Final Decision

Connection charge guidelines: under chapter 5A of the National Electricity Rules

For retail customers accessing the electricity distribution network

20 June 2012

AUSTRALIAN ENERGY REGULATOR

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Contents

Shortened forms

AER	Australian Energy Regulator
Capex	Capital expenditure
CEC	Clean Energy Council
CPI	Consumer Price Index
Chapter 5A	Draft chapter 5A of the National Electricity Rules
DNSP	Electricity Distribution Network Service Provider
EWON	Energy and Water Ombudsman NSW
EWON	Energy and Water Ombudsman Vic
IPART	Independent Pricing and Regulatory Tribunal of NSW
JEN	Jemena
kVA	1000 volt-Ampere (VA): A unit for measuring apparent power in an electrical circuit. The real power (active power) in kilo-watts (kW) equals kVA times the power factor of the circuit.
MEU	Major Energy Users
MVA	mega-Volt-Ampere = 1 000 000 VA, or 1000 kVA
NECF	National Electricity Customer Framework
NEL	National Electricity Law
NER	National Electricity Rules
RAB	Regulatory asset base
SAC	Standard Asset Customer, a term used by Energex of Queensland
SWER	Single wire earth return line, high voltage distribution line mainly used in rural areas
UED	United Energy Distribution
WACC	Weighted average cost of capital

I. Summary of the final decision on the connection charge guidelines

Under chapter 5A of the National Electricity Rules (NER) the AER is required to develop and publish connection charge guidelines to guide the development of connection policies by DNSPs. DNSPs will be required to develop their connection policies for approval by the AER, consistent with the principles set out in clause 5A.E.1 of the NER and the AER's guidelines. A DNSP's connection policy sets out the circumstances in which connection charges are payable and the basis for determining the amount of those charges.

Main features of the AER's connection charge guideline

- Typically, new houses and small business will pay for the necessary extension work from the existing power line to their premises. In some or most instances, there would not be an upfront charge because the DNSP has chosen to recover this connection cost as part of the network tariff, which forms part of the monthly or quarterly electricity bill.

- Larger customers (typically consuming more than 100Amperes, 3-phase supply in urban area and more than 25kVA in rural area), may need to pay for both the necessary extension work and a share of the cost of upgrading the capacity of the existing network. The precise threshold levels, which determine how large customers are defined for this purpose, will be set out by each DNSP in their connection policy, which must be approved by the AER.

- Very large consumers, such as a factory, may need to pay for the necessary upgrading of the existing network upstream from the connection point to the network.

- In NSW, where provision of connection work is contestable, new customers will engage and pay for their own Accredited Service Providers to install the new connection assets (extension or upgrading of the network). In this case there is no separate connection charge payable to a DNSP, either as an upfront charge or through their regular electricity bill.

Residential customers and small business will pay an upfront connection charge which is:

- the difference between the necessary cost for extending the existing power line to the premise and the "net present value" of the distribution network tariff that is paid by the customer for the next 30 years for residential users (typically 15 years for business users);

or

- at the rate set by the AER for each 5 year regulatory control period, where the AER consider this method is more appropriate.[1]

Larger customers (typically consuming more than 100 Amperes, 3-phase supply in urban area and more than 25kVA in rural area), pay:

[1] As alternative control service, refer page 15.

- the network extension cost as above; and
- the share of the cost for upgrading the capacity of the existing network at the relevant rates approved by the AER for each 5 year regulatory control period.

In conjunction with the publication of the connection charge guideline, the AER will also publish a factsheet, which provides an overview of when upfront connection charges may be payable by new customers for connecting electricity to their premises and how these charges are typically calculated. This factsheet is intended to explain in a non-technical manner how the connection charge frameworks would work under the AER's connection change guidelines.

Requirements under chapter 5A of the NER

The connection charge guidelines should:

- consider the efficient costs of providing connection services
- provide user-pay signals and limit the level of cross subsidisation without imposing undue administrative cost
- be competitively neutral for connection services that are contestable
- set a threshold, below which retail customer will not be required to make capital contribution towards upstream shared network augmentation costs.

Connection charge guideline - outline:

- The connection charge guidelines recognise that, while connection charges are regulated under chapter 5A, this is complimentary to the AER's role in classifying services in accordance with clause 6.2 of the NER. Accordingly, the guidelines can be applied to connection services regardless of the service classification.
- The total upfront connection charge is calculated as the sum of (where applicable) a capital contribution to standard control services, alternative control service charges and a contribution to the pioneer scheme.
- A cost-revenue-test is to be applied to standard control services to calculate the capital contribution charge. The AER considers that standard control services, which are generally recovered through an average charge on electricity usage, do not always meet the principles of chapter 5A. In particular, they lack user pays signals with respect to the costs of the specific connection services required by connection applicants and may result in cross subsidisation of that connection applicant. The cost-revenue test is required to determine whether an additional upfront capital contribution is required in order to improve user pays signals and reduce the level of cross-subsidies between customers. The cost-revenue-test will result in an additional capital contribution for standard control connection services if the cost of connecting a customer is greater than the anticipated level of revenue the DNSP will receive from that customer.
- For services classified as alternative control services, negotiated distribution services or unclassified distribution services, the form of control, or negotiation framework for negotiated services, will be approved by the AER at each distribution determination. The AER has not imposed specific conditions on these services in the connection

charge guideline because the AER considers the service classification process will result in connection charges meeting the principles of Chapter 5A. Unlike standard control services, the AER does not consider a cost-revenue-test need be applied to these services.

- The AER recognises that different parts of a DNSP's network may have been built to different standards (for example to cope with different capacity requirements) and that the level of additional load that the network could reasonably be expected to cope with may also vary. Accordingly, the AER will allow different thresholds in each distinct area of the network to account for these historical and geographical differences. The AER considers that the following levels of customer demand would meet the principles for setting such thresholds in most circumstances:
  - 25 kVA on single wire earth return lines (SWER).
  - The maximum capacity of a 100 Ampere 3 phase low voltage supply, elsewhere in the distribution network.
- The connection charge guidelines generally attempt to avoid the situation where the last customer who triggers an augmentation will have to bear the full cost of that augmentation. All connection applicants contribute to the need to augment the network and so it may not be equitable for the last customer to bear the full cost. The AER's connection charge guidelines attempt to avoid this situation through the use of a unitised shared network augmentation charge, so that all new customers contribute to the shared network equally according to actual demand. However, the AER recognises there may be circumstances where it is appropriate for a very large customer to contribute to identifiable shared network augmentation triggered by the customer. Accordingly, if augmentation to the shared network is classified as an alternative control service (and has a compatible form of control applied), negotiated distribution service, or is an unclassified distribution service, the connection charge guidelines allow DNSPs to charge customers who trigger an augmentation. However, the customer should only pay for its share of the capacity requirement if a DNSP deems that a larger augmentation will be necessary in order to meet future known demand.
- The AER considers that, where the class of customers receiving a particular basic or standard connection offer have substantially the same characteristics, the DNSP may choose to levy a pre-determined capital contribution. This will allow DNSPs to streamline the application of the cost-revenue-test and reduce any administration costs. DNSPs are not required to levy a pre calculated capital contribution if they do not consider it appropriate for a particular class or classes of customer.
- In most circumstances a DNSP will be able to require the entire connection charge be prepaid. However, where a connection offer for a connection service is accepted substantially in advance of the connection work occurring, or where the connection service involves a large project that has reasonably distinct construction stages, the AER considers that charging the full amount as a prepayment is not appropriate. In these cases, the time at which the customer is charged should be more closely tied to the time when the cost is incurred, or a business decision to incur a sunk cost is made.

- The AER considers that requiring a customer to fund the full cost of an extension may result in a first mover disadvantage and that this disadvantage may distort investment and impede the development of new areas of the electricity network. The AER considers that the pioneer (refund) scheme is intended to remove this distortion and ensure that all customers connecting to a new area contribute equitably to the costs of extending the distribution network. Accordingly, the AER considers that a pioneer scheme must consider the relative usage of the network of the initial customers and subsequent customers when calculating the appropriate manner to share the costs.

- If a DNSP fairly and reasonably assesses that there is a high risk that the DNSP may not earn the estimated incremental revenue expected from the connection applicant, the DNSP may require a security fee. The amount of the security fee must not be greater than the amount of the incremental revenue which the DNSP assesses as having a high risk of not being recovered.

- The capital contribution for non-registered embedded generators that are also load customers will be calculated based on the total cost of the works required to support both the generation (expected electricity output) and load components of the connection service.

    - Non-registered embedded generators which seek to remove a specific network constraint should pay for the cost of removing the constraint, except where a DNSP's normal asset management may lead to a DNSP funding such shared network augmentation.

- The AER considers that in most circumstances a real estate developer may be treated in the same manner as any other connection applicant. In particular:

    - A real estate developer's incremental revenue is the estimated revenue that a distribution network service provider will receive from all the sites/connection services within a real estate development.

    - Real estate developers are entitled to access a pioneer scheme for extension assets they fund unless the real estate developer and DNSP agree otherwise. Such pioneer schemes would apply to connection applicants connecting to the extension assets outside the pioneer developer's site boundary and not to premises connecting within the development.

- DNSPs will need to ensure that capital contributions or gifted assets are treated in a manner which does not allow them to receive a regulated rate of return on assets that have not incurred a capital cost.

II. Introduction

Under chapter 5A, the AER is required to develop and publish connection charge guidelines, for the development of connection policies by Electricity Distribution Network Service Providers (DNSPs). DNSPs will be required to develop their connection policies for approval by the AER consistent with the principles set out in clause 5A.E.1 and the AER's guidelines. Connection policies set out the circumstances in which connection charges are payable and the basis for determining the amount of those charges.

The connection charge guidelines are part of the framework for the development of connection policies by DNSPs regarding capital contributions for new or upgraded connections to distribution networks by retail customers. A DNSP's connection policy must be consistent with these guidelines. This decision paper provides an overview of, and reasons for, the AER's connection charge guidelines.

In some circumstances, connection services are offered in a contestable environment by a number of possible service providers. Where this is the case, no specific or additional regulation is appropriate. However, in many circumstances, DNSPs are regulated monopolies with respect to the provision of connection services and connection assets, and additional guidance regarding reasonable connection charges may be appropriate. The connection charge guidelines can be flexibly applied to each case to ensure an outcome which complies with the requirements of chapter 5A. The connection charge guidelines describe how and in what cases a DNSP can recover connection costs from a connecting customer. These charges are separate to the charges for use of the network on an on-going basis.

Types of connection offers

Under chapter 5A, DNSPs must obtain approval from the AER for at least one type of basic connection offer. DNSPs may also propose standard connection offers to small classes of new customers for less common types of connections. The model terms and conditions of DNSPs' basic and standard connection offers must be approved by the AER in advance. The types of basic and standard connection offers of each DNSP will cover most new customers seeking to connect to the electricity network.

Less common types of new connections will be offered under the negotiated connection framework of chapter 5A. In addition, customers not satisfied with the model terms and conditions of a DNSP's basic and standard connection offers may also seek to negotiate their individual connection contracts with the DNSP.

Legislation

Two Bills, the National Energy Retail Law (South Australia) Bill 2010 and the Statutes Amendment (National Energy Retail Law) Bill 2010, were introduced to the Parliament of South Australia on 27 October 2010. The National Electricity (Retail Connection) Amendment Rules 2010 enables the introduction of a new chapter 5A—Electricity connection for retail customers—to the NER.

The Ministerial Council on Energy (now Standing Council on Energy and Resources) announced that the AER may commence the development and consultation process in time for the target NECF implementation date of 1 July 2012, despite the legislative process not being complete at the time of the announcement. Activities carried out by the AER in accordance with NECF requirements prior to the NECF commencement (such as

consultation, making instruments and decision-making) will be supported by appropriate transitional provisions enacted by participating jurisdictions to ensure instruments and decisions are validly made under the National Electricity Law and Rules and take effect on commencement of the NECF.

In this paper, and the connection charge guidelines, a reference to chapter 5A refers to the draft chapter 5A as it is set out in the National Electricity (Retail Connection) Amendment Rules 2010.

Purpose of the connection charge guidelines

Chapter 5A provides that the purpose of the guidelines is to ensure that connection charges:

- are reasonable, taking into account the efficient costs of providing the connection services arising from the new connection or connection alteration and the revenue a prudent operator in the circumstances of the relevant DNSP would require to provide those connection services
- provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the connection services
- limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer
- are competitively neutral, if the connection services are contestable.

Scope of the connection charge guidelines

Under chapter 5A, the guidelines must:

- describe the method for determining charges for premises connection assets
- describe the circumstances (or how to determine the circumstances) under which a DNSP may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer for the provision of a connection service
- describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined
- establish principles for fixing a threshold (based on capacity or any other measure the AER thinks fit) below which retail customers (not being a non-registered embedded generator or a real estate developer) are exempt from any requirement to pay connection charges (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an augmentation (other than an extension) to the distribution network necessary to make the connection
- describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge
- describe the method for calculating:

- the amount of a refund of connection charges for a connection asset when an extension asset originally installed to connect the premises of a single retail customer is used, within 7 years of its installation, to connect other premises and thus comes to be used for the benefit of 2 or more retail customers

- the threshold below which the refund is not payable

- describe the treatment of augmentation assets.

In developing the guidelines, the AER must have regard to: historical and geographical differences between networks; inter-jurisdictional differences related to regulatory control mechanisms, classification of services and other relevant matters; and the circumstances in which connection services may be provided by persons other than DNSPs (and are therefore contestable).

Application of the connection charge guideline

Consistent with the connection charge principles set out in chapter 5A and the AER's connection charge guidelines, each DNSP must submit, in accordance with the proposed clause 6.7A of the NER, its proposed connection policy for approval by the AER. The connection policy must specify:[2]

(i) the categories of persons that may be required to pay a *connection charge* and the circumstances in which such a requirement may be imposed; and

(ii) the aspects of a *connection service* for which a *connection charge* may be made; and

(iii) the basis on which *connection charge*s are determined; and

(iv) the manner in which *connection charge*s are to be paid (or equivalent consideration is to be given); and

(v) a threshold (based on capacity or any other measure identified in the *connection charge guidelines*) below which a *retail customer* (not being a *non-registered embedded generator* or a *real estate developer*) will not be liable for a *connection charge* for an *augmentation* other than an *extension*.

A connection service may be either a service relating to a new connection or a connection alteration. DNSPs must charge customers in accordance with their policy.

Transitional provisions

The AER notes that each jurisdiction may choose to transition to the chapter 5A framework as it sees fit or may choose to derogate away from some or all requirements of chapter 5A.

At the time these connection charge guidelines were published, enabling legislation and anticipated transitional provisions had not been passed. However, the AER understands that each jurisdiction intends to legislate to give effect to the transitional arrangements for the

[2] Clause 6.7A.1(b)(2).

implementation of chapter 5A, including the application of the connection charge principles of chapter 5A.

It is most likely that the AER's connection charge guidelines will first be implemented when DNSPs submit their connection policies as part of each DNSP's next distribution pricing proposal, which will be lodged after the commencement of chapter 5A on 1 July 2012. Accordingly, the existing capital contribution rules of each state jurisdiction will be maintained for the remainder of the current regulatory control period, after which chapter 5A will apply. The current regulatory control periods finish at the following dates:

- ACT– July 2014
- New South Wales– July 2014
- South Australia– July 2015
- Queensland– July 2015
- Victoria– January 2016
- Tasmania– July 2017.

Connection charge principles

Chapter 5A sets out that a DNSP's connection policies must be consistent with the connection charge principles. Under clause 5A.E.1 of the NER, the connection charge principles are:

> (b) A retail customer (other than a non-registered embedded generator or a real estate developer) who applies for a connection service for which an augmentation is required cannot be required to make a capital contribution towards the cost of the augmentation (insofar as it involves more than an extension) if:
>
> 1. the application is for a basic connection service; or
> 2. a relevant threshold set in the Distribution Network Service Provider's connection policy is not exceeded.
>
> Note In general, the intention is to exclude deep system augmentation charges for retail customers.
>
> (c) Subject to paragraph (b), in determining connection charges in accordance with its connection policy, a Distribution Network Service Provider must apply the following principles:
>
> 1. if an extension to the distribution network is necessary in order to provide a connection service, connection charges for the service may include a reasonable capital contribution towards the cost of the extension necessary to provide the service;
> 2. if augmentation of premises connection assets at the retail customer's connection point is necessary in order to provide a connection service, connection charges for the service may include a reasonable capital contribution towards the cost of the augmentation of premises connection assets at the connection point necessary to provide the service;

3. if augmentation of the distribution system is necessary in order to provide a standard connection service, connection charges for the service may include a reasonable capital contribution towards the cost of the augmentation necessary to provide the service;

4. if augmentation of the distribution system is necessary in order to provide a connection service under a negotiated connection contract, connection charges for the service may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of augmentation of the distribution system to the extent necessary to provide the service and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast load growth;

5. despite subparagraphs (1) to (4) if augmentation of the distribution system is necessary in order to provide, on the application of a real estate developer, connection services for premises comprised in a real estate development, connection charges for the services may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of augmentation of the distribution system to the extent necessary to provide the services and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast load growth;

6. however, a capital contribution may only be required in the circumstances described in subparagraphs (1) to (5) if provision for the costs has not already been made through existing distribution use of system charges or a tariff applicable to the connection.

(d) If:

1. a connection asset ceases, within 7 years after its construction or installation, to be dedicated to the exclusive use of the retail customer occupying particular premises; and

2. the retail customer is entitled, in accordance with the connection charge guidelines, to a refund of connection charges;

the Distribution Network Service Provider must make the refund, and may recover the amount of the refund, by way of a connection charge, from the new users of the asset.

(e) For the purposes of paragraph (d), a person is taken to be a new user of a connection asset if the asset comes to be used to provide a connection to that person's premises

(f) For the purposes of this clause capital contribution includes a prepayment or financial guarantee.

III. Overview of regulatory regime

This section provides an overview of the broader regulatory environment in which the connection charge guidelines operate. It explains how the methods of calculating connection charges may need to differ for different customers, service classifications and locations.

Service classification

DNSPs' efficient expenditure and cost of capital are determined by the AER under distribution price control determinations every five years. As part of this process, the AER's role includes deciding upon the classification of distribution services and the form of control to apply to these distribution services. This determines the form of economic regulation that is to be applied to the distribution services offered by a monopoly service provider.

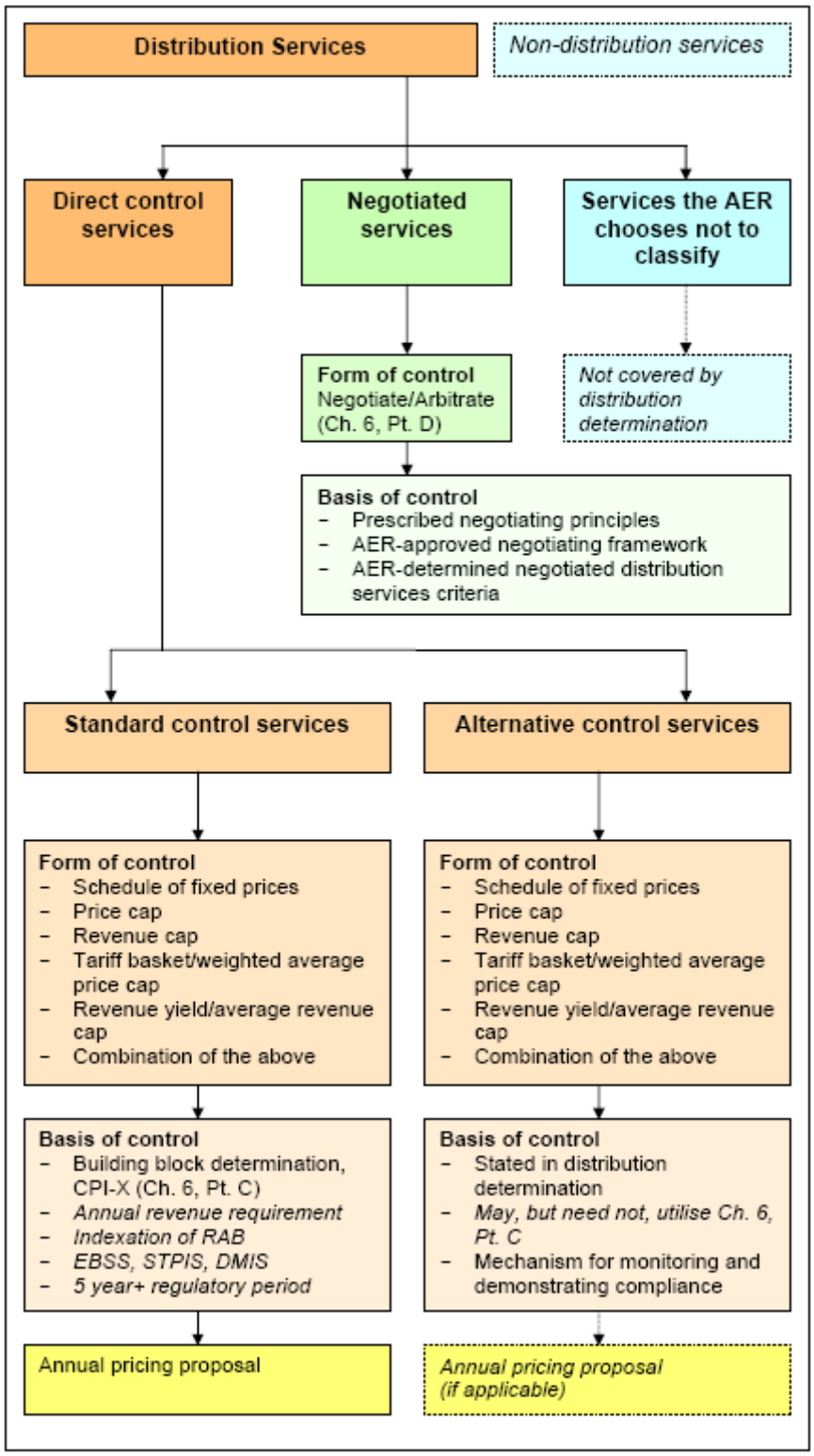
The AER may decide to classify a distribution service under clause 6.2 of the NER, or has the discretion not to classify the distribution service. Service classification occurs at two levels:

1. the AER may choose to classify a distribution service as:
    i. a direct control service, or
    ii. a negotiated distribution service.
2. where the AER classifies a distribution service as a direct control service it must further classify it as either:
    i. a standard control service, or
    ii. an alternative control service.

Additionally, in some jurisdictions, or for some DNSPs, portions of the work required for a connection are not a distribution service, because it is not offered by the DNSP. In these circumstances this connection service would not be subject to regulation under chapter 6 of the NER.

