would require significant input and cooperation from TNSPs. This report therefore cannot recommend that the AER incorporate the Major Energy User Group's approach into the pricing methodology guidelines.

Instead, it is recommended that the AER retain the approach that it detailed in its Issues Paper, which was based on schedule 6.2 of the old chapter 6. A TNSP should be able to propose an alternative allocation of assets if it can be justified under the NER, including that proposed by the Major Energy Users.

It is considered that retaining the current approach will:

- Reflect the AEMC's view about the "broad acceptability" of the current pricing arrangements;
- Promote consistency of pricing structures across the NEM by having a single basis of allocating assets, unless a TNSP proposes, and the AER approves, an alternative arrangement under the NER;
- Promote stability and predictability by allowing all TNSPs to continue to apply their current asset allocation approaches, as reflected in the pricing methodology guidelines; and

- Allow innovation by enabling a TNSP to justify an alternative allocation approach under the NER if the TNSP considers it warranted.

8 Disclosure of information

This section examines the basis on which the AER will refrain from publicly disclosing information included in a TNSP's pricing methodology without the consent of the TNSP.

8.1 Relevant provisions of the NER

Clause 6A.25.2(e) of the NER requires that the AER's pricing methodology guidelines must specify or clarify:

> *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.*

The term "confidential information" is defined in chapter 10 of the NER as:

> *In relation to a Registered Participant or NEMMCO, information which is or has been provided to that Registered Participant or NEMMCO under or in connection with the Rules and which is stated under the Rules, or by NEMMCO, the AER or the AEMC, to be confidential information or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.*

8.2 Relevant "general principles"

As noted in clause 3.3(e) of this report, the AEMC's Rule Determination states that "the price-setting process should be as transparent as practicable so that participants retain confidence in the regulatory arrangements and are able to make locational and consumption decisions on an informed basis"[34].

Given this, and that the AEMC considers "transparency" to be important to "promote good regulatory practice"[35] and to further the NEM Objective, the AER should seek to promote this outcome through its pricing methodology guidelines.

8.3 Restrictions on public disclosure

Clause 6A.25.2(e) of the NER recognises that it may not be appropriate to disclose publicly all of the information that the AER may receive in a TNSP's pricing methodology. The AER suggested in its Issues Paper that its pricing methodology guidelines could:

---

[34] Ibid, page 10
[35] Ibid, page 11

- Provide for it not disclosing information that it has classified as “confidential information”, where this is a defined term under the NER; and

- Allow a TNSP to request the AER to consider classifying information as “confidential information”.

It appears restricting the public disclosure of information by applying the term “confidential information” as defined in the NER may not be appropriate given that it does not appear to relate to information that is provided to the AER, but rather only to a Registered Participant and NEMMCO. However, this need not prevent the AER from agreeing to refrain from publicly disclosing information that it considers to be confidential or commercially sensitive (i.e. outside of any definitions used in the NER) for the purposes of clause 6A.25.2(e) of the NER.

Confidential or commercially sensitive information for the purposes of a TNSP’s pricing methodology is likely to include details of, or information that could readily be used to infer, an individual customer’s price, premises, negotiated discounts, prudential requirements or other commercial arrangements relating to its supply.

The disclosure of this information has the potential to impact adversely the commercial interests of either a TNSP or an individual customer.

As a result, it is considered that the pricing methodology guidelines should:

- Require the TNSP to provide the AER with a version of its pricing methodology for publication and a confidential version of its pricing methodology that clearly identifies any information that the TNSP considers should be treated as confidential;

- Require the TNSP to:

  - Present its pricing methodology in a way that limits the inclusion of confidential or commercially sensitive information that it considers should not be publicly disclosed without its approval; and

  - Justify to the AER why it considers that any information that it includes in its pricing methodology is confidential or commercially sensitive and should not be publicly disclosed.

- Give the above examples of what the AER may consider to be confidential or commercially sensitive information for the purposes of a TNSP’s pricing methodology, although these examples need not limit the types of information that may be treated as such; and

- Require the AER explicitly to approve information not being publicly disclosed on the basis of a request from the relevant TNSP.

9 Recommendations

This section summarises the recommendations made in sections 4 to 8 of this report in relation to the five matters that the AER must address under clause 6A.25.2 of the NER in its pricing methodology guidelines.

9.1 Information requirements

It is recommended that the AER's pricing methodology guidelines should require a TNSP's pricing methodology to explain the mechanics of how its AARR would be allocated and how prices would be structured for each service category. This should including information in relation to:

- The nature of the AARR;
- The allocation of the AARR between service categories;
- The allocation of the ASRR between connection points;
- The price structures to be applied for different service categories; and
- The prices for the locational component of prescribed TUOS services.

It is recommended that a TNSP's proposed pricing methodology should include information that details:

- Whether there are multiple TNSPs or there is a single TNSP for a region;
- How the proposed pricing methodology gives effect to, and is consistent with, the pricing principles in clause 6A.23 of the NER;
- How the proposed pricing methodology complies with the requirements of the pricing methodology guidelines;
- How the TNSP intends recovering discount amounts relating to prudent discounts;
- The TNSP's billing arrangements;
- The TNSP's prudential requirements;
- Why certain information should not be publicly disclosed without its consent;
- The proposed date on which the pricing methodology will commence; and
- Proposed revisions from the pricing methodology applied in the previous regulatory control period.

9.2 Permitted pricing structures – locational

It is recommended that the AER's pricing methodology guidelines include two permitted pricing structures for the recovery of the locational component of prescribed TUOS services.

First, a user's charge could be based on the higher of the contracted maximum demand as reflected in its customer connection agreement and its actual maximum demand for a defined period, for example the previous 12 months.

Secondly, a user's charge could be based on the average of the 10 highest system maximum demand days in the previous 12 months.

It is also recommended that a TNSP should be able to propose alternative structures for these services if they can be justified under the NER.

9.3 Permitted pricing structures – postage-stamp

It is recommended that the AER's pricing methodology guidelines include the current pricing structures for prescribed common transmission services and non-locational prescribed TUOS services as permitted pricing structures. This involves the TNSP calculating energy and capacity based prices and applying the price that results in the lowest charge to the user. Users without an agreed maximum demand (who generally have significant variability in their consumption) would be charged on an energy basis.

It is also recommended that a TNSP should be able to propose alternative structures for these services if they can be justified under the NER.

9.4 Attribution of transmission system assets

It is recommended that the AER's pricing methodology guidelines retain the approach to the attribution of transmission system assets that is detailed in its Issues Paper, which was based on schedule 6.2 of the old chapter 6.

It is also recommended that a TNSP should be able to propose an alternative allocation of assets if it can be justified under the NER.

9.5 Disclosure of information

It is recommended that the AER's pricing methodology guidelines should:

- Require the TNSP to provide to the AER a version of its pricing methodology for publication and a confidential version of its pricing methodology that clearly identifies any information that the TNSP considers should be treated as confidential;

- Require the TNSP to limit the inclusion of confidential or commercially sensitive information in its pricing methodology and justify to the AER why it considers that any such information that is included should not be publicly disclosed;

- Give examples of the types of information the AER may consider treating as confidential or commercially sensitive; and

- Require the AER explicitly to approve information not being publicly disclosed on the basis of a request from a TNSP.