The classification of a service determines what form of control can be applied to that service and what the basis for the control mechanism will be, and this in turn will determine how the service and costs associated with providing the service are to be recovered from customers or treated in a distribution determination. This is illustrated in Figure 1 below.

Figure 1.1 Service classification and control mechanisms



Connection services

When determining the classification of a service and form of control for each DNSP ahead of their price or revenue determination (as specified in their framework and approach paper), the AER will examine the way in which connection services are defined. The AER will be seeking to achieve as much consistency as practical in the definition of these connection services. However, the service classification and form of control applied to each connection service may vary, taking account of historical jurisdictional practices and the degree of competition, or likelihood of competition developing, for these services.

The AER considers that a typical connection can be separated into at least four separate connection services, which can be broadly categorised in the following manner:

- Augmentation (insofar as it involves more than an extension)[3]—any augmentation which is not an extension.[4]
- Extension[5]—an augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider.
- Augmentation of premises connection assets at the retail customer's connection point[6]—the AER considers this would include any connection assets located on the retail customers premises.
- Design and administration services—including administration, design, certification and inspection.

The exact nature of these connection services may differ between DNSPs and between different jurisdictions. As such, the AER considers DNSPs will define the specific connection services that they offer within each broad category. DNSPs may propose disaggregating the broad categories outlined above or propose further services as they consider appropriate.[7]

Interaction between service classification and the connection charge guidelines

The AER's connection charge guidelines, published in accordance with chapter 5A of the NER, will complement the AER's role and responsibilities in classifying services. The connection charge guidelines distinguish between different classifications of connection services and forms of control decided upon by the AER in the relevant distribution determinations.

The connection charge guidelines will apply to different service classifications in the following manner:

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3 Clause 5A.E.1(c)(2) of the NER.

4 Augmentation is defined in Section 2 of the National Electricity Law as—Augmentation of a transmission or distribution system to increase its capacity to transmit or distribute electricity.

5 Section 10 of the NER.

6 Clause 5A.E.1(b) of the NER.

7 The AER considers that the nature of an augmentation (insofar as it involves more than an extension) can be different between load customers and embedded generators and considers it likely that these types of augmentations will need to be classified separately.

- capital contributions for unclassified or negotiated services should be determined through good faith negotiation.

- capital contributions for alternative control services should meet the requirements of the specified form of control, as determined by the AER in the relevant distribution determination.

- The cost of standard control services are generally recovered via Distribution Use of System Charges (DUoS charges). Clause 5A.E.1(c)(6) prevents a DNSP from requiring a capital contribution from a customer for a connection service if provision for the cost has already been made through DUoS charges or a tariff applicable to the connection. However, to the extent that provision for the costs has not been made, a capital contribution may be levied. The connection charge guidelines describe the circumstances in which a capital contribution can be required for standard control services as well as describing how the amount is to be determined, the methods for calculating the augmentation component for the connection assets and the extension component of a connection charge and the method for determining charges for premises connection assets. In general, the guidelines describe a cost-revenue-test that applies to these cases. The cost-revenue-test determines whether an upfront capital contribution applies where the incremental cost of the connection is greater than the expected revenue the DNSP will derive from the connection.

Guidance regarding the classification of connection services

The AER's connection charge guidelines do not pre-empt any decision by the AER or bind the AER to apply any particular service classification or form of control as part of a distribution determination.[8] However, the AER anticipates that the following factors may be relevant:

- Where a service is offered in a competitive market, the AER may determine that no regulation of that market is required and so choose not to regulate this particular service.

- If the cost of a connection service can be readily attributed to a particular customer, and the service is not contestable (or there is not a competitive market for the provision of the service), then an alternative control service classification may be appropriate. Augmentation of premises connection assets at the retail customer's connection point, extensions and incidental connection services, might generally fit into this category.

- If the cost of the connection cannot be easily attributed to an individual customer, then a standard control service classification might be appropriate. Augmentation (insofar as it involves more than an extension) might generally fit into this category.

- The AER considers that standard control connection services should be undertaken to the least cost technically acceptable standard. If a DNSP is requested to perform a standard control connection service to a higher standard, then it should propose an

[8] The AER does not consider that the connection charge guideline constitutes a guideline for the purposes of clause 6.2.8 of the NER. This general guidance is only given to provide some clarity on how the connection charge guideline may apply.

additional connection service specifically related to works performed to a higher standard than the least cost technically acceptable standard. It might be appropriate that the provision of connection assets to a standard greater than the least cost technically acceptable standard be classified as either alternative control or negotiated services.

The AER will review the circumstances of each DNSP, in consultation with stakeholders, prior to deciding on the relevant service classification in a distribution determination.

IV. Consultation

In developing the guidelines, the AER undertook the following consultation process:

- The AER published, on 10 June 2011, the C*onsultation Paper: Issues and AER's preliminary positions, Connection charge guidelines: for accessing the electricity distribution network* (issues paper). The issues paper identified a number of issues and alternative options for calculating the connection charge, on which the AER sought stakeholders' opinions.
- In conjunction with the issues paper, the AER also hosted a public forum on 11 July 2011 to explain the issues identified in the issues paper to facilitate stakeholders in preparing their submissions.
- After considering submissions to the issues paper, the AER published draft connection charge guidelines for consultation on 22 December 2011. Sixteen submissions were received by the AER in response to the draft guidelines.
- The AER has considered the submissions received and this paper presents the AER's final decision on the connection charge guidelines.

Submissions

The AER received 16 submissions to the draft guidelines. Submissions were received from:

- ActewAGL
- Ausgrid
- Aurora Energy
- CitiPower and Powercor
- Clean Energy Council
- Endeavour Energy (two submissions)
- Energex
- Ergon Energy
- ETSA Utilities
- Energy and Water Ombudsman New South Wales
- Energy and Water Ombudsman Victoria
- Jemena
- Major Energy Users Inc
- SP AusNet
- United Energy

A summary of the issues raised in these submissions and the AER's responses is included in Appendix A.

1 Shared network augmentation charge threshold

Overall, the AER considers that the purpose of the augmentation charge threshold is generally to exclude retail customers from being charged for deep system augmentation (insofar as it involves more than an extension). However, the AER considers that retail customers who impose a significant and identifiable burden on the network should be required to contribute towards the cost of augmenting the shared network when they connect. The shared network augmentation charge threshold is the mechanism by which those customers who may impose a significant and identifiable burden on the network are identified. The AER recognises that different parts of a DNSP's network may have been built to different standards (for example to cope with different capacity requirements) and that the level of additional load that the network could reasonably be expected to cope with may also vary. Accordingly, the AER will allow different thresholds in each distinct area of the network to account for these historical and geographical differences.

1.1 Legislative requirements

Chapter 5A includes a general intention that excludes deep system augmentation charges for retail customers. Chapter 5A specifically excludes any connection applicant who receives a basic connection offer from making a capital contribution towards the cost of augmentation (insofar as it involves more than an extension) and requires the AER to establish principles for fixing a threshold below which other retail customers would not be required to make such capital contributions. Under clause 5A.E.3(c)(4) the AER's guidelines must:

- establish principles for fixing a threshold (based on capacity or any other measure the AER thinks fit) below which retail customers (not being a non-registered embedded generator or a real estate developer) are exempt from any requirement to pay connection charges (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an augmentation (other than an extension) to the distribution network necessary to make the connection.

Chapter 5A also requires that the principles for establishing the threshold must ensure that the exemption only operates in the following circumstances:

1. the connection is a low voltage connection; and
2. the connection would not normally require augmentation of the network beyond the extension to the distribution network necessary to make the connection; and
3. the connection is not expected to increase the load on the distribution network beyond a level the Distribution Network Service Provider could reasonably be expected to cope with in the ordinary course of managing the distribution network.

1.2 AER final decision

The AER's final decision is to establish the principles set out in section 1 of the guidelines.

In summary:

- All shared network augmentation charge thresholds must be based on a measure of demand and fixed for the duration of the regulatory control period.
- A DNSP may propose a different shared network augmentation charge threshold in each identifiably different area of its network.
- Thresholds should generally exclude augmentation (insofar as it involves more than an extension) charges for retail customers.
- Thresholds should only applies in the circumstance detailed in paragraph 5A.E.3(d) of the NER.
- Threshold should be set such that;
  - connection services below and above the threshold have identifiably different characteristics; or
  - no undue cross subsidies between new connection applicants and existing network users are created.
- When demonstrating that a proposed shared network augmentation charge threshold meets the guidelines, a DNSP may have regard to:
  - The average size of the customers connected to the network and how this compares to the threshold
  - The interconnectedness of the network
  - The network classification[9]
- The AER considers the following thresholds would meet these principles in most circumstances:
  - 25 kVA on single wire earth return lines (SWER).
  - The maximum capacity of a 100 Ampere 3 phase low voltage supply, elsewhere in the distribution network.

1.3 Reasons

1.3.1 Draft decision

The AER's draft decision was that:[10]

- There should be a fixed shared network augmentation threshold.

[9] For example CBD, Urban, Long Rural or Short Rural feeders.
[10] AER, Explanatory statement for proposed connection charge guidelines, 22 December 2012, p. 50.

- The shared network augmentation threshold will be set based on a customer's demand.
- DNSPs can apply different thresholds in identifiably different areas of its network.
- In adopting different thresholds, DNSPs must consider the ability for each region to cope with additional demand.
- Customers above and below the threshold should have identifiably different characteristics. Where there is no clear break point, the AER will have regard to the principles in chapter 5A when approving a DNSP's connection policies.
- A default threshold of 100 Ampere 3 phase low voltage supply will generally apply. A default threshold of 25kVA will apply on SWER lines.
- A new customer will pay augmentation costs (insofar as it involves more than an extension) on all of its demand if that customer is above the relevant shared network augmentation charge threshold.

1.3.2 Submissions on AER draft decision

There was general support for setting the threshold required under clause 5A.E.1(b)(2) based on a measure of customer demand.

Ausgrid questioned whether the AER could require a DNSP to submit the thresholds for approval separate to the connection policy. Ausgrid had multiple concerns regarding the level of prescription in the draft guidelines, and questioned whether the AER could impose a default threshold. Additionally, Ausgrid questioned what would happen if there was no clear natural breakpoint.[11]

JEN considered that if a DNSP applied the default threshold, then the DNSP should be exempt from requiring AER approval.[12]

1.4 AER consideration of submissions

The AER agrees that no separate submission or approval of the augmentation charge thresholds is required. The AER's intention was not to require separate approval of the thresholds, however, the AER accepts that its previous drafting did not convey this position clearly. The AER considers that a DNSP's connection policy must include a threshold that meets the principles set out in the connection charge guidelines. The AER will assess the threshold when approving a DNSP's connection policy.

Additionally, the AER has accepted Ausgrid's submission that it could not impose default thresholds through its connection charge guidelines, and so the AER has removed its default thresholds from the connection charge guidelines. The AER will assess each proposed threshold against the principles contained in section 1 of the connection charge guidelines.

[11] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 3, 6, 7.
[12] JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 3.

However, the AER considers that its previously suggested default thresholds would satisfy the requirements of section 1 in most circumstances and that this is the kind of guidance that is appropriate to set out in the guidelines. The AER has indicated this in its final connection charge guideline.

Ausgrid was concerned that the AER's threshold principles were written as approval criteria rather than as principles, and were thus too prescriptive.[13] In a sense, 'principles' are 'approval criteria'. When a DNSP submits a connection policy, the AER must assess the proposed thresholds against the principles established in the AER's connection charge guidelines. Therefore, regardless of how the threshold principles are worded, the AER would need to perform its own assessment of whether the proposed thresholds are consistent with the guidelines and the AER would not approve thresholds which were not.

Requirement for a clear breakpoint

In the draft guidelines, DNSPs could set an augmentation threshold at a level such that customers above and below the threshold had identifiably different characteristics. However, if a DNSP's proposed threshold did not meet this criterion, the DNSP would have to demonstrate that the proposed threshold limited cross subsidies and allowed for historic and geographic differences. Ausgrid questioned what would happen if there was no clear breakpoint (or if it could not identify customers as having identifiably different characteristics), as required by the draft guideline.[14] The AER has made minor modifications to the threshold principles to make them less prescriptive, while still ensuring that there are set principles established for thresholds.

First, the AER has amended the guidelines to allow DNSPs to propose threshold so as to either separate customers with different characteristics, or alternatively to set the threshold such that it does not create undue cross subsides. This provides DNSPs with greater flexibility with respect to the criteria which they will use to set these thresholds. Also, the AER considers that both these principles have desirable effects—either similar customers will be treated the same, or cross subsides will be limited.

In addition, the AER has incorporated what are the upper and lower bounds on the size of the threshold as they were drafted into chapter 5A into the guideline. These include;

- The thresholds should generally exclude augmentation (insofar as it involves more than an extension) charges for retail customers. This ensures that the threshold cannot be set so low that all retail customers are required to contribute towards the cost of augmentation; and

- The thresholds only operate in the circumstance detailed in paragraph 5A.E.3(d) of the NER. This ensures that customers with high voltage connections, or connections which would normally require augmentation of the network, or connections which increase the load on the distribution network beyond a level the DNSP could reasonably be expected to cope with, have to contribute towards the cost of augmentation (insofar as it involves more than an extension).

[13] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 3, 7.
[14] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 3, 6.

Finally, the AER moved the principle of allowing for historic and geographical areas so that it becomes a principle for setting different thresholds in different areas of the network. This results in a more appropriate application of this principle.

JEN proposed that the guideline be modified to exempt a DNSP from the requirement to seek AER approval of default thresholds.[15] The AER notes that it is no longer applying default thresholds and so JEN's submission is no longer relevant. Regardless, any threshold would need to be incorporated into a DNSP's connection policy, which would be submitted to the AER for approval.

[15] JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 3.

2 Method of determining total connection charges

The AER considers that as a general principle, connection applicants should only be required to pay for the least cost technically acceptable manner to which the required connection service can be provided. Where the connection applicant requests the connection service be provided to a higher standard, then the connection applicant should be required to meet the additional cost of providing the service to the higher standard. Likewise, where a DNSP considers it beneficial to perform the work to a higher standard, the DNSP should cover any additional cost of doing so.

2.1 Legislative requirements

Chapter 5A prescribes the aspects of a connection charges that the connection charge guidelines must consider. The guideless are required to describe the method of determining charges for premises connection assets. This includes describing the circumstances when a DNSP may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer.

The connection charge guidelines must also describe the method for calculating a refund when an extension asset that was originally installed to connect the premises of a single retail customer, is used within 7 years of its installation. These requirements are set out in clause 5A.E.3(c) of the NER, which states that the guidelines must:

(1) describe the method for determining charges for premises connection assets; and

(2) describe the circumstances (or how to determine the circumstances) under which a Distribution Network Service Provider may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer for the provision of a connection service; and

(3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and

....

(5) describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge; and

(6) describe the method for calculating:

> (i) the amount of a refund of connection charges for a connection asset when an extension asset originally installed to connect the premises of a single retail customer is used, within 7 years of its installation, to connect other premises and thus comes to be used for the benefit of 2 or more retail customers;
>
> (ii) the threshold below which the refund is not payable; and

Section 2 of the connection charge guidelines combines the requirements of clause 5A.E.3(c)(1), (2), (3), (5) and (6) into a single high level formulaic expression. This formula

shows how these individual requirements are combined in-order to calculate the total connection charge for the customer. The constituent parts of this formula are described in greater detail in sections.

2.2 AER final decision

The AER's final decision is set out in section 2 of the connection charge guidelines for electricity retail customers.

The connection charge will be calculated in accordance with the following formula:

Connection Charge = AS + CC + PS

Where:

- AS—is the total charge payable to the distribution network service provider for all relevant alternative control connection services.
- CC—is the total capital contribution payable to the distribution network service provider for all relevant standard control connection services.
- PS—is the total payable to the distribution network service provider to account for any pioneer scheme applying to the assets to which the connection applicant connects.

Connection applicants may also be required to pay a security fee.

In determining the total connection charge, a distribution network service provider must:

- Determine the charge for each component in a fair and reasonable manner; and
- Calculate the charge for each component on the least cost technically acceptable standard necessary for the connection service, unless the connection applicant requests a connection service, or part thereof, be performed to a higher standard in which case the connection applicant should pay the additional cost of providing the service to the standard requested.

If a DNSP elects to perform the work to a higher standard or capacity than the least cost technically acceptable standard, then the DNSP must not charge the connection applicant for any cost additional to the least cost technically acceptable standard or minimum required capacity, unless:

- The connection applicant is a real estate developer and the DNSP has included the cost of providing efficiently for forecast load growth.

Where a connection applicant's requirement falls between the capacity of two standard size network elements and the distribution network service provider installs the smallest standard size network element capable of meeting the connection applicant's requirement, then this would not constitute a DNSP electing to perform the work to a higher standard or capacity in accordance with this clause.

If a DNSP prepares a technical specification to allow a connection service to be performed on a contestable basis, then the technical specification cannot require the connection service be performed to higher than the least cost technically acceptable standard or a capacity greater than the connection applicant's requirement, unless the DNSP makes arrangements to fund the additional cost of achieving the higher standard, or capacity.

2.3 Reasons

2.3.1 Draft decision

The AER's draft decision on the connection charge formula was the same as the AER's final decision.

The draft decision also indicated that a connection policy may:

- Require a customer to provide a security fee to the DNSP, which will be refunded if the DNSP receives the expected incremental revenue from the customer.
- Provide for connection costs associated with unclassified or negotiated connection services to be paid by the customer directly to the relevant service provider, as agreed by the parties in accordance with chapter 5A of the NER.

2.3.2 Submissions on AER draft decision

Submissions generally supported the AER's approach to determining the total connection charge.

Ausgrid expressed concern about being able to recover design and administrative costs and considered that the guideline needed to make explicit reference to support or incidental services to ensure the full cost of these monopoly services can be recovered. Additionally, Ausgrid questioned how DNSPs could recover the costs for design which occur before a connection offer is made if prepayment of charges is linked to the acceptance of a connection offer.[16]

Ausgrid also considered the requirement to calculate each component of the connection charge in a fair and reasonable manner to be redundant as this is already a requirement of the connection charge principles.

ActewAGL considered that the guidelines neither provide guidance on what the "least cost technically acceptable standard" (used in calculating incremental cost) should be, nor guidance on how to resolve disagreement regarding the necessary standard.

2.4 AER consideration of submissions

The AER does not consider the connection charge formula needs to make specific reference to particular connection services as proposed by Ausgrid. The AER considers the general

[16] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 4.

nature of the formula allows it to be applied to any connection services. The AER considers that DNSPs should propose all relevant connection services (including where necessary support or incidental services) and the AER will decide upon the relevant service classification. This service classification will determine the manner in which the DNSP may charge for the service and how it interacts with the connection charge guidelines.

The AER noted that paragraph 5A.E.1(c) of the NER has provides that capital contributions charges be reasonable. Paragraph 5A.E.3(b) expressly provides that a purpose of the guidelines is to ensure that connection charges are reasonable, taking into account various factors. The AER considers there is value in repeating these requirements when describing matters in the guidelines as it is a fundamental requirement for connection charges.

2.4.1 Recovery of costs incurred prior to acceptance of the connection offer

Ausgrid noted the payment of charges appears to be linked to the acceptance of the connection offer.[17] Costs incurred by DNSPs to undertake detailed design work before a connection applicant has obtained financial and/or development application approval for their project need to be recovered by a DNSP regardless of whether the project proceeds to a point where a connection offer is actually accepted. Ausgrid sought to confirm that the recovery of the costs associated with these support services provided by DNSPs prior to acceptance of the connection offer can be recovered from the connection applicant through the connection charge, regardless of the classification of the services determined by the AER.

The AER considers that DNSPs should be able to recover costs incurred prior to the connection offer being accepted. However, the AER also considers that payment of connection charges is conditional on to the acceptance of the connection offers. Accordingly, if a DNSP seeks to recover these costs through the connection charge, there is some risk to DNSPs of not recovering these costs if the connection offer is not accepted. If DNSPs are unwilling to accept this risk, then they should seek to have these services classified separately from connection services and recover these costs separately from the connection offer. However, if a DNSP considers it appropriate to include these costs in the connection offer then the costs would be recoverable under the prepayment conditions in the guideline upon acceptance of a connection offer.

2.4.2 Least cost technically acceptable standard

The AER considers that the least cost technically acceptable standard relates to the cheapest connection method, including both material and labour costs that is consistent with industry practice and meets the requirements of any relevant legislation, guidelines or codes.

Where a connection applicant's requirement falls between the capacity of two standard size network elements and the distribution network service provider installs the smallest standard size network element capable of meeting the connection applicant's requirement, then this would constitute the least cost technically acceptable standard and would not be considered to be a decision by either a DNSP or a connection applicant, to construct the connection to a higher standard.

[17] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 14.

3 Method of determining charges for negotiated distribution services and unclassified distribution services

The AER considers that a service classification of negotiated distribution service or unclassified service, correctly applied, will result in connection charges meeting the purposes of the connection charge guidelines. These service classifications are generally applied in circumstances where the service is provided in a competitive market and this competition generally results in charges that reflect the efficient costs of providing the connection service and limit any cross-subsidisation and allow for contestable frameworks to operate on a competitively neutral basis. Examples of contestable services include:

- the competitive connection service provided under the Accredited Service Provider (ASP) scheme of NSW;[18] and
- where a property developer provides internal electricity reticulation to each sub-divided block within a subdivision by using qualified contractors rather than a DNSP, and then gives the electricity infrastructure to a DNSP as a "gift" for the DNSP to be responsible for the ongoing maintenance.

3.1 Legislative requirements

Chapter 5A requires the AER to describe the method of determining the charges for premises connection assets and to describe the method for calculating the extension and augmentation component for connection assets. In some circumstances, particularly where there is a competitive market for these connection services, the AER may classify these services as negotiated distribution services or unclassified services. Section 3 of the connection charge guidelines satisfy the requirements of clause 5A.E.3(c)(1) and (5) of the NER in these circumstances.

Clause 5A.E.3(c)(1) and (5) of the NER require that the guidelines must:

> (1) describe the method for determining charges for premises connection assets; and
>
> ....
>
> (5) describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge;

In the guidelines, the AER has considered the purposes set out in Clause 5A.E.3(b) of the NER for determining the approach to charging for connection services classified in this

[18] Under the *Electricity Supply Act 1995* (NSW), if a NSW DNSP charges a customer, the customer can choose any ASP to do the work in a contestable environment.

manner. This clause states that the purpose of the connection charge guidelines is to ensure that connection charges:[19]

1. are reasonable, taking into account the efficient costs of providing the connection services arising from the new connection or connection alteration and the revenue a prudent operator in the circumstances of the relevant Distribution Network Service Provider would require to provide those connection services; and

2. provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the connection services; and

3. limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer; and

4. if the connection services are contestable – are competitively neutral.

3.2 AER final decision

The AER's final decision is set out in section 3 of the connection charge guidelines for electricity retail customers.

In summary, for negotiated distribution services or unclassified services, the charge will be agreed upon by the customer and the relevant service provider.

Regardless of the classification of the connection service, a DNSPs connection offer must still be in accordance with the requirements of chapter 5A, including the connection charge principles and this connection charge guideline.

3.3 Reasons

3.3.1 Draft decision

For negotiated or unclassified services, the charge will be agreed upon by the customer and the relevant service provider in accordance with the principles in Chapter 5A.

3.3.2 Submissions

Submissions generally agreed with the AER's approach. However there were some specific areas where issues were raised. Ausgrid and Actew AGL noted that as the AER's service classification may be revised in the upcoming Framework and Approach papers, it is uncertain exactly when these provisions will apply to connection services.[20]

There were also questions concerning the broader application of chapter 5A to services which are classified as either alternative control, negotiated and unclassified services. Endeavour indicated that the AER's connection charge guideline should not apply to connection services

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19 Clause 5A.E.3(b) of the NER

20 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 1. ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p.3.

classified as alternative control services, negotiated services or unclassified distribution services.[21]

3.4 AER consideration of submissions

As explained above, the classification of services in each distribution determination is a separate process and is not influenced by the connection charge guideline. However, recognising that there are various types of economic considerations which could be applied to connection services, the connection charge guideline has been developed to deal with each service classification separately.

The AER considers that a service classification of alternative control, negotiated and unclassified services, correctly applied, results in connection charges which meet the purposes of the connection charge guideline. Accordingly, the AER can see no justification for imposing additional requirements upon connection services under these service classifications.

The AER accepts that its role in determining the appropriate service classification to apply to connection services may create some uncertainty prior to the first regulatory control period that will implement Chapter 5A. However, the AER considers that the consultation process required in making the distribution determination is the appropriate forum to clarify these matters prior to the connection charge policy being implemented.

The AER does not agree with Endeavour that the connection charge guideline should not apply to connection services classified as alternative control services, negotiated services or unclassified distribution services. The AER considers that the connection charge guideline covers any connection services which are offered to a retail customer in accordance with chapter 5A of the NER. However, the connection charge guideline does not impose specific requirements on the calculation of charges for these services, as the AER considers that the approved form of control will result in charges which accord with the principles of the connection charge guideline. However, many of the non-price terms and conditions will still apply to these services. An example includes the pioneer scheme which allows for a refund of connection charges for extension assets. It is an obligation on the DNSP to allow for such a scheme regardless of the classification of this service. Even if construction of the extension is unclassified and is performed and charged for by a third party, the DNSP must still make this scheme available to the new customer. The connection charge guideline applies to connection services which are offered to a retail customer in accordance with chapter 5A of the NER, regardless of the service classification they are given.

[21] Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 3, 4.

4 Method of determining charges for alternative control services

Distribution services that are provided to a small number of identifiable customers on a discretionary or infrequent basis are typically classified as alternative control services, for example, use of a DNSP's service truck for service cable relocation requested by a customer. Separate charge rates apply to such services instead of the normal network tariff. The charging rates or charging principles for alternative control services are typically determined by the AER as part of the distribution determination process. The AER considers that a service classification of alternative control, correctly applied, will result in connection charges meeting the purposes of the connection charge guidelines. This should result in charges that reflect the efficient costs of providing the connection service, result in user pays signals, limit any cross-subsidisation and allow for contestable frameworks to operate on a competitively neutral basis.

4.1 Legislative requirements

Chapter 5A requires the AER to describe the method of determining the charges for premise connection assets and to describe the method for calculating the extension and augmentation components of connection assets. In some circumstances, particularly when the cost of these components can be accurately identified and attributable to an individual customer (but the market is not fully competitive), the AER may classify these services as alternative control services. Section 4 of the connection charge guideline satisfies the requirements of clause 5A.E.3(c)(1) and (5) of the NER when these connection services are classified as alternative control services.

Paragraphs 5A.E.3(c)(1) and (5) of the NER require that the guidelines must:

> (1) describe the method for determining charges for premises connection assets; and
>
> ....
>
> (5) describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge;

In the guidelines, the AER has considered the purposes set out in clause 5A.E.3(b) of the NER for determining the approach to charging for connection services classified in this manner. This clause states that the purpose of the connection charge guidelines is to ensure that connection charges:[22]

1. are reasonable, taking into account the efficient costs of providing the connection services arising from the new connection or connection alteration and the revenue a prudent operator in the circumstances of the relevant Distribution Network Service Provider would require to provide those connection services; and

[22] Clause 5A.E.3(b) of the NER

2. provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the connection services; and

3. limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer; and

4. if the connection services are contestable – are competitively neutral.

4.2 AER final decision

The AER's final decision is set out in section 4 of the connection charge guidelines for electricity retail customers.

In summary, the charges for alternative control services will be calculated in accordance with the approved form of control.

Regardless of the classification of the connection service, a DNSP's policy on connection charges for alternative control services must still be consistent with the requirements of chapter 5A, including the connection charge principles, and with these connection charge guidelines.

4.3 Reasons

4.3.1 Draft decision

The AER's draft decision stated that in addition to complying with the connection charging principles of chapter 5A, the charges for alternative control services will be calculated in accordance with the approved form of control.

4.3.2 Submissions

Submissions generally agreed with the AER's approach. However there were some specific areas where issues were raised. Ausgrid and ActewAGL noted that as the AER's service classification may be revised in the upcoming Framework and Approach papers, it is uncertain exactly when these provisions will apply to connection services. There were also questions concerning how the broader application of chapter 5A related to services which were classified as either alternative control, negotiated and unclassified services.[23]

4.4 AER consideration of submissions

The AER has addressed the majority of these submissions in section 3.

The AER considers that a service classification of alternative control, correctly applied, results in connection charges which meet the purposes of the connection charge guideline.

[23] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 1. ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p.3.

Accordingly, the AER can see no justification for imposing additional requirements upon connection services under this service classification.

With regard to the broader application of chapter 5A to services classified as alternative control, the AER considers that the non-price terms and conditions of chapter 5A apply to all facets of the connection offer regardless of the service classification. A particular example of this is with respect to the refund of connection charges for extension assets. It is an obligation on the DNSP to allow for such a scheme regardless of the classification of this service. The AER edited its draft guideline to make clearer its intention in this respect.

5 Method of determining capital contributions for standard control services

5.1 Legislative Requirements

Chapter 5A requires the connection charge guidelines to describe the method of determining charges for premise connection assets, to describe the circumstances in which a capital contribution may be paid and how to calculate this capital contribution. Further, the connection charge guidelines must describe the method for calculating the extension and augmentation component for connection assets.

In some circumstances, particularly where the cost cannot be accurately identified or specifically attributed to an individual customer, the AER may classify these services a standard control service. Section 5 of the connection charge guidelines satisfy the requirements of clause 5A.E.3(c)(1), (2), (3) and (5) of the NER for connection services that are classified as standard control.

Clause 5A.E.3(c)(1), (2), (3) and (5) of the NER require that the guidelines must:

> (1) describe the method for determining charges for premises connection assets; and
>
> (2) describe the circumstances (or how to determine the circumstances) under which a Distribution Network Service Provider may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer for the provision of a connection service; and
>
> (3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and
>
> ....
>
> (5) describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge

In the guidelines, the AER has considered the purposes set out in clause 5A.E.3(b) of the NER for determining the approach to charging for connection services classified in this manner. This clause states that the purpose of the connection charge guidelines is to ensure that connection charges:[24]

1. are reasonable, taking into account the efficient costs of providing the connection services arising from the new connection or connection alteration and the revenue a prudent operator in the circumstances of the relevant Distribution Network Service Provider would require to provide those connection services; and
2. provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the connection services; and
3. limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer; and

[24] Clause 5A.E.3(b) of the NER

4. if the connection services are contestable – are competitively neutral.

5.2 Elements of determining capital contributions for standard control services

The reasons for the AER's decision for each of the following issues are discussed separately in the ensuring sections:

1. Cost-revenue-test formulation
2. Incremental Costs
3. Incremental Revenue
4. Estimating customers' consumption and demand
5. Pre-calculated capital contributions

5.3 Cost-revenue-test formulation

The AER considers that a service classification of standard control, without the addition of the cost-revenue-test, does not always meet the purpose of the connection charge guidelines. Specifically, it may not provide a user-pays signal or limit cross-subsidisation. The application of the cost-revenue-test introduces greater user pays signals to these services and removes potential cross subsidies by allowing DNSPs to levy an additional upfront capital contribution for standard control services. Accordingly the AER considers it appropriate to apply a cost-revenue-test to standard control services.

5.3.1 AER final decision

The AER's final decision is set out in section 5 of the connection charge guidelines for electricity retail customers.

In summary, the amount of capital contributions for standard control services is to be determined using a cost-revenue-test. In addition to setting how the amount is to be determined, this section of the guidelines also describes the circumstances in which a capital contribution may be received by a DNSP for a connection service that is a standard control service and the methods for calculating relevant components for the connection assets or connection charge, as appropriate.

The cost-revenue-test only applies to services that are classified as standard control services, subject to the following conditions;

- Shared network augmentations will not be included in the cost-revenue-test, where the customer is not required to make a capital contribution towards the cost of augmentation because chapter 5A does not allow it, or the customer is below the shared network augmentation threshold.
    - In these cases neither the amount of ICSN nor IR(n=X) (see descriptions below) attributable to these connection services will be included in the cost-revenue-test.

- Operational and maintenance costs will either not be included in the cost-revenue-test, or they must be included in both the cost and revenue side of the test so that the costs have not net impact on the capital contribution charge.

A cost-revenue-test is in the form of:

CC = ICCS + ICSN – IR(n=X)

Where:

- CC ≥ 0
- CC = Capital Contribution for standard control services.
- ICCS = Incremental Cost Customer Specific—the incremental costs incurred by the distribution network service provider for standard control *connection service*s, which are used solely by the connection applicant. This may include extensions and augmentation of premises connection assets at the retail customers connection point.
- ICSN = Incremental Cost Shared Network—the costs incurred by the distribution network service provider for standard control *connection service*s, which are not used solely by the connection applicant. This may include any augmentation (insofar as it involves more than an extension) attributable to the new connection.
- IR(n=X) = Incremental revenue expected to be received from the new connection—the present value of a X year revenue stream directly attributable to the new connection.

5.3.2 Reasons

Draft decision

The AER's draft decision differed from the final decision as it required DNSPs to remove operational and maintenance costs from the cost-revenue-test.[25] The final decision allows DNSPs to either remove these costs, or to include the costs and include an estimate of the revenue so that the costs have no net impact on the capital contribution.

Submissions

The AER received general support for the implementation of the cost-revenue-test in the form proposed. However, while SP AusNet and UED agreed that the AER's formulation was appropriate for a cost-revenue-test, they questioned whether a cost-revenue-test was permitted under the NER.[26] Aurora did not consider that the cost revenue test provided proper price signalling regarding the true cost or limit cross-subsidies.[27]

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25 AER, Explanatory statement for proposed connection charge guidelines, 22 December 2012, p. 28.

26 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 11. SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 9.

27 Aurora, Draft connection charge guideline, 16 February 2012, p. 2.

Ergon did not support the proposal to adjust the incremental revenue calculation by removing the operating and maintenance costs. It preferred to include the operational and maintenance cost in the incremental cost calculation. Ergon considered that the guideline should allow DNSPs to choose which approach to adopt.[28]

5.3.3 AER consideration of submissions

User pays signals and cross subsidisation

The AER notes Aurora's submission that the approach does not provide appropriate price signalling or limit cross subsidies. In general, the cost of services classified as standard control will be recovered from all customers collectively through DUoS charges, which differ for different categories of customers. DUoS charges are broadly based on a customer's load and connection characteristics and so while there is an inherent averaging, there is still some degree of cost reflectivity. However, the AER acknowledges that standard control services do not have strong price signals with regard to connection costs.

The AER, in applying a cost-revenue-test to connection services that are standard control services, has sought to improve user-pays signals and limit cross-subsidies, within the confines of the standard control mechanism. While the AER's cost-revenue-test may not result in full cost reflectivity, it provides a greater incentive for a new customer accessing these services to consider the cost of connecting to the network.

Does the NER permit the application of a cost-revenue-test to standard control services?

SP AusNet and United Energy expressed concerns that the imposition of a cost-revenue-test for standard control services may actually be in conflict with clause 5A.E.1(c)(6) of the NER. In essence, they argued that the phrase 'if provision for the costs has not already been made' means that if any of the costs have been provided for already in charges or a tariff then no additional charge can be levied for that service (even if there is a shortfall).

The AER considers that there is a preferable alternative view, which is that those costs that have already been provided for cannot be recovered again, but additional costs that are not already provided for can be recovered by a separate charge. The AER concedes that on a literal reading of the provision both views are potentially open. However, the AER considers its interpretation better reflects the scope and purpose of the rules.

The AER considers that one purpose of the provision is to prevent double recovery of costs and either interpretation would achieve that purpose. However, there are additional goals set out in chapter 5A that support the AER's preferred interpretation. In particular, The AER notes that clause 5A.E.3(b) provides that the AER's guidelines on connection charges must ensure that connection charges provide a user-pays signal to reflect the efficient costs of providing connection services. The AER considers its interpretation is most consistent with this purpose.

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[28] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 3.

Similarly, clause 5A.E.3(b) states that the guidelines must limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer. Again, the AER considers its interpretation is reflective of this objective.

The AER has clarified in the guideline that only the relevant cost categories will be applicable when calculating the unit rate.

Operational and maintenance costs/revenue

The AER has considered Ergon's submission that a more appropriate method of accounting for operational and maintenance costs is to include them in the calculation of costs rather than remove them from DUoS charges. The AER accepts Ergon's position that DNSPs should be able to adopt either approach. The AER has modified the connection charge guidelines accordingly.

5.4 Incremental costs

One element in calculating the cost-revenue-test is the incremental cost imposed upon the DNSP by the connection applicant for standard control services. The AER considers that costs that can be specifically attributed to an individual customer (customer specific incremental costs) should be included in the cost-revenue-test using an estimate of the cost of the connection work. The AER considers that costs that cannot be specifically attributed to an individual customer (incremental costs in the shared network) should be included in the cost-revenue-test on an average unit rate basis.

5.4.1 AER final decision

The AER's final decision is set out in section 5 of the connection charge guidelines for electricity retail customers.

In summary, the AER's final decision is that to determine the incremental cost of a connection applicant, DNSPs must:

- Determine the cost of each component in a fair and reasonable manner and the cost estimate should be reflective of the efficient costs of performing the service.
- Calculate the cost of each component based on the least cost technically acceptable standard necessary for the connection service.

If a DNSP elects to perform the work to a higher standard, then the DNSP must not charge the connection applicant for any cost additional to the least technically cost acceptable standard, unless the connection applicant is a real estate developer and the DNSP has included the cost of providing efficiently for forecast load growth.

If jurisdictional regulations permit, the DNSP should offer an option of conducting a tender process on behalf of the connection applicant or allow a connection applicant to conduct a tender process. A DNSP must inform a connection applicant of the option to tender and a DNSP may charge the connection applicant for the costs of performing or assisting in a tender.

The ICCS will be calculated as the sum of the following cost items:

- Augmentation of premises connection assets at the retail customer's connection point.
- Extension costs.
- Administration costs (including any design and certification costs).
- Any costs for conducting a tender process.
- Any other standard control connection services which are used solely by the connection applicant.

Shared network charges will be calculated as the shared network unit rate multiplied by demand (the electrical capacity required by a connection service).

The unit rate must be calculated as an average cost of adding a unit of capacity to the shared network and may be calculated taking into account the local area's recent shared network augmentation costs for the following network components (where applicable to a connection):

- Sub-transmission line
- Zone substation
- High voltage feeder
- Distribution substation
- Low voltage mains.

A distribution network service provider may apply different unit rates in different areas of its network when the cost of augmentation differs significantly between these areas.

In calculating the applicable unit rate a distribution network service provider must take account of the cost of augmenting each network component with reference to:

- The proportion of each network component used by the connection applicant; and
- The useful life of the network component and the assumed period for which the connection applicant will be using the network.

5.4.2 Reasons

Draft decision

The AER has made minor changes from the draft decision. For example, the draft decision did not require DNSPs to base the unit rate on only the network components to which a new customer would connect. These changes were made in response to the submissions received, which are discussed below and in the table at the end of this final decision.

Submissions

Submissions requested further clarity concerning the manner in which the incremental cost should be calculated.

ETSA also considered that if a DNSP is required to adjust the cost component of the cost-revenue-test for the customer's connection period, then the revenue component must also be adjusted to account for the connection period.[29]

5.4.3 AER consideration of submissions

There is no single method which guidelines require DNSPs to adopt to calculate the shared network incremental unit rate. However, the AER has clarified in the guideline that the unit rate should only be based on the *relevant* component costs (i.e. sub transmission line, zone substation, high voltage feeder, distribution substation and low voltage mains) for a connection. The AER considers that one acceptable method would be to determine the average historical expenditure for each applicable component cost, and then convert that expenditure into a unit rate based on the amount of additional capacity added through that expenditure. This rate may then need to be adjusted for the proportion of each network component used and the useful life of the network component before being added to the unit rates of other relevant component costs.

ETSA submitted that if a DNSP is required to adjust the cost component for the customer's connection period, then the revenue component must also be adjusted to account for the connection period. The assumed connection period of a customer is specified in the guideline to be 30 years for residential customers and 15 years for business customers (but this can be changed for customers where it is not appropriate). The revenue and cost terms should match. Therefore, if a particular cost component is associated with an asset of a life longer than the assumed connection period, the cost component should be adjusted accordingly.

5.5 Incremental revenue

The cost-revenue-test relies upon an estimation of the incremental revenue that a DNSP will receive from the connecting customer. The AER considered that the four primary issues to consider in determining the appropriate estimate of total revenue to use in the cost-revenue-test are: the appropriate measure of revenue; the appropriate time period over which to assume revenue for a particular connection is earned by the DNSP; the price path to assume beyond the current distribution determination; and the appropriate discount rate to use for calculating the net present value of the future revenue stream. The AER considers these should be set in a manner that is administratively simple and easy to apply, however, they should also reflect reasonable estimates of the revenue which the DNSP will receive from the connection applicant.

5.5.1 AER final decision

The AER's final decision is set out in section 5 of the connection charge guidelines for electricity retail customers.

In summary, DNSPs will need to specify the manner in which they will estimate incremental revenue in their connection policy. The relevant revenue to use in the cost-revenue-test is all DUoS revenue expected to be provided by the customer except:

[29] ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 4.

- Where the customer is below the augmentation charge threshold and hence is not required to pay an explicit charge for augmentation (insofar as it involves more than an extension), DUoS attributable to the shared network should be removed from the measure of incremental revenue.

- Where operational and maintenance costs are excluded from the calculation of incremental costs, revenue attributable to operational and maintence will need to be excluded from the measure of revenue.

- The revenue estimate will use a 30 year connection period for residential customers and a 15 year connection period for business customers except:

  - Where a 15 year connection period does not reflect a reasonable estimate of the time that a business customer will be connected to the network, the DNSP may set an appropriate connection period for that business customer. The DNSP, acting in good faith, will determine an alternative connection life.

- A DNSP's real pre tax WACC is the appropriate rate to discount the incremental revenue stream.

- DNSPs will use a flat real price path after the end of the relevant distribution determination, for the remaining life of the connection, when estimating the incremental revenue.

5.5.2 Reasons

Draft decision

The AER's draft decision provided that the cost-revenue-test should be calculated using an estimation of the incremental revenue that a DNSP will receive from the connecting customer.

The AER found:

- The relevant revenue to use in the cost-revenue-test is the DUoS attributable to the capital costs for standard control services. An estimate of operational and maintenance costs should be removed from this revenue.

- The revenue estimate will use a 30 year connection life for residential customers and a 15 year connection life for business customers unless:

  - a 15 year connection period does not reflect a reasonable estimate of the time that a business customer would be connected to the network, in which case the DNSP should negotiate with the customers in good faith when determining an alternative connection life

- A DNSP's real pre tax WACC is the appropriate rate to discount the incremental revenue stream.

- DNSPs will use a flat real price path after the end of the relevant distribution determination, for the remaining life of the connection, when estimating the incremental revenue.

Submissions

SP AusNet and United Energy questioned whether only the variable portion of DUoS should be included in the cost-revenue-test, as the fixed component is generally used to cover sunk investment costs of the shared network. SP AusNet and United Energy considered that the inclusion of the fixed charge in the test may mean that if a customer's cost-revenue test is at a level where the NPV is positive (i.e., they are not required to pay a contribution), but that NPV is below the NPV of the stream of revenue derived from the fixed charge itself, then the existing customer base may receive no benefit at all from connecting that customer in that circumstance. The reason being is that the new customer's expected contribution to the recovery of sunk costs (the fixed charge) actually just reduces their overall customer contribution. Ceteris paribus, this lower contribution increases the capital base, which flows through to higher charges to existing customers. [30]

ETSA and Aurora sought clarification on the portion of revenue to include in the cost-revenue-test when no charge for augmentation (to the extent that it includes more than an extension) is allowed.[31]

AER consideration of submissions

Appropriate measure of revenue

United Energy and SP AusNet have indicated that the fixed component of DUoS should be removed because it allows for the recovery of the sunk asset base. If a connection applicant contributes exactly its incremental cost, then there should be no net benefit or detriment to existing customers. United Energy and SP AusNet's example of a NPV positive cost-revenue-test only occurs when the connection applicant is expected to contribute greater than its incremental cost and hence would be expected to deliver a net benefit to existing customers.

The AER does not consider that the fixed component of DUoS should be removed from the expected DUoS charges when calculating the incremental revenue. The AER notes that under chapter 5A, one purpose of the AER's guideline is to limit cross subsidies.[32] Removing cross subsidies requires the connection applicant to contribute at least its incremental cost to the network and does not require a customer to contribute towards the sunk costs of the fixed network. The AER's approach with the cost-revenue-test only requires an additional upfront capital contribution to the minimum extent necessary to remove cross subsidies between new and existing customers. In addition, not all DNSPs may set their DUoS charges in the same way as SP AusNet and United Energy and the fixed component of the DUoS charges may not represent the sunk cost of a particular class or classes of asset. Accordingly the AER considers that all revenue (which is connected with the services being provided) is counted against those services.

Similar to removing operational and maintenance costs from the test as discussed in section 5.3, so too DNSPs should remove costs and revenues relating to shared network

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[30] SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 10. United Energy, Response to AER's draft connection charge guidelines, February 2012, p.14.

[31] ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 5. Aurora, Draft connection charge guideline, 16 February 2012, p. 4.

[32] Clause 5 A.E.3(b)(3).

augmentation if a customer is not required to pay for augmentation (to the extent that it includes more than an extension). DNSPs may propose a method to remove the revenue related to augmentation (to the extent that it included more than an extension). One method may be to calculate the augmentation expenditure over the previous years, convert it into an average augmentation rate (with reference to the amount of capacity added), and remove from the incremental revenue the unit rate multiplied by the customer's usage.

The more specific issues raised by ETSA and Aurora are addressed in the appendix of this paper.

Appropriate time period

The AER considers that the time periods nominated in its draft decision represent reasonable estimates of average connection periods. However, the AER recognises that the connection period for business customers can vary significantly depending on industry type, and therefore considers it appropriate to allow some flexibility in the estimation of connection periods for business customers. Accordingly, the AER will allow DNSPs to propose an alternative connection period estimates in their connection policies. The AER will approve a different assumed connection period if it is satisfied that it is reflective of the average expected life span of that connection type. The AER is of the view that the connection period of residential customers should not significantly differ.

Discount Rate

Submissions did not raise substantive issues with this aspect of the AER's draft decision.

Price path

The AER accepts ETSA's contention that applying a real flat price path from the time of connection may be simpler than applying a price path set during the price determinations. However, the AER considers that in an environment of rising electricity prices, customers would not have their full DUoS payments accounted for. The price path for the remainder of a current regulatory control period is known and as such, use of the actual price path can be easily applied.

Energex sought clarification of the applicable X factor to the revenue component.[33] The AER considers for a regulatory year where an X factor has been determined, that X factor should be applied. For years where an X factor has not been determined, a real X factor of zero should be applied.

5.6 Estimating customers' consumption and demand

The AER considers that DNSPs are generally in the best position to estimate a connection applicant's consumption or demand and that it is administratively simpler for the DNSP to perform this estimation. Accordingly, DNSPs should be able to decide upon the appropriate assumptions to use. However, as the DNSP is a monopoly service provider, it is important to provide some protection for consumers. The AER considers that requiring a reconciliation

[33] Energex, AER draft connection charging guidelines, 17 February 2012.

process should allow connection applicants and DNSPs to find alternative methods of resolving any disputes that may arise.

5.6.1 AER final decision

The AER's final decision is set out in section 5 of the connection charge guidelines for electricity retail customers.

DNSPs' consumption and demand estimates should be based on an assessment of the connection applicant's particular circumstances. However, a distribution network service provider may also consider actual consumption and demand data from existing connection services with similar characteristics.

The DNSP's connection offer must include the DNSP's estimate of a connection applicant's peak demand or peak coincident demand for use in calculating the shared network augmentation charge.

If a DNSP and a connection applicant (other than a real estate developer) cannot reach agreement on appropriate estimates of consumption and/or demand, then:

- A provisional estimate may be determined and applied by the DNSP.
- No later than three years after the connection works occur, a refund or additional charge is payable to/by the relevant connection applicant based on the actual consumption or demand experienced over the period.
- The additional charge or refund will be calculated assuming the actual consumption or demand experienced over the period, will be experienced over the total connection period.
- If the connection applicant becomes insolvent, or ceases to utilise the property within three years, then the DNSP will not make a refund or require an additional charge based on the actual demand or consumption.

DNSPs and real estate developers may enter into private agreements similar to that allowed for estimating customer's consumption or demand, if an estimate for consumption and/or demand cannot be agreed upon.

5.6.2 Reasons

Draft decision

The AER's draft decision allowed the same method to resolve potential disputes regarding demand and consumption estimates as the final decision. However, the AER has made minor changes to the drafting of the method.

Submissions

There was a mixed response from stakeholders, with some agreeing to the AER's position and some DNSPs considering the scheme administratively burdensome.

ActewAGL submitted that a reconciliation process would create a significant administrative burden for DNSPs. It contended DNSPs and applicants should be free to reach private agreement.[34]

5.6.3 AER consideration of submissions

The AER agrees with ActewAGL that DNSPs and customers should seek to reach mutual agreement in the first instance, but where this fails, it is reasonable to have a framework in place to reduce the time and cost of settling disputes. The AER also notes that a similar reconciliation process is currently implemented in South Australia.

Therefore, when agreement on an appropriate estimate cannot be reached, a reconciliation process should be applied. Also, it may not always be possible to reconcile estimated demand because consumption meters may be installed. The process will not operate once the original customer has left the premises.

5.7 Pre-calculated capital contributions

The cost-revenue-test outlines the calculation of the capital contribution to be paid by a connection applicant for connection services classified as standard control. However, it is likely that DNSPs will have a numerous connection applicants with substantially similar costs and connection or usage characteristics. If a DNSP can clearly identify a class of customers that would make substantially the same capital contribution, then the DNSP may pre calculate this charge. This is intended to make the connection process easier and quicker for DNSPs and customers.

5.7.1 AER final decision

The AER's final decision is set out in section 5 of the connection charge guidelines for electricity retail customers.

In summary, the AER considers that where the class of customers receiving a particular basic or standard connection offer have substantially the same characteristics, the DNSP may choose to levy a pre-determined capital contribution. DNSPs are not required to levy a pre calculated capital contribution if they do not consider it appropriate for a particular class or classes of customer.

A DNSP's standard and basic connection offer can pre-calculate charges for standard control services, which would be subject to a cost-revenue-test. The AER will approve a basic or standard connection offer, which includes a pre-calculated charge, if the AER is satisfied the charge is reflective of the typical capital contribution that would be charged to each customer within the class if the cost-revenue-test was individually applied to customers within the class. Services outside the cost-revenue-test would be added to the pre-calculated charge.

[34] ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 7.

5.7.2 Reasons

Draft decision

The AER considers the basis for the draft decision on this matter is still relevant. However, the AER has clarified this part of the guidelines to deal with the concerns which have been raised.

Submissions

There was broad support for the AER's position in allowing pre-calculated capital contributions. It was suggested by United Energy and SP AusNet that the AER should, for the purposes of clarity, also explicitly reference 'average/expected usage characteristics', as well as the 'class of customer' and the 'same connection characteristics.' [35]

5.7.3 AER consideration of submissions

The AER considers that chapter 5A operates such that a DNSP must identify the class of customers to which a basic or standard connection offer relates. As such, it is incumbent on the DNSP to identify the classes of customers which it considers should be provided a basic or standard connection offer. DNSPs may propose to identify relevant classes of customers using characteristics they consider appropriate. This could include characteristics such as the amount of revenue likely to be contributed. However, the AER will only approve a pre-calculated charge if it is satisfied that the charge is reflective of the typical capital contribution that would be charged to each customer within the class if the cost-revenue-test was individually applied to customers within the class. The AER notes that its initial drafting of this clause may have appeared restrictive and the AER has redrafted it to address United Energy's and SP AusNet's concerns.

This approach is intended to meet the requirements set out in the principles in clause 5A.E.1 of the NER and the purpose of the guidelines that capital contributions and connection charges be 'reasonable' and that they provide a user-pays signal without undue administrative cost.

[35] SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 12. United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 16.

6 Maintaining a contestable framework

Where a contestable framework exists, a service classification of alternative control service, negotiated service or unclassified generally ensure the connection charges are competitively neutral.

6.1 Legislative requirements

Section 5A.E.3(b)(4) of the NER requires that if connection services are contestable, the AER's connection charge guidelines must ensure the connection charges are competitively neutral.

6.2 AER final decision

The AER affirms its draft position that contestable frameworks can be maintained by applying an appropriate service classification in the distribution determination. The AER notes that contestable markets may exist in many forms but generally considers that this framework can be adopted to any jurisdictional arrangement. The AER will consider the appropriate service classification in accordance with section 6.2.1 of the NER for each jurisdiction.

There may be situations where it is prudent to seek a contribution from very large customer for identifiable shared network augmentation triggered by the customer. Accordingly, the AER will allow DNSPs to propose and classify this type of connection service where they are responsible for providing the service. The AER has reconsidered how these types of services should be charged in the final decision.

6.3 Reasons

6.3.1 Draft decision

The AER concluded that contestable markets can be maintained, or promoted, by adopting a suitable service classification and form of control. The AER sought to ensure its guideline complements the AER's role in service classification. Service classifications and forms of control are decided in the distribution price control determination process and the AER considers issues related to contestability when deciding upon an appropriate form of control.

6.3.2 Submissions

Responses to the AER's draft decision generally indicated that the AER's proposed approach could appropriately maintain a contestable framework. Some submissions indicated that this was dependent on the manner in which services are classified in the distribution determination and this resulted in some uncertainty regarding the application of the guidelines.

SP AusNet and United Energy agreed with the AER that 'contestable markets can be maintained, or promoted, by adopting a suitable service classification and form of control'.[36]

In its supplementary submission, Endeavour Energy highlighted the contestability framework under NSW legislation (ASP scheme) that, under the Electricity Supply Act 1995 (NSW), if a NSW DNSP charges a customer, the customer can choose any ASP to do the work under the Act.

6.4 AER consideration of submissions

The AER notes the importance of applying an appropriate service classification to connection services. The service classification (for similar connection services) may vary between different jurisdictions, due to historical differences in the way services have been offered or due to different degrees of contestability. The AER will consider the level of contestability in each jurisdiction when deciding upon the service classification. As noted in section 3, this will be consistent with the principles of chapter 5A.

6.4.1 NSW contestability arrangements

The AER notes that there may be jurisdictional legislation, which operates parallel to the AER's connection charge guidelines. The AER understands that the manner in which the NSW regime treats the upstream shared network augmentation charge is quite different from the AER's proposed approach.

As indicated in the Explanatory statement for proposed connection charge guidelines, there may be situations where it is prudent to seek a very large customer to contribute to identifiable share network augmentation triggered by the customer, similar to the "large load customer" under the current capital contribution rules for NSW (IPART 2002 determination: capital contributions and repayments for connections to electricity distribution networks in New South Wales)[37].

The AER considers it appropriate to charge the customer for the least cost technically acceptable standard of construction required by the connection applicant. This provides a more appropriate locational signal for large customers that will have significant impact on the network. Without this, these customers may have a significant impact on the costs of existing users, given they would then be required to fund part of the connection. This charging approach is supported by clause 2.1.3 of the AER's final guideline, which contemplates that all connection charges should be based on the least cost technically acceptable standard and that this includes the cost of the installing the smallest standard size network element capable of meeting the connection applicant's requirement. Under this scenario, the network extension works that a customer triggers would still be subject to the pioneer scheme.

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[36] SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 13. United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 17.

[37] IPART, Capital contributions and repayments for connections to the electricity distribution networks in NSW, April 2002, p. 7.

If the AER determines that augmentation (insofar as it involves more than an extension) is classified as an alternative control service (and a compatible form of control is applied), negotiated distribution service or unclassified distribution service, then DNSPs may require a large customer to fund the least cost technically acceptable standard of the augmentation it triggers, unless the DNSP decides to perform the works to a higher standard than necessary. The AER notes that in NSW, this service may be provided by an accredited service provider and considers this charging mechanism is consistent with the accredited service provider scheme.

7 Prepayments

In many cases, construction work on a connection service may not occur for a lengthy period of time after a connection offer is accepted. In these circumstances, a DNSP and existing customers may bear some financial risk if a connection is cancelled. Accordingly, requiring a prepayment can be appropriate to mitigate this risk. However, because DNSPs are monopoly service providers, it is also important to ensure that they do not impose an unreasonable financial impact on connection applicants

7.1 Legislative requirements

Under clause 5A.E.3(c)(2), the AER's guideline must describe the circumstances (or how to determine the circumstances) in which a DNSP may receive prepayment from a retail customer or real estate developer for the provision of a connection service.

7.2 AER final decision

The AER's final decision on prepayments is set out in section 9 of the connection charge guidelines for electricity retail customers.

In summary, the AER does not consider it appropriate to require prepayment of the entire cost where construction work will not occur for three months after the connection agreement is reached or for large projects that have reasonably distinct construction phases. Where this is the case, the time at which the customer is charged should be more closely tied to the time when the cost is incurred, or a business decision to incur a sunk cost is made.

Section 9 of the guidelines describe the circumstances under which a DNSP may receive advance payment of upfront connection charges before commencement of the construction work. In summary, a DNSP may receive the full connection charge, unless the total connection charge is greater than $5000 ($, real 2012) and:

- The construction work will not commence for 3 months or more after the connection offer is accepted; or
- The construction work can be logically segmented into distinct stages of construction.

If construction work will not occur within three months and is greater than $5,000, the DNSP's policy can require payment at the time the connection offer is accepted for the costs that have been incurred and prepayment for any sunk costs that will be incurred immediately after the connection offer is accepted. The prepayment may include but is not limited to:

- The costs of specialised or non standard assets which need to be ordered by the distribution network service provider in advance and would not normally be required to perform a connection; and
- Design and administration costs.

The balance of a connection charge may be recovered by a distribution network service provider up to one month prior to the commencement of the construction work.

For connection services requiring multiple distinct stages of construction, the DNSP's connection policy should allow for partial prepayment of the connection charge, prior to each construction stage. Each prepayment should be reasonably reflective of the costs incurred in each construction stage.

7.3 Reasons

7.3.1 Draft decision

The AER considered that in most circumstances a DNSP can recover the full connection charge upfront from the customer as a prepayment. However, the AER described several situations where a DNSP was not permitted to require the full amount upfront, specifically:

- For small connections, if the construction work is scheduled to occur greater than 3 months after the connection offer is accepted, then a DNSP may only require a prepayment up to the value of the sunk costs the DNSP has incurred, or will incur immediately after accepting the connection offer. This may include:
  - Administration and design costs
  - Specialised, non-standard equipment or equipment purchased on demand by the DNSP, which is required for the connection and which cannot generally be used for another connection.
  - The balance of the connection charge can be required up to one month prior to the work commencing.
- DNSPs' connections policies should allow for staged payment of large connections where construction work is expected to occur in multiple stages.

7.3.2 Submissions

Submissions from DNSPs indicated that there should be no limit on the amount of prepayment that can be required. However, there was some agreement for the AER's draft position.

ETSA proposed a threshold (e.g. $1,000) below which DNSPs could require repayment in full, and prepayment of a fixed percentage for larger customers.[38]

Ergon considered the AER's proposal to allow DNSPs to require prepayments for works completed within three months was not long enough and proposed that six months was more appropriate.[39]

[38] ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.
[39] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 4, 5.

7.4 AER consideration of submissions

The AER accepts that requiring a DNSP to accept partial prepayment for connection services will result in some administration costs for the DNSP. However, the AER also considers that requiring prepayment of the entire connection charge a considerable period of time in advance of the connection work occurring would impose a significant financial burden on connecting customers. The AER has attempted to balance these considerations in drafting its connection charge guidelines and has concluded that some limit to the circumstances where prepayments may be received is appropriate.

ETSA submitted that DNSPs should be allowed to require full prepayment for works beneath a threshold if the works are to be completed within six months.[40] While the AER considers the overall position in the draft decision is appropriate, the AER has modified its draft decision to include a $5,000 threshold beneath which a DNSP may choose to require the full connection charge as a prepayment. A DNSP may therefore require a prepayment if the connection charge is below $5,000, and for amounts greater than $5,000 if the connection work will occur within three months. This will reduce the administrative cost to DNSPs. With regards to the time period, the AER maintains its view that three months is appropriate. For connections above $5,000 which cannot be segmented into discreet stages construction stages, six months (as proposed) could impose a significant burden on some classes of customer.

The AER notes Ergon's concerns that limiting the amount of the prepayment that can be required from a connecting customer places the risk on the DNSP instead of on the customer. However, the AER considers that this risk has been mitigated in the guideline by allowing a DNSP to require prepayment for any sunk costs, (including administration and design costs as well as the purchase of any specialised equipment). Thus, DNSPs are able to ensure that any costs incurred, are recovered in the event that the connection applicant cancels the connection.

For clarity, the AER notes that where a service is contestable and a customer engages a third party to perform the connection works, the terms and conditions under which this work is performed is a matter for negotiation between the customer and the service provider. However, the AER considers that the prepayment section of the guidelines apply to the total connection charge and as such, would generally apply regardless of the classification of the service.

[40] ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.

8 Refund of connection charges for extension assets

The AER considers that requiring a customer to fund the full cost of an extension may result in a first mover disadvantage which may distort investment and impede development of the electricity network. The AER considers that the pioneer scheme is intended to remove this distortion and ensure that all customers connecting to a new area contribute equitably to the costs of extending the distribution network.

Accordingly, the AER considers that a pioneer scheme must consider the relative use of the network by the initial customers and subsequent customers when determined how costs should be allocated. The AER appreciates that a pioneer scheme may result in administrative costs and therefore considers that a threshold, under which the pioneer scheme would not be available, is appropriate.

8.1 Legislative requirements

Under clause 5A.E.3(c)(6) of chapter 5A the connection charge guidelines must describe the method for calculating:

- The amount of a refund of connection charges for a connection asset when an extension asset originally installed to connect the premises of a single retail customer is used, within seven years of its installation, to connect other premises and thus comes to be used for the benefit of two or more retail customers; and
- The threshold below which the refund is not payable.

8.2 AER final decision

The AER's final decision is set out in section 6 of the Connection charge guidelines for electricity retail customers.

In summary:

- For the purpose of calculating the refund under the pioneer scheme, the assets subjected to the pioneer scheme will be assumed to depreciate in a straight line manner over 20 years.
- DNSPs should develop a pioneer scheme that has regard to the length (extent) of an extension and capacity of the assets used by subsequent customers.
- The pioneer scheme should not be applied for payments under $1000 ($, real 2012).
- The pioneer scheme should apply to real estate developers

  When extensions are contestable and undertaken by an independent service provider, DNSPs will establish a pioneer scheme based on the amount it would have charged a pioneer customer to perform the works had the DNSP undertaken the works.

- A DNSP may provide a refund calculated in accordance with its pioneer scheme to either the current occupier of the premise or the original occupier (which paid for, or for part of, an extension) of the premise.

- If an original customer requests a connection to be constructed to a higher standard or capacity than the least cost technically acceptable standard, then only the cost of constructing the connection to the least cost technically acceptable standard or capacity will be subject to the pioneer scheme.

- If a distribution network service provider requires an extension be built to a higher standard or capacity than required by an original customer, other than a real estate developer, the original customer will only pay for the extension to the standard required or capacity for its connection service and only the extension necessary for the original customer will be subject to a pioneer scheme.

- If a distribution network service provider requires an extension to be built to a higher standard or capacity than required by a real estate developer, and the distribution network service provider charges a capital contribution for augmentation to the network to allow for forecast load growth—as allowed by clause 5A.E.1(c)—then the extension must be subject to a pioneer scheme, unless:

    - The real estate developer and distribution network service provider agree, as allowed by clause 5A.E.1(c), that the distribution network service provider only charge the real estate developer for the portion of the total cost attributable to the real estate developer.

8.3 Reasons

8.3.1 Draft decision

The draft guideline was inadvertently drafted so that payments under hew pioneer scheme would only be made to the original customer. The draft decision was also unclear on whether the current occupier of a premise or the original customer should receive the refund.

The draft guideline applied a threshold of $500 beneath which the pioneer scheme would not apply.

8.3.2 Submissions

ActewAGL considered the pioneer scheme to be administratively complex. It considered the $500 threshold set in the draft decision to be too low.[41] CitiPower and Powercor also considered the threshold should be increased and indexed.[42]

EWOV recommended an amendment to the draft guideline to allow for all customers contributing to a pioneer scheme to be entitled to a reimbursement, regardless of whether they are original or subsequent customers.[43]

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41 ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 8.

42 CitiPower and Powercor, Draft connection charges guideline, 14 February 2012, p. 1.

Ausgrid and Aurora considered that the pioneer scheme should provide a refund to the current owner of the premise, rather than to the party who owned the premise at the time a payment is made under the pioneer scheme. This was considered appropriate on the basis that the connection cost would be factored into the sale price of the premises.[44]

Additionally, several DNSPs did not consider the pioneer scheme should be applied to real estate developers. Some DNSPs objected to this on the basis that real estate developers would pass on their costs to purchasers of the land and therefore access to refunds under the scheme would result in a windfall gain to the real estate developer. Other DNSPs considered it would result in undue administrative complexity if the scheme applied to real estate developers. Finally, some DNSPs questioned the AER's interpretation of 'retail customer' in chapter 5A and argued that the term does not encompass real estate developers.

8.4 AER consideration of submissions

In the AER's draft decision, a refund under the pioneer scheme would not be payable where the amount charged to a subsequent customer is less than $500. CitiPower and Powercor submitted the threshold should be increased to $1,000 and indexed. ActewAGL contended the threshold should be set at no less than $2,000.[45]

The AER has considered the effects of its draft decision and has decided the method for calculating the threshold below which a refund is not payable should be described in the guidelines as $1,000 indexed annually for inflation. The AER considers that the administrative cost to a DNSP to distribute refunds of under $1,000 to the customers already connected to an extension would be high when compared to the relatively small refund each customer would receive. However, a refund of $1,000 may represent a reasonable proportion of a customer's total initial connection cost. Where this is the case, the AER does not want to unreasonably limit the refund available to existing customers. However, the AER accepts that if an extension is longer and more costly, the scheme could become an administrative burden on DNSPs if the threshold is set at $500.[46] The AER considers that its method for calculating the threshold in the draft decision did not appropriately balance the administrative costs to DNSPs against the need to ensure connection applicants paying for smaller extensions can recover a reasonable proportion of the costs. The AER considers that a method of calculating a threshold based on inflation indexation staring at $1,000 achieves this balance. A higher threshold such as that submitted by ActewAGL was not adopted because it could result in individual customers foregoing up to $2,000 in refunds, which the AER considers material in this context.

CitiPower and Powercor also submitted that the threshold should be indexed for CPI. The AER agrees with this submission as it is an appropriate method for calculating the threshold that ensures it remains up to date and accordingly, the AER has described the method for

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43 EWOV, AER's draft connection charge guidelines, 16 February 2012, p. 1, 2.

44 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 9. Aurora, Draft connection charge guideline, 16 February 2012, p. 7.

45 ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 8.

46 For example, if an extension cost $20,000 extension, 40 customers would need to join before a $500 threshold would bind. With a $1,000 threshold, each customer already connected would receive only $12.5 if a 20th customer connected,

calculating the threshold by reference to 2012 dollars. The AER would generally consider the forecast CPI determined in DNSPs' distribution determinations as one appropriate manner to index the threshold in accordance with the method described in the final guidelines.

The AER did not intend for the pioneer scheme rebate to be limited to one customer although, as pointed out by EWOV, the draft guidelines may have had this effect. Also, the drafting of chapter 5A does not limit rebates under this scheme to only the original customer. The AER has redrafted the guidelines to clarify that the pioneer scheme is intended to apply to multiple customers connected to an extension. The AER considers that protection is still afforded to DNSPs for the administrative cost of applying the pioneer scheme to subsequent customers by the 7 year time limit imposed by chapter 5A and the threshold beneath which the scheme will not apply.

Recipient of refund made by the pioneer scheme

Some submissions indicated that a refund under a pioneer scheme should be paid to the current owner of the premises and not to the original owner who funded the extension (or portion of the extension). The basis for this was that the previous owner can recover its cost from the sale of the property and therefore would make a windfall gain if they also received a refund. However, the AER considers that if the existence and method of operation of a pioneer scheme is specified upfront, then the parties can incorporate the effects of the pioneer scheme (and potential for a rebate) into the price of the premises. This allows the parties to negotiate prices in a fully informed manner concerning the operation of the pioneer scheme and the potential benefits of the scheme.

On the basis that the refund (or potential for it) can be factored into the sale price of the premises, the AER considers that providing the rebate to either the initial or subsequent customer is appropriate, and will allow DNSPs to develop their schemes in either manner.

Application of the pioneer scheme to real estate developers

The AER considers that real estate developers are a sub-group of retail customers and generally have the same rights and obligations as other retail customers under chapter 5A except when chapter 5A expressly (or by necessary implication) states otherwise. The AER considers that Chapter 5A contains a number of express provisions which inform this interpretation. Significantly, clause 5A.E.1 itself provides:

> A retail customer (other than a non-registered embedded generator or a real estate developer)...

This clause expressly contemplates that in this provision a real estate developer is just one type of retail customer. Accordingly, the AER considers that real estate developers are entitled to access a pioneer scheme like any other retail customer. However, the AER notes the DNSPs concerns regarding the administrative burden of applying a pioneer scheme to these customer and that many jurisdictions have alternative arrangements (such as HV equalisation schemes) in place which mitigate the need to apply a pioneer scheme to real estate customers.

An important aspect of a pioneer scheme is to allow the first mover to recover the cost it expends to create a network extension through charges to subsequent customers who benefit from the network extension. DNSPs may charge the first mover the full amount of a connection because there is uncertainty regarding how many or when a subsequent customer

may connect to the extension funded by the initial customer. However, in situations where it is known that numerous additional customers may connect to the extension—for example, where the total number of subdivisions of a new town has been set by the planning authority—the appropriate amount to charge each customer could be accurately determined in advance and the administrative costs of applying a pioneer scheme may outweigh the benefits of the scheme. In this situation, a DNSP may elect to only charge the pioneer customer the fair share of the customer's contribution to the overall cost of the network extension, similar to the effect of applying a pioneer scheme. Under such an arrangement, the risk to a pioneer customer of paying for more than would otherwise be necessary because subsequent customers are not connected immediately afterward, or connecting more than 7 years later, is removed. The AER notes that under clause 5A.E.1(c)(5) a DNSP may, subject to an agreement to the contrary, include a reasonable capital contribution towards the cost of augmentation of the distribution system to the extent necessary to provide the service, and to any extent further necessary that a prudent service provider would consider necessary to provide efficiently for forecast load growth.

The AER considers where a DNSP builds an extension to provide for future load growth, if the DNSP and a real estate developer agree that the real estate developer need only make a capital contribution to the extent necessary to cover the real estate developer's expected usage of the extension, then there is no need to apply a pioneer scheme to the assets. The AER considers this to be an appropriate mechanism to balance the risks to the existing customers while minimising the administrative burden. The AER has amended the guideline accordingly.

9 Security fee scheme

Securities fees, whether by prepayment or financial guarantee, help to insure DNSPs against the risk of failing to collect the total estimated incremental revenue associated with a connection offer. In the absence of a security scheme, if the DNSP does not collect the total estimated incremental revenue, then the shortfall would eventually be recovered through higher network tariffs to all other network users.

9.1 Legislative requirements

Under clause 5A.E.3(c)(1) and (2), the AER's guideline must:

- describe the method for determining charges for *premises connection assets*; and
- describe the circumstances (or how to determine the circumstances) under which a DNSP may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer for the provision of a connection service.

9.2 AER final decision

The AER's final decision is set out in section 10 of the connection charge guidelines for electricity retail customers.

In summary, the circumstances (or how to determine the circumstances) under which a DNSP may receive a security fee are as follows:

- A DNSP may only require a security fee if it has included the method of calculating and charging a security fee in its connection policy.
- Subject to having a security fee scheme, if a DNSP fairly and reasonably assesses that there is a high risk that the DNSP may not earn the estimated incremental revenue then the DNSP may require a security fee.
- A security fee may be in the form of either a prepayment, or a financial guarantee in the form of a bank guarantee.
- The amount of the security fee must not be greater than the amount of the incremental revenue which the DNSP assesses as having a high risk of not being recovered.
- The security fee may not exceed the present value of the incremental costs the DNSP will incur in undertaking any relevant new works and augmentation.
- Where the security fee has been provided as an upfront payment, the DNSP must rebate the security fee annually over the period of the security fee scheme. The first rebate must be allowed in the calendar year after the connection services are provided.
- Where the security fee has been provided as an upfront payment, the DNSP must pay interest on the security fee, commensurate to the manner in which the security

fee is treated by the DNSP. Interest is not be payable on security held in the form of a bank guarantee.

- The security fee scheme must not result in a DNSP recovering more than the total estimated incremental revenue, unless the actual incremental revenue realised over the period of the security fee scheme exceeds the estimated incremental revenue, and the DNSP refunds the security fee in full.
- The connection applicant should not be rebated an amount greater than the security fee deposit plus interest from the DNSP in total, over the security fee period.

9.3 Reasons

Draft decision

The AER's final decision is not materially different from the draft decision. The AER has made minor amendments to the draft decision to make the security fee scheme arrangements clearer.

Submissions

Submissions generally agreed with the AER's position on the security fee scheme. Ergon, however, questioned how the rebate might work if no additional load connected to the network.[47]

9.4 AER consideration of submissions

Regarding Ergon's submission, under the guideline, a payment would not need to be made if no rebate is due in accordance with the DNSP's scheme, as long as a mechanism is in place to ensure a payment would be made if it was due—for example a rebate would not be due if the incremental revenue for the year equalled the estimated incremental revenue. The AER considers that if it is unlikely any load will be connected, then a DNSP's estimate of incremental revenue would be zero. In such a case, no security fee would be necessary for that year and correspondingly no refund would be made in that year. The AER has added a note to the connection charge guidelines to make this position clear. The AER has also made minor editorial changes to make the security fee scheme conditions clearer.

[47] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 5.

10 Non-registered embedded generators

The AER considers that non-registered embedded generators, like all connection applicants, should be provided with user pays signals and should receive no cross-subsidy from existing customers and vice versa. Accordingly, embedded generators should generally be treated in a similar manner to all other connection applicants. However, the AER has made some alterations to its guidelines with respect to embedded generators, taking into account the particular nature of the services required.

10.1 Legislative requirements

Under clause 5A.E.3(c)(1), (2), (3) and (5) of the NER the AER's guideline must:

(1) describe the method for determining charges for premises connection assets; and

(2) describe the circumstances (or how to determine the circumstances) under which a Distribution Network Service Provider may receive a capital contribution, prepayment or financial guarantee from a retail customer or real estate developer for the provision of a connection service; and

(3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and

....

(5) describe the methods for calculating the augmentation component for the connection assets and, if the augmentation consists of or includes an extension, the extension component of a connection charge;

10.2 AER final decision

The AER's final decision is set out in section 7 of the connection charge guidelines for electricity retail customers. In summary:

- The capital contribution for non-registered embedded generators that are also load customers will be calculated based on the total cost of the works required to support both the generation (expected electricity output) and load components of the connection service.
- No incremental revenue will be received by the DNSP from the generation component.
- The relevant load for the purposes of calculating shared network cost will be the gross peak demand of the load, regardless of the embedded generator's expected electricity output.
- Non-registered embedded generators which seek to remove a specific network constraint, must pay for the cost of removing the constraint. The AER considers services related to removing shared network constraints for specific users, such as embedded generators, would generally be an alternative control service, negotiated

service or unclassified service. However, a DNSP's normal asset management may lead to a DNSP funding such shared network augmentation if there is a demonstrable net benefit to other network users. Non-registered embedded generators will not be charged a unit rate for shared network augmentation (based on the generation output).

10.3 Reasons

10.3.1 Draft decision

The AER considered that non-registered embedded generators should pay for the cost of removing specific upstream shared network constraints, unless there is a demonstrable net benefit to other network users.

To facilitate connection, the AER considered that DNSPs should propose constraint reduction services, such as a fault level mitigation service, which relate to augmenting the shared network to reduce network constraints. DNSPs should also propose an appropriate form of control for these services. If a DNSP proposes such a service, the AER will examine the appropriate service classification and form of control in accordance with section 6.2 of the NER.

10.3.2 Submissions

Submissions raised multiple concerns with the AER's position on embedded generators. Ausgrid questioned how embedded generators would be charged in a contestable environment. Ausgrid also requested explanation of the AER's statement that non-registered embedded generators will pay a connection charge on the cost of connecting either its generation or load capacity, whichever amount is greater.[48]

DNSPs generally agreed that embedded generators should pay the cost of connection and to remove specific upstream shared network constraints. However, the CEC considered there are barriers to connection of non-registered embedded generation and that requiring embedded generators to meet the cost of augmentation enhanced these barriers.[49] Both the CEC and MEU commented on the similarities or differences between non-registered embedded generators and transmission connected generators. The MEU was particularly concerned that the draft guidelines appeared to require embedded generators to remove constraints, whereas transmission connected generators only pay shallow connection costs.[50]

10.4 AER consideration of submissions

The AER has reconsidered parts of its draft decision, particularly its statement that that non-registered embedded generators will pay a connection charge on the cost of connecting for either its generation or load capacity, whichever amount is greater. As stated above, the AER considers that non-registered embedded generators, like all connection applicants, should be

[48] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 9.
[49] Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 3.
[50] MEU, Connection charge guidelines, 16 February 2012, p. 2.

provided with user pays signals and that the connection charge guideline should ensure they receive no cross-subsidy from existing customers and vice versa, hence, the AER agrees with Ausgrid that the connection applicant should fund the total cost of its connection including both the load and generation components of the direct connection works. The wording in the draft guidelines was intended to ensure that there is no double recovery by DNSPs, however, the AER accepts the drafting was not clear on this point and has re-drafted this section in the final guidelines.

The AER considers that in general embedded generators can be treated in the same manner as load customers and this is reflected in the connection charge guidelines through the treatment of connection services, which are classified as alternative control, negotiated or unclassified. As discussed further below, standard control services which relate to shared network augmentation, should not be charged to non-registered embedded generators using an average measure in the same manner as for load customers.

The key difference between embedded generators and load customers, which requires different treatment with respect to connection charges, is that embedded generators do not contribute to the cost of the shared network through DUoS charges.

The AER considers that (consistent with transmission connected generators), non-registered embedded generators will not generally be required to make a contribution towards the historical costs of the shared network, which are funded through DUoS charges to network users. This is appropriate because embedded generators have no firm right of access to the shared network and are subject to network constraints for exporting electricity. As such, the cost-revenue-test under section 5 of the connection charge guideline will only include connection services which relate to customer specific incremental costs.

However, if a non-registered embedded generator is connecting (or already connected) to the network and seeks to remove constraints in the upstream shared network, the non-registered embedded generator should meet the cost of removing these constraints. This is appropriate because the constraint would be removed for the benefit of the embedded generator only and the AER considers that if equipment is added for generators, which no other customers require, then the embedded generators should meet the cost. Otherwise all existing electricity users would fund the requirements, which is not consistent with user pays principles and may also create cross subsidies between classes of users.

However, the non-registered embedded generator may not need to meet the cost of a constraint where DNSPs' normal asset management practices would lead to the DNSP funding such shared network augmentation, because there is a demonstrable net benefit to other network users.

11 Real estate developers

The AER considers that in most circumstance a real estate developer may be treated in the same manner as any other connection applicant. However, chapter 5A make it clear that real estate developers should be treated differently in terms of the augmentation charge threshold and may be charged additional amounts for efficiently forecast load growth. Additionally, as a real estate developer is unlikely to have an ongoing supply contract after the connection is completed, the impact of this is factored into the connection charge guideline.

11.1 Legislative requirements

Paragraphs 5A.E.1(b) and (c)(5) of the NER apply some specific requirements to connections involving real estate developers:

> (b) A retail customer (other than a non-registered embedded generator or a real estate developer) who applies for a connection service for which an augmentation is required cannot be required to make a capital contribution towards the cost of the augmentation (insofar as it involves more than an extension) if:
>
> > (1) the application is for a basic connection service; or
> >
> > (2) a relevant threshold set in the Distribution Network Service Provider's connection policy is not exceeded.
>
> (c) Subject to paragraph (b), in determining connection charges in accordance with its connection policy, a Distribution Network Service Provider must apply the following principles:
>
> ...
>
> (5) despite subparagraphs (1) to (4) if augmentation of the distribution system is necessary in order to provide, on the application of a real estate developer, connection services for premises comprised in a real estate development, connection charges for the services may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of augmentation of the distribution system to the extent necessary to provide the services and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast load growth;

11.2 AER final decision

The AER's final decision is set out in section 8 of the connection charge guidelines for electricity retail customers.

In summary, as outlined in clause 5A.E.3(c)(4), the shared network augmentation charge threshold will not apply to real estate developers.

Charges for components of a real estate developer's connection that are classified as standard control services should be determined in a similar manner to other retail customers under section 5 of the guidelines, with the following qualifications

- A real estate developer's incremental revenue is the estimated revenue that a distribution network service provider will receive from all the sites/connection services within a real estate development.
- The assumed connection period will be calculated having reference to the intended usage of the development site.
- A real estate developer is to be treated as a single customer for the purposes of calculating a capital contribution under this guideline.
- A real estate developer's incremental cost (for inclusion in the cost-revenue-test) for augmentation (both ICCS and ICSN) may include the costs of the connection services and, to any further extent that a prudent service provider would consider necessary, the cost of providing efficiently for forecast load growth.

The AER has also clarified that real estate developers are entitled to access a pioneer scheme for extension assets they fund unless the real estate developer and DNSP agree otherwise (this may occur, for example, if a DNSP offers a equalisation scheme). Any pioneer scheme would apply to connection applicants connecting to the extension assets outside the pioneer developer's site boundary and not to premises connecting within the development.

11.3 Reasons

11.3.1 Draft decision

The AER's draft decision stated that, subject to a contrary agreement with the developer, DNSPs are able to include costs for connection services that a prudent service provider would consider necessary to provide efficiently for forecast load growth in real estate developers' connection charges.

A real estate developer will be treated as a single customer for the purposes of a connection application.

11.3.2 Submissions

Ergon considered that there are situations where a real estate developer requests a network connection which requires augmentation, however no load will connect for a substantial period of time. Ergon considered that where this is the case, the application of a cost-revenue-test would not be appropriate.[51]

Aurora considered that real estate developers offer no load and, therefore, provide no incremental revenue to compensate the incremental costs of installing the infrastructure. As

[51] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 5.

such Aurora considered that real estate developers should fund the entire cost of the augmentation.[52]

Ausgrid considered there are circumstances in high growth areas where it would be prudent to build spare capacity into the connection assets funded by the real estate developer. However, rather than entering into a pioneer scheme, a more efficient approach would be for the DNSP to fund this spare capacity as part of its capital expenditure program.[53]

11.4 AER consideration of submissions

While the AER notes that a real estate developer does not provide an ongoing revenue stream, those parties who purchase land in developments will provide this revenue. If this revenue is not accounted for in the calculation of the capital contribution for standard control services, then the real estate developer would pass these costs onto the eventual purchasers. As such, the eventual purchasers of the premises would be charged for a connection as if they were providing no revenue to the DNSP. This treatment would be different from other connecting customers and the AER does not consider that it would be consistent with the principles of chapter 5A.

The AER notes Ergon's submission regarding the potential delay between when the DNSP provides the connection service and when load connects and begins to provide a revenue stream to the DNSP. However, the AER does not consider that this invalidates the application of the cost-revenue-test to standard control services. Rather, DNSPs should take this, and any similar issues, into consideration when calculating the net present value of the expected incremental revenue the DNSP expects to derive from the connection. If the take up of load is anticipated to occur over an extended period, this would decrease the net present value of the expected revenue stream and conversely increase the capital contribution.

The AER agrees with Ausgrid that requiring real estate developers to only pay for the capacity they use may be an appropriate and administratively easier option. However, a DNSP is permitted by clause 5A.E.1(c)(5) of the NER to require a reasonable capital contribution for augmenting the distribution system to the extent necessary to provide the service and to any further extent necessary that a prudent service provider would consider necessary to provide efficiently for forecast load growth. If a DNSP chooses to charge a real estate developer for this future load growth, then the DNSP will be required to enter into a pioneer scheme to cover the assets funded by the real estate developer. The AER notes that in some jurisdictions DNSPs have mechanisms, such as HV equalisation schemes, which are intended to ensure that real estate developers are charged a reasonable capital contribution without resorting to the complexity of a pioneer scheme, The AER considers these types of arrangements can generally fit within clause 5A.E.1(c)(5), which allows for DNSPs and real estate developers to reach agreement on a reasonable capital contribution.

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[52] Aurora, Draft connection charge guideline, 16 February 2012, p. 5.

[53] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 10.

12 Treatment of Augmentation Assets

12.1 Legislative requirements

Under clauses 5A.E.3(c)(7) of the NER the AER's guideline must:

(7) describe the treatment of augmentation assets.

12.2 AER final decision

The AER's final decision is set out in section 11 of the connection charge guidelines for electricity retail customers.

In summary, DNSPs will need to ensure that capital contributions or gifted assets are treated in a manner which does not allow them to receive a regulated rate of return on assets which have not incurred a capital cost.

12.3 Reasons

12.3.1 Draft decision

The AER's draft decision stated that a DNSP funded augmentation asset will be included by the DNSP in its regulated asset base (RAB) and all customer capital contributions paid to the DNSPs should be netted off the RAB.

12.3.2 Submissions

Ausgrid and Endeavour questioned the AER's statement that capital contributions should be netted off the RAB. Both indicated that connection assets funded by the customer should be included in the RAB at zero value to ensure the assets are recognised for the purpose of allowing for the recovery of operational and maintenance costs related to these assets.[54]

Ergon considered that the guideline should not prescribe an accounting treatment for augmentation assets but rather, the issue should be treated in each DNSP's distribution determination. Ergon also queried how this clause would relate to alternative control services, particularly if the cost of providing the service was greater than the charge approved by the AER. Ergon considered the difference would need to be added to the RAB and so would require the service to be split between standard control and alternative control services. [55]

[54] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 10. Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 5, 6.

[55] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 3.

12.4 AER consideration of submissions

The AER has noted the submissions it received and agrees with Ergon that the exact accounting treatment of augmentation assets should be set out in the relevant distribution determination. The AER has clarified the drafting of this provision. DNSPs may propose an appropriate treatment in their distribution determination.

The AER considers that DNSPs should be able to recover the costs that they incur. However, it is important that DNSPs are not allowed to earn a regulated rate of return on assets gifted to them or paid for by customers' capital contributions.

A. Summary of Submissions

Submission	AER Response
Regulatory Regime	
Actew - Service classification and the guideline – the application of the guidelines depends on how the connection services are classified by the AER. However, the AER has indicated that the classification of connection services is open to review, through the separate Framework and Approach review processes. This creates uncertainty for distribution network service providers (DNSPs) and network users.[56]	The AER recognises that DNSPs have questions regarding the manner in which services will be classified in future regulatory control periods. These services will be classified in accordance with section 6.2 of the NER. The process of determining the service classification is independent of this connection charge guideline and so DNSPs' questions cannot be addressed in the connection charge guideline. However, the AER considers the consultation process required in developing the framework and approach process and the distribution determination (where the AER will ultimately decide upon an appropriate service classification) is sufficient to resolve these concerns. The AER encourages DNSPs to discuss these issues in detail with the AER as part of this process.
Actew– the guidelines need to recognise the wide range of connection charging arrangements and situations currently and potentially in place across the national electricity market, as required by the Rules. ActewAGL Distribution is concerned that the AER is attempting to provide detailed prescriptions in the draft guidelines, and these will not provide the flexibility necessary to deal with diverse circumstances.[57]	The AER has taken this submission, and similar submissions into account and has sought to make the guideline less prescriptive.
Ausgrid - Ausgrid considers that if shared network augmentation is classified as standard control service, then the connection charge guidelines needs to enable NSW DNSPs to recover the costs of the services from the connection applicant. Therefore the guidelines should include provisions to allow the DNSP to propose an alternative approach to the cost revenue test.[58]	The AER considers that Ausgrid's proposal is not required. A classification of standard control service would not generally be applied if the cost of a service can be directly attributed to an individual customer. In general, the cost of providing standard control services are recovered through DUoS charges and the AER's connection charge guideline allows an additional capital contribution in limited situations. If a particular service classification is inappropriate or unworkable for any connection services within the NSW framework, then DNSPs should make the AER aware of this during the framework and approach paper consultation period. The AER considers this is primarily an issue of applying the appropriate service classification.

[56] ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 2.
[57] ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 2.
[58] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 5.

Submission	AER Response
Aurora - In effect, the AER's application of the cost-revenue test relieves connecting customers from the real upfront cost of connecting, and requires all customers to make significant contributions to new connections through DUoS charges. As noted in Aurora's previous submission on the AER's consultation paper, a consequence of this approach,, which relies on DUoS for the recovery of the value of most connection assets, is an increase in the value of the Regulatory Asset Base, with a subsequent impact on electricity prices. Further, the key principles contained in Chapter 5A, clear price signalling and removal of cross subsidies, are not fully achieved under this approach.[59] Aurora considers the AER's revised position to not prescribe arrangements for works contestability appropriate. [60]	The AER considers that clear price signals and the removal of cross-subsidies is achieved for any service which is classified as alternate control, standard control or unclassified. The AER considers these are important mechanisms for ensuring user pays signals. Standard control services are generally recovered from all customers as DUoS payments and have no clear price signals and there is the potential for cross subsidies to arise. The AER has taken the principles in Chapter 5A into account by attempting to improve the price signals and remove any cross-subsidies by implementing a cost revenue test, which ensures they pay at least their incremental cost. The guideline requires customers to contribute to the cost of standard control connection services if the customer's incremental cost is estimated to be greater than their DUoS contribution. As such, connection applicants will pay in full for their incremental cost. As each customer is meeting its incremental cost (albeit a portion of these costs will be recovered over an extended period of time) existing customers are not required to contribute towards the cost of connecting new or upgraded connections.
JEN supports the AER's approach of applying a cost-revenue-test to meet the requirements of clause 5.A.E.1(c) (6). Additionally, the AER proposes to only apply to connection services which have been classified as standard control. This proposal is most welcomed as it addresses many of the concerns JEN had with respect to the AER's preliminary approach in that consultation paper that preceded this draft guideline.[61]	Noted
Essential Energy believes the guidelines will still create confusion for NSW customers, retailers, distribution network service providers (DNSPs) and Accredited Service Providers (ASPs) in trying to interpret their applicability to a competitive market.[62]	The AER considers that the connection charge guideline in conjunction with appropriate service classifications facilitate the continuation of the NSW contestable framework.
Essential Energy remains concerned that the AER seems to have based its starting point for drafting the guidelines on jurisdictional frameworks where contestability is currently limited or does not exist. Essential Energy believes that it would be desirable to move all jurisdictions to contestability in the future for the benefit of all customers, and so the starting point could be a working competitive model such as that already in existence in NSW.[63]	The AER notes that there is little need to regulate connection charges in jurisdictions where contestability is well developed and so considers it appropriate that much of the guideline focuses on situations where there is little or no contestability.

59 Aurora, Draft connection charge guideline, 16 February 2012, p. 2.
60 Aurora, Draft connection charge guideline, 16 February 2012, p. 6.
61 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 3.
62 Essential Energy, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 1.
63 Essential Energy, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 1.

Submission	AER Response
Essential Energy is of the view that the NSW connection charge framework would satisfy the stated purpose of the guidelines under Chapter 5A of the National Electricity Rules (NER).[64]	Noted
ENERGEX believes that the requirements of the Draft Guidelines impose a disproportionate administrative burden on DNSPs, which will result in increased costs which are ultimately borne by customers.[65]	The connection charge guideline and the regulations it imposes are necessarily complex, however, where possible, the AER has sought to reduce the administrative impact. For example, the AER will allow pre-calculated capital contributions and has allowed an optional security fee scheme etc. The steps the AER has taken to reduce the administrative burden on DNSPs are discussed in more detail in the relevant sections of the explanatory note.
CEC welcomes the clarity which is expected to result from the process of structuring DNSP connection charging policies on a NEM-wide basis through the National Electricity Rules (Rules). [66]	Noted
Ausgrid - The AER must develop and apply the guidelines so that they operate as guidelines against which consistency can be measured, not inflexible rules. There are several significant areas where the AER should consider whether the guidelines meet the requirements of the rules and could operate as guidelines against which consistency can be measured.[67]	The AER has allowed for additional flexibility in its final connection charge guideline, which it considers should alleviate Ausgrid's concerns.
Section 1 - Shared Network Augmentation charge Threshold	
Ausgrid - There is no scope for the AER to require the threshold to be submitted separately from the connection policy. Ausgrid has analysed the requirements for the threshold set out in section 2 of the draft guidelines and whilst these do have some flavour of principles, they have been cast as approval criteria and therefore do not operate as principles for a threshold to be set. The DNSP's connection policy must then specify the threshold, which is then submitted for approval.[68]	The AER agrees with Ausgrid's position that no separate approval is required. The AER has revised its drafting to make this clear. The DNSP's connections policy must include a threshold which must comply with the requirements of the connection charge guidelines. The AER will assess the thresholds when approving the DNSPs connection policy.

64 Essential Energy, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 1.
65 Energex, AER draft connection charging guidelines, 17 February 2012, p. 1.
66 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 1.
67 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 3.
68 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 3.

Submission	AER Response
Ausgrid - Clause 2.1.6 seeks to set a default position for the threshold if the AER is not satisfied that the requirements in 2.1.3 and 2.1.4 are met. Again this is not consistent with Chapter 5A of the Rules. A default threshold as expressed by the AER is not a principle but a firm requirement.	The AER has removed its default thresholds, instead allowing DNSPs to nominate thresholds in each area of its network. The AER will assess these thresholds against the principles in the connection charge guideline. However, as this default threshold was removed, the AER considered it appropriate to reflect the intention of the rules to generally exclude retail customers from paying for augmentation (insofar as it involves more than an extension).
Ausgrid - we seek to clarify is that the reference in clause 2.1.3 should be to a "network augmentation charge threshold" rather than "network augmentation charge".	The AER confirms this is the case. The AER has amended clause 2.1.3 of the draft guideline accordingly.
Ausgrid - despite the AER's comments in the explanatory statement regarding what happens if there is no clear break point, in Ausgrid' view, 2.1.6 requires the DNSP to comply to clauses 2.1.3(a), 2.1.3(b) and 2.1.4 in order to for the AER to approve the DNSP's proposed shared network augmentation threshold. This requirement creates a problem for Ausgrid because historically our policies for seeking capital contributions are not based on a physical breakpoint as required by 2.1.3(b). Instead, Ausgrid's capital contribution policies apply IPART's capital contribution determination, which applies a capacity based threshold to rural and large load customers founded on economic principles rather than physical characteristics. Therefore, some of Ausgrid's thresholds would fail to meet the requirement of 2.1.3(b) (e.g. rural connections)..[69]	The AER has amended the guideline to make the requirement to have a clear natural breakpoint optional. However, the AER considers that the threshold should generally still be set to distinguish between customers with identifiably different characteristics. Otherwise customers with the same characteristics would be treated differently. If a DNSP chooses not to apply a clear natural breakpoint, the DNSP must demonstrate that its threshold does not result in undue cross subsidisation between customers.
Ausgrid - In NSW, thresholds for payment for network augmentation have historically been based on capacity rather than demand (for large load and rural customers). A threshold based purely on demand would be problematic to adopt especially in the case of rural customers. We consider that we would not be able to charge capital contributions for rural customers if this clause was retained in its current form. We request that clause 2.1.7 be reworded to allow for a threshold to be based on capacity or in accordance with the principles set out in 2.1.4 and 2.1.5. any other measure the AER thinks fit.[70]	The AER considers that demand is what a customer requires, whereas capacity is what a DNSP provides. Accordingly, a DNSP's capacity is necessarily related to demand (ie, when determining the requisite network capacity, a DNSP must ensure that demand will be met). However, it is possible that a customer will never utilise the full capacity that a DNSP installs, and so capacity would not reflect the customer's impact on the need for augmentation as accurately as demand. In practice, there may be little difference in operation between using a threshold based on demand and capacity. However, the AER considers that demand is the appropriate measure to set the augmentation charge threshold, as it will ensure the customer is only charged for augmentation if its estimated demand (and not theoretical maximum capacity) imposes a substantial burden on the network. The AER also notes that consumption, which is a measure of how much energy is used, is not a clear driver of the need for augmentation and therefore is not appropriate for the threshold.

[69] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 6.

[70] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 7.

Submission	AER Response
JEN supports the principles and requirements set out in section 2 of the draft guideline. JEN suggests that the requirement in section 2.1.1 be modified to exempt a distribution network service provider from having to seek the AER's approval of shared network augmentation threshold, if the distribution network service provider decides to accept the default thresholds specified in section 2.1.6. JEN suggest the words "threshold or thresholds" be inserted as shown below in section 2.1.3.71	As discussed above, the AER has removed its default thresholds to allow DNSPs greater flexibility. The thresholds determined by individual DNSPs will need to be included in their connection charge policy and will be approved by the AER in the distribution determination.
Aurora supports the setting of a fixed demand threshold and the AER's approach in this regard. [72]	Noted
Section 2 - Total connection charge	
Ausgrid - Clause 1.1.4(a) sets out that in determining the total connection charge for each component the DNSP must do so in a fair and reasonable manner. This clause is redundant because the DNSP's connection policy, must be consistent with the connection charge principles in clause 5AE.1.[73]	The AER accepts that clause 5AE.1 has reference to charges being reasonable and that DNSPs' connection policies must comply with this clause. However, the AER considers there is value in repeating this principle as it is fundamental to how connection charges are calculated.
Aurora - Aurora agrees with the AER's preference of introducing a cost revenue test to cover all connections, and concurs with the AER's position that the customer should pay a capital contribution equal to the difference between the cost of connecting the customer and the incremental revenue to be collected as a result of the connection. Aurora considers the formula is appropriate to protect DNSPs from a requirement to effect non-economic connections, and provides a limited pricing signal to connecting customers.[74]	Noted

71 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 3.
72 Aurora, Draft connection charge guideline, 16 February 2012, p. 5.
73 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 5.
74 Aurora, Draft connection charge guideline, 16 February 2012, p. 2.

Submission	AER Response
Aurora - The approach does not provide the price signals to customers regarding the true cost of a connection, nor does it achieve the original intentions of the NECF to limit cross-subsidies. Under the approach implemented by the equation, the whole of the cost of the connection that falls within the threshold set by the present value of the revenue stream will be funded as part of the DUoS charges which are recoverable from the customer base of the tariff. [75]	The AER considers that clear price signals and the removal of cross-subsidies are achieved for any service classified as an alternate control service, negotiated distribution service or unclassified distribution service. The AER considers that applying these service classifications (where it is appropriate to do so) ensures that customers are provided with clear price signals. However, The cost of standard control services are generally recovered from all customers as DUoS payments and have no specific price signals related to the cost of an individual connection. A service classification of standard control may be applied when it is difficult to accurately attribute the costs of a service to an individual customer. However, the AER has taken the principles in Chapter 5A into account by attempting to improve the price signals and remove any cross-subsidies by implementing a cost revenue test. The AER considers that its connection charge guideline provides appropriate price signals to connection applicants.
Ausgrid - we agree that a component of the connection service provided by DNSPs includes 'support' services around the provision of design information, certification and inspection to support the current contestable regime in NSW (currently provided by Ausgrid as monopoly services), as well as the negotiation, preliminary enquiry, and preparation of connection offers required under the proposed Chapter 5A. These support services are not contestable. It is important to ensure that these services are referred to in the AER connection charge guidelines because in NSW, in the majority of cases, the services provided directly by the DNSP will be limited to the provision of these support services. This will ensure that the DNSP can recover the cost of providing these services.[76]	The AER considers these services are dealt with in its connection charge guideline. Specifically, the AER's connection charge formula includes both alternative control and standard control services. As long as these services are identified and classified, they will be incorporated into the connection charge. However, it is important that DNSPs identify the monopoly connection services it provides so that the services can be appropriately classified. This will ensure DNSPs can recover the costs of these services.
JEN - The way the total connection charge is clearly set out into the three connection service components is orderly. The proposal to apply the cost-revenue-test only to connection services classified as standard control is welcomed.[77]	Noted

[75] Aurora, Draft connection charge guideline, 16 February 2012, p. 3.
[76] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 5.
[77] JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 1.

Submission	AER Response
JEN supports principle 1.1.4 (b), however it does not agree with the way it is set out in the guideline. Linking subsection (ii) to the 'least cost technically acceptable standard' to an electricity demand is confusing and may have unintended consequence. JEN proposes section 1.1.4 (b) should be set out as: (b) Calculate the charge for each component on the least cost technically acceptable standard necessary for the connection service, unless the connection applicant requests a connection service or part thereof be performed to a higher standard. In which case the connection applicant should contribute the additional cost of providing the service to the standard requested c) Where the connection service involves augmentation to the shared network, [delete: in which case] the connection applicant should be charged no more for this service than the cost attributable to the connection applicant's electricity demand. JEN notes that section 1.1.4 is repeated in section 5.2.1 of the draft guideline. The principles expressed in section 1.1.4 relate to capital contribution. Therefore, the principles are best located in section 5.2.1. JEN considers that the entire section 1.1.4 can be deleted and section 5.2.1 be amended as proposed above.[78]	The AER has redrafted these clauses in its final connection charge guideline. The AER included these principles in the total connection charge because the AER considers that these principles apply equally to alternative control services, standard control services and the security fee scheme.
ETSA Utilities supports the AER's draft position that a DNSP Connection Policy (CP) may be made up of charges for multiple connection services[79]	Noted
Endeavour - The connection charge principles set limitations on capital contributions paid by retail customers towards the cost of an augmentation (insofar as it involves more than an extension). However, they would also appear to limit capital contributions paid by retail customers towards the cost of connection assets. As the extension is to the distribution system and not the distribution network, clause 5AE.1 (b) would prevent a DNSP from charging a capital contribution for connection assets for a basic connection service.[80]	Extension is defined in chapter 10 of the NER as: > An augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider. Accordingly, the AER considers that a DNSP can charge a capital contribution, for a basic connection service, for all connection assets which are outside the boundaries of the existing network. The AER does not agree with Endeavour that "clause 5AE.1 (b) would prevent a DNSP from charging a capital contribution for connection assets for a basic connection service."[81]
United Energy supports the adoption of the AER's formula. [82]	Noted

78 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 2.
79 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 2.
80 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 2.
81 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 2.
82 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 7.

Submission	AER Response
Section 3 and 4 - Method of determining charges for alternative control, negotiated and unclassified services	
Ausgrid - Clause 3.1.2 states that regardless of the classification of the service, the charge must still be in accordance with the requirements of Chapter 5A, including the connection charge principles and this connection charge guidelines. We consider that the wording of this clause does not reflect the AER's intention. We propose that this be redrafted to refer to "the charge for the services classified as negotiated distribution services must be in accordance with chapter 5A and the connection charge guidelines".[83]	Noted, the AER has clarified this clause.
Ausgrid - One area of uncertainty is the form of control that will apply to alternative control services and whether the DNSP will be able to recover the costs of providing a connection service that is classified as alternative control.[84]	The AER considers this is an issue of applying an appropriate service classification and form of control.
Endeavour – In developing the connection charging guidelines, the classification of services should accommodate the circumstances in which connection services may be provided by persons other than DNSPs (and are therefore contestable)'. Recommendation; A contestability regime is classified as an unclassified distribution service.[85]	The AER considers the connection charge guideline accommodates all service classifications appropriately.
Endeavour - As stated above, clause 6.2.8(a) of the NER provides that the AER may publish guidelines for the classification of distribution services and the control mechanisms for direct control services. Clause 6.2.8(a) of the NER would therefore appear to exclude from AER Guidelines the control mechanisms for distribution services other than direct control services. This includes the control mechanisms for negotiated distribution services and unclassified distribution services... As such, and consistent with clause 6.2.8(c) of the NER, clause 3.1.2 of the Draft Guideline referring to charge requirements regardless of classification should be deleted. Further, in this context, the Draft Guidelines should not apply to negotiated and unclassified distribution services.[86]	The AER does not consider that Chapter 5A restricts the guideline to dealing with direct control services only. Chapter 5A applies to all connection applications and the guideline is intended to implement the principles set out in chapter 5A. The AER also notes that while the explanatory statement has provided some general indication regarding how services might be classified, the connection charge guideline does not purport to be a guideline for clause 6.2.8(a) of the NER and the AER does not consider the statements in this connection charge guideline to be binding.

[83] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 7.
[84] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 7.
[85] Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 2, 3.
[86] Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 3, 4.

Submission	AER Response
Endeavour Energy supports the position stated in clause 3.1.1 of the Guideline. [87] Clause 3.1.2 of the Draft Guideline further provides that for negotiated or unclassified services, the charge must be agreed upon by the customer and the relevant service provider in accordance with the requirements of Chapter 5A, including the connection charge principles and the connection charge guideline'". As an unclassified service, Chapter 5A and Chapter 6 do not apply. This exclusion of contestable services from the Guidelines reflects that the connection services agreement is made between the ASP and the customer, and is not enforced by the either the DNSP or AER. [88]	While the AER agrees that chapter 6 of the NER does not apply to unclassified services, the AER considers that chapter 5A of the NER applies to connection offers made under chapter 5A more generally. As such any action performed in relation to a connection which falls under chapter 5A is subject to the requirements of Chapter 5A.
CEC – Clause 5A.C.3(a)(1) specifically relates to both parties undertaking negotiations in good faith. However, the application of this legal principal as it relates to generator connections under the current jurisdictional-level framework is that is can *only* be applied to the extent that the negotiation framework provides an unambiguously level playing field. In situations where the framework provides for one sided terms, these terms allow good faith to be interpreted as protecting the interests of the party represented by them. We recognise that this is not a matter for the AER to consider. However, we argue that this failing of process has carried-through to the Draft Guidelines and will result in ongoing disadvantage to the developers of non-market embedded generators. [89]	The AER notes CEC's concerns. The process and manner of negotiation between a DNSP and a connection applicant are codified in chapter 5A. Hence, as indicated by the CEC, the AER does not consider that its connection charge guideline can define the meaning of the term 'good faith'. However, the AER has a role in assessing any disputes regarding connection offers.
SP AusNet supports the AER's preliminary allocation of services to service classification, in particular, where the service is offered in a competitive market, no regulation should be required. SP AusNet supports the use of the Alternative Control Service classification to recover the costs of services that can be readily attributed to a particular customer, where there is an absence of competitive tension in the provision of these services. [90]	The AER has contemplated and given examples of service classifications to demonstrate the interaction between the guideline and service classification, however, these examples should not be considered as preliminary allocations.

87 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 4.
88 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 4.
89 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 2, 3.
90 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 7.

Submission	AER Response
United Energy is pleased that the AER has provided scope for the treatment of premise connection assets and extension assets as wither an Alternative Control Service, or as an unregulated service, depending on the extent to which competition exists in the relevant market. United Energy supports the AER's preliminary allocation of services to service classifications, in particular, where the service is offered in a competitive market, no regulation should be required. United Energy considers that the contestability arrangements in Victoria are consistent with this, as significant competitive tension underpins the provision of most connection services. United Energy supports the use of the Alternative Control Service classification to recover the costs of services that can be readily attributed to a particular customer, where there is an absence of competitive tension in the provision of these services. Notwithstanding this, despite being attributed to a specific connecting customer the costs of providing these services are likely to vary depending on the connection characteristics of that customer. [91]	As above
ENERGEX also notes the Guidelines provide that if a service is classified as an alternative control service, and the form of control can result in the actual cost of providing the connection being greater than the allowed fee for that service (e.g. under a pricing formula), then it may be inappropriate for the difference to be added to RAB (as required by the Guidelines). The Guidelines should reflect a proper and realistic regulatory accounting treatment of connection charges. [92]	The AER agrees with Energex, that in the circumstance described, it is inappropriate for any difference to be added to the RAB. This submission highlighted some issues with the drafting of the 'treatment of augmentation assets' section, which the AER has now re-drafted.
Section 5 - Method of determining charges for standard control services	

91 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 8.

92 Energex, AER draft connection charging guidelines, 17 February 2012, p. 3.

Submission	AER Response
Ausgrid - In limited circumstances, where Ausgrid will not permit a component of the service to be provided contestably for policy reasons (for example, because of impacts on safety, security or reliability of the network), Ausgrid may be required to undertake some components of the construction works. In this small number of circumstances, there may be instances where it may be appropriate to seek a capital contribution from the customer. These however are very few in number and the works typically forms a small component of the overall works funded by the customer (directly to an ASP).[93] We suggest that in addition to a unit rate approach that the DNSPs are allowed to propose an alternative approach to charging for the shared network augmentation which would be published by the DNSP in its connection policy. This is mainly to provide DNSPs operating in markets where the provision of connection services is primarily contestable with an opportunity to develop an approach to cost services that is based on a more accurate reflection of the actual costs.[94]	The AER understands that it is generally the case that for augmentation of large shared network assets, Ausgrid does not permit a component of the service to be provided contestably, for safety reasons. The AER considers that if a component of a service cannot be provided contestably then a classification of either negotiated or unclassified may not be appropriate for that component. As such, that component may need to be classified as either standard control or alternative control. The AER considers that Ausgrid should propose a connection service which relates to these identified works which are not contestable so that the AER can apply a suitable service classification to these services.
ETSA Utilities does not have any concern with the AER's classification of services provided that connection services/works provided for customer convenience (ie works in excess of the most efficient and technically feasible solution from a DNSP's perspective) are fully funded by the customer are not subject to the cost-revenue-test.[95]	The AER has amended its connection charge guideline to make it clear that the cost-revenue-test for standard control services only relates to the least cost technically acceptable solution. Where a customer requests a higher standard, the least cost technically acceptable standard should be subject to the cost-revenue-test and the customer should fully fund any cost in excess of the least cost technically acceptable standard.
Section 5 - Cost Revenue Test formulation	

93 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 8.
94 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 8.
95 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 3. (bottom pg reference)

Submission	AER Response
ETSA Utilities seeks clarification on the following statement: "The AER proposes to apply the cost-revenue-test collectively to all standard control services rather than applying it to each standard control service separately." It is ETSA Utilities' understanding that this statement refers to applying the cost-revenue-test to all the standard connection services provided to a single customer that effects connection of that customer to the distribution system.[96] ETSA Utilities supports that AER's draft decision. However, ETSA Utilities support is based on the provision that the "collective manner" referred to above applies to a single customer.[97]	The AER confirms ETSA's understanding that this statement refers to the application of the cost-revenue-test to all standard connection services provided to a single customer in relation to the connection of that customer to the distribution system. The cost of all standard control connection services provided to the connection applicant will be included in the one cost-revenue-test.
Ergon Energy believes that real estate developers should fully fund all costs associated with making an electricity supply available to the development upfront, including any applicable SCS [standard control service] component of the connection charge. As raised in our earlier submission, this approach means Distribution Use of System payments received from all electricity customers are not used to support developers' costs and profits, but are instead spent on the shared electricity distribution network, benefiting all customers.[98]	Any connection services used by a real estate developer, which are alternative control or negotiated services, will be recovered in accordance with the set form of control and in many circumstances may be recovered upfront. However, the cost of providing standard control services are generally recovered through DUoS charges and so are implicitly recovered over time. Requiring the full cost of standard control services to be paid upfront is generally inconsistent with the standard control service classification and the form of control which is usually applied. The connection charge guideline allows for an additional capital contribution to be made for standard control services in some circumstances. Subject to the clauses requiring pre-payments, the AER's connection charge guideline permits full recovery of this capital contribution prior to connection work commencing.

96 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 3.
97 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 4.
98 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 4.

Submission	AER Response
MEU - The draft decision considers that that there should be no negative connection costs…However, most DNSPs operate on a price cap basis, and they retain the benefits of any negative connection cost… To add to the ability of the network to charge a new connector for deep connection costs and augmentation to relive potential congestion provides the DNSP an ability to profit by not using the allowed capex provided at a reset for augmentation but to levy costs on new connectors and allowing for profiting from unused capex.[99]	The guideline prescribes a method to allocate connection costs to new customers in a fair and reasonable manner. DNSPs are regulated monopolies with respect to the provision of distribution services. Expenditures incurred by a DNSP are, in effect, passed through to customers. The connection charge guideline sets out the principles for the allocation method to be applied to these expenditures. DNSPs' efficient expenditure and profit margin levels (weighted average cost of capital) are set by the AER in its distribution price control determinations every five years.
United Energy accepts the formula as it currently stands.[100]	Noted
SP AusNet accepts the formula as it currently stands, although it has broader concerns about the application of the cost-revenue test to in-sequence development. [101]	Noted

99 MEU, Connection charge guidelines, 16 February 2012, p. 3.
100 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 9.
101 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 8.

Submission	AER Response
SP AusNet and Untied Energy were concerned that the imposition of a cost-revenue test for standard control services may actually be in conflict with Rule 5A.E.1(c)(6). SP AusNet notes that its previously proposed position, which would lead to DNSPs assessing whether their capital program has to be changed to cater for development (i.e., whether the development is out-of-sequence), and only charging where the program has changed, would appear to be a more accurate interpretation of Rule 5A.E.1(c)(6). Supports significant flexibility being retained around the approach of allowing different thresholds in different areas of a network, particularly in if the cost-revenue test is retained. Supports the AER's approach to recovering the cost of tendering out negotiated connections under clause 5A.C.1 of the NER. Agrees with the 5 categories of assets proposed by the AER, although it notes that not all categories of assets will be relevant for all connections, rather, customers should only be charged for the asset classes that they can theoretically use, given their connection characteristics. [102] [103]	The AER considers the cost-revenue-test is consistent with chapter 5A. The AER's reasons are fully explained in section 7 of the explanatory statement.
Section 5.2.1 - Incremental cost - Principles	
Actew - Estimating incremental costs – the guidelines provide no guidance on what the "least cost technically acceptable standard" (used in calculating incremental cost) should be, nor guidance on how to resolve a disagreement over what standard is necessary.[104]	The AER considers that the least cost technically acceptable standard relates to the cheapest connection method, including both material and labour costs, that is consistent with industry practice and meets the requirements of any relevant legislation, guideline or code.
Actew - ActewAGL considers that the draft guidelines clause 5.2.3 should be clarified. The reference to the DNSP using independent contractors should be changed, and the clause re-worded to ensure it fits with the AER's explanation that tenders should be offered when jurisdictional arrangements allow.[105]	The AER has clarified that the requirement to call tenders is subject to jurisdictional arrangements permitting tenders being called.

[102] SP AusNet, Response to AER's draft connection charge guidelines, February 2012, pp. 9-10.
[103] United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 13.
[104] ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 2.
[105] ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 6.

Submission	AER Response
ETSA - It should not be a mandatory requirement for the DNSP to call tenders on behalf of the customer. We consider that that either the DNSP call tenders or the customer can call tenders, as this would satisfy the AER and the NER requirements.[106]	The AER has redrafted this clause. It is not mandatory for a DNSP to call a tender on behalf of connection applicants. However, where permitted by jurisdictional arrangements, a DNSP must inform a connection applicant that the option is available. Either the DNSP or connection applicant can run the tender process and the DNSP can recover its costs of running the process or assisting the connection applicant to run the process.
Endeavour - Any application of the tendering arrangements set out in the Draft Guideline in NSW would be unnecessary, introduce inefficiencies, increase administrative costs for connection customers and would undermine the ASP Scheme, causing a contraction in the market for ASP services. Recommendation; Where connection services are provided in a contestable market, the requirement for a DNSP to facilitate or implement a tender process in shared connection augmentations is to be deleted from the Guideline.[107]	The AER notes that this is only a requirement for standard control services and is unlikely to apply to contestable service, particularly ones that are subject to the NSW ASP scheme.
JEN supports the incremental cost principles and requirements set out in section 5.2 except for subsection 5.2.1 (b) Section 5.2.1 is a repeat of section 1.1.4 of the draft guideline. Please refer to the comments JEN provided in relation to section 1.1.4. Consistent with our earlier comments, JEN proposes section 5.2.1 (b) should be modified as follows: (b) Calculate the charge for each component on the least cost technically acceptable standard necessary for the connection service, unless the connection applicant requests a connection service or part thereof be performed to a higher standard. In which case the connection applicant should contribute the additional cost of providing the service to the standard requested c) Where the connection service involves augmentation to the shared network, in which case the connection applicant should be charged no more for this service	The AER has modified the drafting of these clauses to make its intentions clearer. The AER notes the numbering of these clauses has changed - section 1.1.4 is now 2.1.3, and section 5.2 remains section 5.2. These sections are similar but distinct clauses, section 2.1.3 relates to all connection services regardless of the service classification and also includes the pioneer scheme. Section 5.2 relates specifically to standard control services.

106 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 4.

107 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 5.

Submission	AER Response
MEU - In its development of the Chapter 6A rules, the AEMC clarified achievement of efficiency in networks by ensuring that there would be locational signals so that generators and consumers would connect to the networks where there was adequate spare capacity rather than connecting where new augmentations would be required to accommodate the new connection. The draft decision has determined that wherever a new connection joins the network, the cost of the new connection should include for the replacement of the spare capacity used as a result of the new connection. This means there is no signal to a new connection to join where there is spare capacity. In the absence of a locational signal, the network usage will not be optimized and there will be no improvement in efficiency, and this will be a cost to all other users of the network.[108]	As indicated in the explanatory statement for the draft guideline, spare capacity results largely from the lumpy nature of network augmentation, such as the installation of a new zone substation transformer. The AER understands that spare capacity is also maintained to provide for growth as well as to provide adequate supply reliability. As spare capacity is used up, new augmentation will be required at certain trigger points in order to maintain a suitable level of spare capacity (that is to maintain an appropriate level of network utilisation[109]). As such, using the network's spare capacity has a cost to the network and it is appropriate to charge the customer who utilises this spare capacity. Nevertheless, the AER has attempted to implement locational signals while preventing the distortion of having a single customer bear the entire cost of a network upgrade. A service classification of alternative control or negotiated services can be used to provide locational signals. However, standard control services by default lack locational signals. By implementing a cost revenue test for standard control services the AER has attempted to provide as many locational signals as practical, and by allowing DNSPs to identify areas where the cost of augmentation are higher the AER has increased the power of these locational signals.
MEU - It does not agree with the AER that deep connection costs should be levied on the new connections as this provides the DNSP with an ability to seek double revenue – from the new connector and from the revenue reset process.[110]	The connection charge guideline and Chapter 6 of the NER ensure that DNSPs cannot recover any regulated return on assets paid for by customers or gifted to the DNSPs. As such, the AER does not consider that DNSPs are able to over recover due to the charge for deep connection assets.

108 MEU, Connection charge guidelines, 16 February 2012, p. 3.

109 Darryl Somerville, Steve Blanch, Jack Camp, *Detailed Report of the Independent Panel for Electricity Distribution and Service Delivery for the 21st Century – July 2004*, p. 8.

110 MEU, Connection charge guidelines, 16 February 2012, p. 4.

Submission	AER Response
CEC – The CEC expects that enhancing access by connection applicants to contestable services is an effective way to meet the national electricity objective. Clause 5.2.3 requires distribution network service providers to notify applicants of access to contestable processes in accordance with this understanding. However, we believe that this will be better facilitated by extending the scope of this notification process to ensure that the distribution network service provider provides sufficient information to permit applicants to easily access contestable processes. [111]	CEC's comment has been noted. Maintaining contestable arrangements has been a consideration of the AER in drafting the connection charge guideline. Additionally, contestable arrangements are contemplated in chapter 5A and the operation of Chapter 5A should help address CEC's concerns. For example, clause 5A.B.2(b) requires that the terms and conditions of a basic model standing offer must cover: *(3) the qualifications required for carrying out the work involved in providing a contestable service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and* *(4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a contestable service or the retail customer (or both);*
Section 5.2.2 - Incremental cost – Customer Specific	
United Energy and SP AusNet accept the removal of operating and maintenance costs from the cost-revenue test. [112]	Noted
Section 5.2.3 - Incremental Cost Shared Network	
ETSA Under our current charging regime we are permitted to charge a different unit rate where the customer is more than 15 kms (as the crow flies) from a zone substation. We consider that the Guideline provisions permit that arrangement to continue. [113]	The connection charge guideline allows DNSPs to charge a different rate in different parts of the network, if the cost of augmentation differs significantly. Additionally the unit rates in each area of the network must be approved by the AER in its distribution determination. If ETSA can demonstrate that customers more than 15 km from a zone substation have significantly different augmentation costs, then the AER would approve a different rate in these regions.

111 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 4.
112 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 8.
113 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 4.

Submission	AER Response
ETSA Utilities considers that where a DNSP adjusts the customer's incremental costs to take account of the useful life of the network component, compared to the period for which the customer will be using the network, then there must be a corresponding reduction in the years of revenue included in the incremental revenue calculation used in the cost-revenue-test. [114]	The AER considers that the cost component should be commensurate with the revenue component. If an asset is reusable after the connection life of a customer (generally shared network assets) then the customer should only cover the cost for the proportion of time that they use the asset, accordingly the revenue received by the DNSP would only be during the period when they are using the asset. As the AER considers that an assumed connection period of 30 years is appropriate for residential customers, and generally an assumed connection period of 15 years is appropriate for business customers, the AER considers that connection applicants should not be charged the full cost of any connection assets which have useful lives longer than this (so long as the asset can be reused without undue cost).
Ausgrid - Clause 2.1.5(c) refers to "The network classification". It is not clear what this criteria is intended to refer to because networks are not classified as such under the National Electricity Rules. Is this to provide for distinctions to be made between CBD, urban and rural networks?[115]	The AER confirms that this is intended to provide for a distinction between CBD, urban and rural networks. A footnote has been added to reflect this.
Aurora supports the setting of a fixed demand threshold and the AER's approach in this regard. Aurora agrees the DNSP should be responsible for setting the unit rate. Aurora suggests that a general per unit rate charge could be developed based on the existing methodology in South Australia. Aurora agrees with the AER's revised position as reflected in the Draft Guideline to charge for shared network augmentation based on the customer's total peak demand if that customer is above the relevant shared network augmentation charge threshold.[116]	Noted
ETSA Utilities agrees with the AER draft decision in that customers who are above the augmentation threshold should pay the augmentation charge on the basis of their full demand not just their demand above the threshold.[117]	Noted

114 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 4.
115 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 7.
116 Aurora, Draft connection charge guideline, 16 February 2012, p. 5.
117 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 5.

Submission	AER Response
ENERGEX - Under the proposed framework, the DNSP is to charge customers for shared network augmentation even where assets may not have been constructed. This has the potential to create a number of interrelated accounting, financial systems and process issues for the DNSP which will introduce significant complexity and cost, and possible compliance issues around accounting standards. Energex has identified two potential accounting treatments for the above threshold shared augmentation charges which may mitigate some of these concerns. Both would involve no adjustments to either asset base (regulatory or contributed). [118] The first option involves applying the current regulatory accounting treatment applicable to ENERGEX. Above-threshold charges would be forecast in aggregate as part of the regulatory proposal and then actual charges would be offset from revenue each year via an overs and unders process. An alternate option, where above-threshold charges recovered each year could be offset against the next regulatory period's shared network augmentation forecast, may avoid having to forecast above-threshold charges, which would be extremely difficult particularly for the first regulatory period for which the new Guidelines apply. This would be: • Consistent with a view that these above-threshold charges are paid as a contribution for future augmentation requirements; and • More administratively simple for all stakeholders [119]	The AER considers that the exact accounting treatment for shared augmentation charges will be determined in the distribution determination.
United Energy and **SP AusNet** – Assuming the retention of the AER's current approach to charging for shared network costs via the application of a cost-revenue test, United Energy accepts the AER's proposed position outlined in the Draft Decision, in particular the proposal *'for customers to pay shared network augmentation on all of their demand if that customer is above the relevant shared network augmentation charge threshold'* and the need to, in adopting different thresholds, *'consider the ability for each region to cope with additional demand'*. [120]	Noted

[118] Energex, AER draft connection charging guidelines, 17 February 2012, p. 3.

[119] Energex, AER draft connection charging guidelines, 17 February 2012, p. 3.

[120] United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 15.

Submission	AER Response
Aurora agrees the DNSP should be responsible for setting the unit rate. Aurora suggests that a general per unit rate charge could be developed based on the existing methodology in South Australia. Aurora agrees with the AER's revised position as reflected in the Draft Guideline to charge for shared network augmentation based on the customer's total peak demand if that customer is above the relevant shared network augmentation charge threshold. Aurora notes, however, that the protection of residential customers from a requirement to pay upstream augmentation costs, which was originally a foundation principle of the NECF, is no longer supported by the Draft Guideline. [121]	Noted. The AER has included a clause and a note to the guideline that ensures the intention of chapter 5A is retained. The clause states that the threshold(s) should generally exclude augmentation (insofar as it involves more than an extension) charges for retail customers. The AER considers that the threshold should be set so that at least residential customers in an urban area would not be required to contribute towards the cost of an augmentation (insofar as it involves more than an extension)
Section 5.3 - Incremental Revenue	
JEN supports the principles and requirements set out in Section 5.3.[122]	Noted
ETSA - The AER stated "When a customer is not required to explicitly pay for shared network augmentation (and shared network augmentation is a standard control service), then only the DUoS charges attributable to extension and premises connection assets costs will be included in the cost-revenue-test." ETSA Utilities seeks clarification on the AER's position (detailed above) on what portion of the revenue should be included in the cost-revenue-test where a customer funds an extension to the network to effect their connection. Based on the AER's draft position the customer would be entitled to the full DUoS component of their revenue associated with that class of extension asset. [see submission for example]. [123]	If a customer is beneath the augmentation charge threshold, the DUoS should be used excluding the DUoS attributable to augmentation and that attributable to O&M. It does not appear to the AER that either of the options presented by ETSA accord with the guideline. ETSA should determine an average amount of DUoS that is attributable to augmentation (perhaps for a given tariff class) and then remove this amount. Aurora discusses an additional method, for which the AER has provided comments below. To prevent cross-subsidies a customer merely needs to pay at least the incremental cost.[124] ETSA's method would charge new customers more than the AER's method, even though under both methods a new customer would pay at least its incremental cost of connecting. The AER's approach with the cost-revenue-test only requires an upfront capital contribution to the minimum extent (notwithstanding that negative capital contributions will not be made) necessary to prevent existing customers from subsidising new customer connections. Accordingly the AER consider that all revenue, which is attributable to the connection services being provided is offset against those services.

121 Aurora, Draft connection charge guideline, 16 February 2012, p. 5.

122 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 4.

123 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 5.

124 This approach was informed by the work of Gerald Faulhaber's regarding the theory of cross subsidies. Cross-Subsidization: *Pricing in Public Enterprises, Gerald R. Faulhaber*, The American Economic Review, Vol. 65, No.5 (Dec., 1975), 966-977.

Submission	AER Response
Aurora understands that the AER's formula takes into account when a small customer or micro-embedded generator is not required to explicitly pay for a shared network augmentation (and where related to a standard control service) then only the DuOS charges attributable to extension and premises connection asset costs will be included in the cost revenue test. Aurora requests further information to demonstrate how this calculation will apply.[125]	The AER considers that DNSPs are generally better placed to make assumptions in this regard and so will need to propose a method of disaggregating the DUoS charges in their policies.
Aurora notes that the tariff includes both components associated with operations and maintenance costs, which has been recognised by the AER, and shared network costs, which may not have been. In consequence, the tariff applicable to the connecting customer would need to be reduced by factors commensurate with the proportions of each component. Alternatively, the revenue stream from the building block approach under part C of chapter 6 of the National Electricity Rules can be applied using the value of the extension and premises connection assets in place of the RAB, with the annual revenue stream. The annual revenue stream from the incremental assets so calculated must then be treated to arrive at the DUoS charge relevant to the customer. Aurora contends that this latter approach is more transparent and less prone to error than back-solving using existing tariffs. [126]	The AER considers Aurora has proposed two approaches which would adequately remove shared network augmentation DUoS and O&M DUoS from the cost-revenue-test when it is required. Either the tariff could be reduced or the revenue stream from the building block approach could be applied using the value of extensions and premise connection assets.
Ergon Energy does not support the proposal to adjust the incremental revenue calculation by removing the operating and maintenance (O&M) costs… Ergon Energy prefers including the O&M cost in the incremental cost calculation. While this would be administratively burdensome and require system development, it is more appropriate than adjusting the incremental revenue calculation. Consequently, Ergon Energy considers that the Guidelines should allow DNSPs to choose which approach to adopt.[127]	The AER has noted Ergon's submission and has amended its connection charge guideline to allow for either method to be adopted. The AER's connection charge guideline requires that O&M costs either be included or not in both the incremental costs and incremental revenues.

125 Aurora, Draft connection charge guideline, 16 February 2012, p 3.
126 Aurora, Draft connection charge guideline, 16 February 2012.
127 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p 3.

Submission	AER Response
SP AusNet and United Energy– questioned whether only the variable component of the DuOS should be included in the test. Notes that the inclusion of the fixed charge in the test may mean that if a customer's cost-revenue test is at a level where the NPV is positive… but that NPV is below the NPV of the stream of revenue derived from the fixed charge itself, then the existing customer base may receive no benefit at all from connecting that customer in that circumstance. Agrees that for customers below the threshold, the shared network augmentation costs must be removed from DuOS, as these customers do not explicitly pay for future shared network augmentations. However, SP AusNet considers that to truly match revenues and costs, it should be the contribution of forecast shared network costs to DuOS that is removed, not the contribution to DuOS of sunk investments in the shared network. [128] [129]	It is up to each DNSP to structure its tariffs and so while the fixed component of DUoS may be calculated to recover the historical investment in the shared network, this is not an important consideration for the AER in this context. The rational for the cost revenue test is to ensure that a new connecting customer contributes at least the incremental cost that it imposes on the network. Accordingly, the AER's guideline does not require new connecting customers to pay an explicit contribution towards sunk investment costs. The AER notes that this approach may not result in a benefit to existing customers when a new customer joins, however, the purpose of the cost-revenue-test is to ensure that there is no detriment to existing customers when a new customer joins.
Section 5.3 - Appropriate time period	
SP AusNet – supports the: connection lives proposed by the AER;	Noted
United Energy supports the connection lives proposed by the AER and moreover, the flexibility that is assigned to the application of the 15 year life. [130]	Noted
Section 5.3 - Discount Rate	
CP/PC - The Consultation Paper states that the real pre-tax WACC (as per each DNSP's Final Determination) is the appropriate discount rate for calculating the NPV of future revenue stream. The Businesses request that the AER reflect this in its Draft Customer Connection Guideline.[131]	The AER has adjusted the wording of this clause to clarify the relevant WACC is the WACC found in each DNSP's distribution Determination.
United Energy supports the use of the pre-tax WACC, and the application of a flat real price path after the end of the relevant distribution determination. [132]	Noted

128 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, pp. 10-11.
129 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 14.
130 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 14.
131 CitiPower and Powercor, Draft connection charges guideline, 14 February 2012, p. 1.
132 United Energy, Response to AER's draft connection charge guidelines, February 2012, p 14.

Submission	AER Response
SP AusNet – supports the use of the pre-tax WACC; and the application of a flat real price path after the end of the relevant distribution determination. [133]	Noted
Section 5.3 - Price path	
ETSA Utilities supports the AER's adoption of a flat real price path however we consider that the flat real price path should apply from the time of the connection offer, not at the end of the relevant determination. This will simplify the process significantly and will either be a marginal advantage (ie where price path is less than CPI) or marginal dis-advantage (where price path is greater than CPI) to the customer. [134]	The AER considers that it should not be overly onerous to apply the X factors from the distribution determination to escalate prices for the remainder of the current regulatory control period. While the difference may be marginal, the AER considers it appropriate to apply the best known information regarding a customer's future tariff when calculating the incremental revenue. In some instances the price change between the first and last years of a regulatory control period can be substantial, and this should be taken into account.
ENERGEX seeks confirmation that the price path to be assumed subsequent to the expiry of the prevailing determination essentially applies an X-factor of zero. If this is the case, for the avoidance of doubt, ENERGEX requests that section 5.3.5 (c) of the Guidelines be removed. [135]	The AER confirms that a real X factor of zero should be applied. The AER has considered the drafting of this clause and has amended it to make its intentions clear.
Section 5.4 - Estimating customers' consumption and demand	
Actew – the proposed mechanism whereby DNSPs provide the forecast of consumption and demand for each connection applicant and then provide refunds to the applicant after 3 years if the actual values are less than the forecasts involves an unreasonable shifting of risk to the DNSP and network users as well as a significant administrative burden, as new systems and processes must be established and implemented.[136]	The AER notes that this mechanism is only required where the customer and DNSP cannot agree on estimates of consumption and demand. In these cases the mechanism ensures a fair outcome. Also, the AER considers that this process is appropriate because it allows the DNSP the discretion to determine the appropriate estimates of consumption and demand. This process ensures there is an incentive on DNSPs to work with customers to arrive at a realistic estimate and provides an alternative to the dispute resolution process to deal with any issues which arise.
JEN supports the principles and requirements set out in Section 5.4. Note: There is a typographical error in 5.4.5.[137]	The AER has corrected the typographical error mentioned in JEN'S submission. The clause is now 'Distribution network service *providers* and real estate developers'.

133 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 11.
134 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 5.
135 Energex, AER draft connection charging guidelines, 17 February 2012, p 4.
136 ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p 2.
137 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p 4.

Submission	AER Response
ETSA Utilities supports the AER's decision on estimating customer's consumption and demand [138]	Noted
United Energy and SP AusNet support the AER's Draft Decision in relation to this issue, in particular, they support the AER's position that DNSP's may make provisional demand and consumption estimate, with, after three years, actual and forecast demand or consumption being reconciled. In saying the above, for the purposes of clarity, United Energy notes that this reconciliation process should only occur where agreement has been unable to be reached – it should not occur in all cases. [139]	The reconciliation only occurs if the customer and DNSP cannot agree on an estimate of consumption and demand, which will not occur in all cases. A note has been added to this clause to make this clear.
Section 5.5 - Pre calculated capital contributions	
JEN supports the principles and requirements set out in Section 5.5.[140]	Noted
ETSA Utilities supports the AER view[141]	Noted
ENERGEX believes that pre-calculation opportunities should be extended to connection services classified as alternative control services. ENERGEX notes that the AER currently allows the charging of a pre-calculated fixed fee for some alternative control services, in recognition that certain alternative control services can be 'standardised' and charged as a pre-determined fee. [142]	The pre-calculation clauses refer to the pre-calculation of capital contributions for standard control services arising from the cost-revenue-test. The connection charge guideline does not specifically dictate the amount, or how to charge for, alternative control services (which will be determined in the distribution determination). The AER notes that a schedule of fixed prices is one of multiple control mechanisms allowed under clause 6.2.5 of the NER, for charging for alternative control services.

138 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p 5.
139 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 15.
140 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p 4.
141 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p 6.
142 Energex, AER draft connection charging guidelines, 17 February 2012, pp 3-4.

Submission	AER Response
United Energy– Whilst United Energy broadly supports the AER's proposed approach, it reiterates the position made in its original submission that even if the cost of connection is considered to be similar a 'customer class', this does not take into account the varying levels of revenue that might be expected to be received from a particular customer, given its location/characteristics, relative to the United Energy's average revenue per customer. Therefore, United Energy considers that the AER should, for the purposes of clarity, also explicitly reference 'average/expected usage characteristics', as well as the 'class of customer' and the 'same connection characteristics'. 143	The AER has now included 'usage characteristics' in the guideline for pre-calculated charges. The AER considers that the varying level of usage and hence the revenue received by the DNSP can be taken into account when determining the classes of customer to which basic or standard connection offers apply.
Section 6 - Refund of connection charge (pioneer scheme)	
JEN believes the AER has incorrectly extended the principle of refunding the connection charges contemplated in section 5.A.E.1 (d). Section 5.A.E.1 (d) specifically relates to a retail customer – not a real estate developer.144	The AER considers that the term retail customer includes real estate developers. Accordingly the AER considers that real estate developers are entitled to access a pioneer scheme like all other retail customers. The term retail customer is defined in chapter 5A as: *retail customer includes a non-registered embedded generator and a micro embedded generator.* The definition does not exclude real estate developers and is quite broad. Chapter 5A contains a number of express provisions which offer some assistance in determining whether a real estate developer can be a retail customer. Significantly, clause 5A.E.1 itself provides: A retail customer (other than a non-registered embedded generator or a real estate developer)... This expressly contemplates that in this provision a real estate developer is just one type of retail customer. Similarly, clause 5A.E.3(c)(4) provides this guidance. The purpose and structure of chapter 5A appears to contemplate that the term 'retail customer' is a broad term that encompasses real estate developers.

143 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 16.

144 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 5

Submission	AER Response
Aurora disagrees with this approach. Since developers recover upfront costs through the subsequent sale of vacant lots, there is no reason for subsequent customers to pay a second contribution.[145]	With respect to real estate developers, the pioneer scheme aims to address the first mover disadvantage, whereby the first developer to connect to a network may have to fund the network extension, which would then be available free of charge to subsequent developers. It appears to the AER that Aurora (and maybe other DNSPs) is under the impression that the real estate developer would be entitled to recover an amount under the pioneer scheme from customers who purchase blocks from the developer. This is not the way the AER considers that a pioneer scheme applies to real estate developers. Rather, if a DNSP builds additional capacity into the network to accommodate other developments in the region (and the first developer is required to fund this additional capacity), then the future development sites should refund the first developer (or the owners of the blocks of land) for this connection.
ETSA Utilities supports the AER's draft decision on refunds of connection charges for extension assets but consider that the regime should not apply to real estate developers as the real estate developer has recovered all their costs from the customers who purchased part of the real estate development.[146]	As above.
ActewAGL Distribution accepts that the new chapter 5A of the National Electricity Rules requires the AER to include in its guideline a "pioneer scheme". However, introducing the proposed scheme in the ACT where, for efficiency considerations, no such scheme currently exists, will involve significant practical issues and implementation costs. The AER is adding to the burden of implementing such a scheme by applying an unreasonably low threshold of $500.[147]	The AER notes that there will be some administrative burden resulting from this scheme, however, similar schemes have previously been introduced in multiple jurisdictions. Also, the scheme is required under the Rules. However, the AER has decided that a threshold of $1000 would be more appropriate to balance these administrative costs against customer interest.

145 Aurora, Draft connection charge guideline, 16 February 2012, p 7.
146 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 7.
147 ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 2.

Submission	AER Response
Ausgrid - greater clarity is needed regarding the definitions of premises connection assets and extensions. This will assist in administering such as scheme.[148]	The AER has reworked these definitions to provide additional clarity. The AER now refers to these connection services as follows: • Augmentation of premises connection assets at the retail customer's connection point —The AER considers this would include any connection assets located on the retail customers premises. • Extension —an augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider. • Augmentation (insofar as it involves more than an extension) —Any augmentation which is not an extension. • Incidental services—including administration, design, certification and inspection.
Ausgrid - We consider that the current owner of the premises with the connection assets should be the party that obtains the rebate rather than the original customer. The reason for this is that that cost of the connection forms part of the cost of the property incurred by the original owner. The original owner will seek a return on these costs incurred and the costs will effectively be factored into the purchase price paid for by the subsequent owner of the premises. For this reason we consider it appropriate and equitable for any payments that may be made, to be provided to the current owner. [149]	The AER has considered Ausgrid's submission and will allow DNSPs to formulate the pioneer scheme to provide a refund to either the customer who connected or the current owner of the premises. By clarifying in advance which party will benefit from the rebate (whether it be the initial connecting customer or the current owner of the premises), the rebate (or lack thereof) to either party can be factored into the purchase price of the property.
Aurora suggests the rebate should be provided to the current 'occupier' since the property may change hands and the 'value' of the premise's connection to the electricity network would be capitalised into the re-sale value of the property. [150]	As above.

148 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p 9.
149 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 9.
150 Aurora, Draft connection charge guideline, 16 February 2012, p. 7.

Submission	AER Response
JEN supports the principles and requirements set out in section 6. On page 58, the Explanatory Statement notes: The AER considers that for most retail customers, DNSPs should only be able to charge the lowest cost technically efficient extension to the extent needed to serve those customers. However, if a retail customer requests an extension to a standard higher than the lowest cost technically efficient solution, DNSPs will be able to charge retail customers the difference, which will not be subject to a pioneer scheme. Only the value of the lowest cost technically efficient solution will be subject to a pioneer scheme. This principle has not been reflected in this section, which sets out the pioneer scheme for extension assets. [151]	Noted. The AER has sought to ensure that the guideline reflects this principle..
Aurora supported this approach in its previous submission to the Consultation Paper, on reflection, Aurora considers there should not be any account for depreciation under the pioneer scheme. If the depreciated value of the assets is used, Aurora considers the original cost of assets should be escalated to not disadvantage the original customer. [152]	The AER accepts that using the depreciated value of the connection assets in calculating any refund under the pioneer scheme may be regarded as disadvantageous to the original customer, as it reduces the amount of any rebate available under the pioneer scheme. However a pioneer scheme may distort investment decisions towards the end of the 7 year period. Particularly connection applicants may choose to connect after the 7 year period has expired and thus avoid paying a charge under a pioneer scheme. This would also be disadvantageous to the original customer, the AER's depreciation method seeks to reduce the incentive to delay investment until after the 7 year period has expired, while not unduly reducing the amount of a refund available to the pioneer customer.
EWOV recommends an amendment to the Guideline to allow for all customers contributing to a pioneer scheme to be entitled to reimbursement, whether original or subsequent.[153]	The AER agrees with EWOV's submission. The drafting of chapter 5A does not limit rebates under this scheme to only the original customer. This clause has been redrafted to make this clearer. Protection is still afforded to DNSPs for the administrative cost of applying the pioneer scheme to subsequent customers by the 7 year time limit imposed by chapter 5A and the threshold beneath which the scheme will not apply.
CitiPower and Powercor - The proposed pioneer scheme should not be applied to developers due to the administrative complexity and cost that this would introduce.[154]	See AER response to JEN submission. The AER considers that real estate developers are retail customers under chapter 5A and are entitled to the pioneer scheme in the same manner as other retail customers.

151 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 4.
152 Aurora, Draft connection charge guideline, 16 February 2012, p. 7.
153 EWOV, AER's draft connection charge guidelines, 16 February 2012, p. 2.
154 CitiPower and Powercor, Draft connection charges guideline, 14 February 2012 p. 1.

Submission	AER Response
CitiPower and Powercor - The proposed pioneer scheme threshold of $500 should be increased to at least $1,000 and should be indexed for CPI. This will assist in minimising undue administrative costs. [155]	The AER has adopted a higher threshold to reduce the administrative burden of the scheme, and the AER has allowed for the threshold to be indexed by CPI.
MEU -Above a certain threshold, the "first mover" for a new consumer connection is required to pay all of the net costs of a new connection. For a limited time, any additional consumer connection to this new asset pays a share of the cost, but on a level that reduces over time. The "first mover" takes all the risk and may get some compensation as others used the assets paid for by the first mover. The AER has then arbitrarily decided that after a set period (15 years for a business and 30 years for a residential consumer) all rights are removed and the assets are deemed to be owned by the DNSP. There are no firm rights of access included in the payment for the connection.[156]	The time limit for the application of a pioneer scheme is imposed by clause 5A.E.1(d)(1) of the NER and cannot be varied by the AER.. The assumed connection period (15 years for a business and 30 years for a residential consumer) is a separate issue, which relates to how incremental revenue is estimated. The AER considers that these assumed connection periods are typically long enough to cover the usage of the first mover. Once connected, all load customers are entitled to their contractual capacity allocation under their respective connection contract.
SP AusNet and United Energy do not accept the application of a pioneer scheme to real estate developers, as it does not consider this a fundamental requirement of the Rule (Rule 5A.E.1(d) requires a scheme for 'retail customers'). SP AusNet and United Energy support the non-application of a Pioneer Scheme to the component of an extension that is greater than the lowest cost technically efficient solution, although it notes that this increases the administrative costs and complexity of the scheme overall. [157]	See response to Jemena submission above. The AER considers that real estate developers fall under the definition of a retail customer and therefore are entitled to access the pioneer scheme. The AER recognises that real estate developers are a sub-group of retail customers. Accordingly the AER considers that real estate developers should be treated in the same manner as other retail customers unless chapter 5A specifically states otherwise or it is otherwise justifiable on policy grounds and within power for the AER to treat them differently.
United Energy notes that the adoption of a more complex Pioneer Scheme relative to what is currently adopted by United Energy is likely to lead to higher administrative costs. United Energy supports the non-application of a Pioneer Scheme to the component of an extension that is greater than the lowest cost technically efficient solution, although it notes that this increases the administrative costs and complexity of the scheme overall.[158]	Noted.
Section 7 - Embedded Generators	

[155] CitiPower and Powercor, Draft connection charges guideline, 14 February 2012, p.1

[156] MEU, Connection charge guidelines, 16 February 2012, p. 2.

[157] SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 19.

[158] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 9.

Submission	AER Response
Ausgrid - it needs to be clarified that the charging approach proposed by the AER is relevant only where the augmentation service is classified as a standard control service. Ausgrid supports the requirements of 7.1.2 that require the capital contributions for non-registered embedded generators that are also load customers to be calculated on both the generation and load components of the connection service separately. However, 7.1.2(a) states that non-registered embedded generators will pay a connection charge on the cost of connecting either its generation or load capacity, whichever amount is greater. This drafting appears to contradict the requirement that generators should pay the costs associated with both components of the connection service. Further, in a contestable environment the connection applicant would procure and fund both elements.	The AER agrees that embedded generators should pay the costs associated with both the load and generation components of the connection service. The AER has redrafted these sections to make its position clear.
Ausgrid - As with load connections, connection works for generator connections is contestable except for limited circumstances where Ausgrid will not permit a component of the service to be provided contestably for policy reasons (for example, because of impacts on safety, security or reliability of the network). For similar reasons as outlined in Section 10 of this submission, a unit cost approach for the component of connection works performed by DNSPs for generator connections is highly unlikely to bear any relation to the actual cost. As with the approach for load connections, we propose that DNSPs are allowed to propose an alternative approach to charging for the connection services works and for this to be published in the DNSPs connection policy. This is mainly to provide DNSPs operating in markets where the provision of connection services is primarily contestable, with an opportunity to develop an approach to cost services that is based on a more accurate reflection of the actual costs.[159]	The AER considers this can be dealt with by applying an appropriate service classification to these services.
JEN supports the principles that are set out in section 7**.**[160]	Noted
ETSA Utilities supports the AER's draft decision.[161]	Noted

[159] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 9.
[160] JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 4.
[161] ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 7.

Submission	AER Response
Ergon Energy is supportive of the AER's proposal that non-registered embedded generators (EGs) should fund the cost of removing specific network constraints, unless there is a demonstrable net benefit to other networks users…However, we are concerned that DNSPs may be restricted from charging this under clause 6.1.4 of the Rules. Ergon Energy queries whether the AER has considered this clause in relation to the Guidelines and Explanatory Statement. If so, we seek confirmation from the AER that this clause does not prevent DNSPs from charging non-registered EGs the cost of removing specific network constraints. If this is not the case, the AER may need to propose a Rule change to support its Guidelines.[162]	The AER considers that clause 6.1.4 of the NER prohibits charging for the export of electricity but does not prevent charging for connection to the network. If the removal of a network constraint is a prerequisite for a connection to the network, then the DNSP is not precluded from charging an EG for its removal.
ENERGEX notes that clause 6.1.4 of the National Electricity Rules (Rules) provides that a DNSP must not charge Distribution Use of System charges for the export of electricity generated by the user into the distribution network. This prohibition does not apply for the provision of connection services. ENERGEX believes that the Guidelines and Explanatory Statement should indicate whether the AER has considered this clause of the Rules and confirm that it does not preclude the embedded generation charging proposal set out in the Guidelines. [163]	As above.
MEU - The draft connection guideline requires embedded generators to pay deep connection costs, yet large generators connecting to the transmission networks pay only shallow connection costs. The AER has determined that there will be no congestion and that embedded generators will have to pay deep connection costs to ensure that there is no congestion. The AER draft decision discriminates between a generator connecting to the distribution network and one connecting to the transmission network.[164]	The AER proposes to treat embedded generators the same way as large generators connecting to the transmission network, with respect to access to the shared network. Generally generators only pay shallow connection costs. However, the TNSP would only provide connection to the shared network if there was a net benefit to other network users. If an embedded generator does not pay for network augmentation that is not required by other network users, the other users will be required to pay for such augmentation. This may represent a cross-subsidisation from existing users to the embedded generator. However, connecting generation capacity to the network provides benefits to the other users, and accordingly if a DNSP considers there is a net benefit, it may perform the required augmentation as part of its normal network management regime. Alternatively an embedded generator may pay to remove specific network constraints, but this does not entitle them to firm rights to export electricity.

[162] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 3, 4.

[163] Energex, AER draft connection charging guidelines, 17 February 2012, p. 1.

[164] MEU, Connection charge guidelines, 16 February 2012, p. 2.

Submission	AER Response
MEU - in the case of an embedded generator, it is required to pay deep connection costs but it has no rights of firm access into the network. Should there be congestion, the embedded generator can be required to cease generating, even though it has paid for relieving congestion through its deep connection cost. The AER draft decision removes the rights of access that should come with payment for a connection.[165]	Under the NER, the shared network is shared by all users and no individual has a defined entitlement to the shared network.
CEC – Industry experience gained since February 2010 has identified a number of barriers to the introduction of non-registered embedded generation in the National Electricity Market. The CEC has significant concerns that lessons learned about these barriers were not captured in the development of Chapter 5A, and subsequently are not captured in the AER's Draft Guidelines. [166]	With respect to barriers to the introduction of embedded generation, the AER is bound by legislative requirements and, in particular, the principles set out in Chapter 5A. Removing barriers to embedded generation is not specified in Chapter 5A and so is not directly addressed in the AER's connection charge guideline. However, The AER has allowed DNSPs to not levy a charge for augmentation (insofar as it involves more than an extension) required to connect a non-registered embedded generator if there is a demonstrable net benefit to other network users.
CEC - As introduced in the AER's Consultation Paper to the Draft Guidelines a distinction has previously been made by the AER between deep and shallow network augmentation whereby a deep augmentation is one to the shared network. We believe that a more appropriate definition for the connection of a non-registered embedded generation is that used by the Essential Services Commission of Victoria Guideline 15 for the connection of embedded generation [167] "shallow augmentation in respect of embedded generation services, means the installation of connection assets and any augmentation of the distribution system up to and including the first transformation in the distribution system in respect of the embedded generator", and a "deep augmentation in respect of embedded generation services, means any augmentation of the distribution system other than shallow augmentation in respect of the embedded generation services".	The AER has redrafted this section to use the terminology contained in Chapter 5A to ensure consistency with legislative requirements.

165 MEU, Connection charge guidelines, 16 February 2012, p. 2.
166 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 1.
167 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 3.

Submission	AER Response
CEC - At present there are significant barriers to the development of non-registered embedded generation in the NEM. Significant opportunities are also present for such generators to contribute to the management of peak demand and energy efficiency in CBD and other areas. We believe that including costs of augmentation of the wider distribution network into the works for connections will only enhance these barriers. The AER should be aware of this risk when finalising the Guideline. [168]	With respect to any barriers to non-registered embedded generators, the AER is bound by the legislative requirements of Chapter 5A and does not have the power to address this in its connection charge guideline.
CEC – Whilst we recognise that non-registered embedded generation can impose network requirements which differ to those of load, we question the intentions of this clause. Firstly, the clause does not distinguish between deep and shallow augmentation works, nor is there a requirement for the distribution network service provider to fully disclose the extent of connection works, as discussed above. [169] The CEC is surprised at the AER's attempt to transfer the charging approach used at the transmission level for market participant generators to non-registered embedded generation at the distribution level. [170]	Addressed above.
SP AusNet and United Energy accept the AER's position. [171]	Noted
Section 8 - Real estate developers	

168 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 3.
169 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 4.
170 Clean Energy Council, Connection charge guidelines, 17 February 2012, p. 5.
171 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 15.

Submission	AER Response
Ausgrid - envisages that there may be situations in high growth areas where it would be prudent to build spare capacity in the connection assets built and funded by the real estate developer. However, rather than entering into a pioneer scheme, a more efficient approach would be for the DNSP to fund this spare capacity as part of its capital expenditure program. A pioneer scheme is intended to provide the original applicant with an equitable contribution from other users. It helps to alleviate the problems associated with disadvantages of being the first mover. We consider that it is not appropriate for a DNSP whose primary services are managing and planning the network to enter into a pioneer scheme where there is a forecast need for investment. For this reason, Ausgrid proposes that in situations where it would be prudent to build spare capacity in the connection assets built and funded by the real estate developer, that the payment by the real estate developer should be based on a capacity utilisation of the development. This would be included in the DNSPs connection policy.[172]	The AER considers that Ausgrid's proposal to fund additional capacity where there is a forecast need for investment may be an appropriate manner to deal with this situation. However, the AER considers that the real estate developers connecting in this high growth area should still be charged an amount reflective of their usage of the required network assets. However, Clause 5A.E.1(c)(5) also allows for DNSPs to charge real estate developers an additional amount to provide efficiently for future load growth. If a DNSP chooses to adopt this approach, then the AER considers that a pioneer scheme is appropriate.
Aurora - notes that developers offer no load and, therefore, provide no incremental revenue to compensate the incremental costs of installing the infrastructure. In consequence, Aurora considers that building infrastructure to accommodate developers constitutes a pure asset construction task, and contends that developers should be charged the full cost of installing necessary infrastructure to support the development.[173]	The AER notes that the developer does not in its self provide incremental revenue, however it is reasonable to assume that the real estate developers' developments will provide incremental revenue to the DNSP once it has been occupied. As such it is not equitable (or competitively neutral) to charge developers as if there is no revenue.
Ergon Energy frequently sees situations where a real estate developer requests a network connection which requires us to augment our distribution network. However, load does not connect to our network for 12 months or more…It is not appropriate to apply the cost-revenue-test in these circumstances as it does not send appropriate signals to the real estate developer. The current jurisdictional arrangements in Queensland address this issue by requiring developers to fully fund all costs associated with the works they require. [174]	The AER considers that it is still appropriate to apply a cost-revenue-test. If no load is to connect for an extended period of time, or the usage is expected to ramp up over time as dwellings are occupied, then DNSPs should take this into account when estimating the expected incremental revenue.
SP AusNet agrees with all of the points made by the AER. [175]	Noted

172 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 10.
173 Aurora, Draft connection charge guideline, 16 February 2012, p. 5.
174 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 5.
175 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 15.

Submission	AER Response
United Energy agrees with all of the points made by the AER, however, it notes that for the purposes of clarity, it interprets the AER's position as being that United Energy can include, as part of its Alternative Control Service fee (if classified this way), the cost of upsizing extension assets or premise connection assets to service growth beyond that specifically associated with that development. [176]	Clause 5A.E.1(c)(5) allows for DNSPs to charge real estate developers an additional amount to provide efficiently for future load growth. If a DNSP chooses to adopt this approach, then the AER considers that a pioneer scheme is appropriate.
Section 9 - Prepayments	
JEN supports the principles that are set out in section 9**.** [177]	Noted
ETSA - For small connections where the capital contribution is below a defined threshold (eg $1,000), DNSPs should be allowed to require full payment upfront prior to work commencing if works are to be completed within 6 months. The administrative costs associated with requiring an upfront portion and a portion prior to energisation would material increase the capital contribution required from the customer in comparison to a full payment upfront. [178]	The AER notes ETSA's submission and agrees a threshold would be appropriate. The AER considers that the intention of the threshold is to reach a balance between a DNSPs administrative costs and the burden on from making upfront payments prior to the service being delivered. The AER considers a threshold of $5,000 would be appropriate.
ETSA - For large connections permitting a fixed amount of the contribution prior to work commencing and the rest prior to energisation instead of calculating a specific payment schedule for a customer's connection (eg SA current employs a regime of 50% upfront and 50% prior to energisation). [179]	The AER considers that the amount that a DNSP can require as a prepayment should be tied to the sunk cost that a DNSP will incur at or around the time the connection offer is accepted, rather than an arbitrary amount expressed as a percentage of the connection costs..

176 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 20.
177 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 6.
178 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.
179 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.

Submission	AER Response
Ausgrid - understands that Section 9 (Prepayments) of the draft connection charge guidelines is drafted to enable prepayment of connection charges however the payment of these charges appears to be linked to the acceptance of the connection offer. Costs can be incurred by DNSPs to undertake detailed design work (including design work for shared network augmentation) before a connection applicant has obtained financial and/or development application approval for their project. These costs need to be recovered by a DNSP regardless of whether the project proceeds to a point where a connection offer is actually accepted. This is particularly true in NSW where the design and construction of services is contestable and the customer separately contracts with, and pays, an ASP for these services. As drafted, Section 9 of the draft guidelines does not apply to the recovery of those costs incurred by the DNSP. We wish to confirm that the recovery of the costs associated with these support services provided by DNSPs provided prior to acceptance of the connection offer can be recovered from the connection applicant through the connection charge, regardless of the classification of the services determined by the AER. i.e. whether the service is classified as standard control or alternative control.[180]	The AER considers that DNSPs should be able to recover any costs incurred prior to the connection offer being accepted. However, the AER considers that payment of connection charges is conditional upon the acceptance of the connection offer. Accordingly, there is some risk to DNSPs of not recovering these costs if they are included in the connection charge. If DNSPs consider this risk to be material, then they should seek to have these services classified separately from connection services and recover them separately from the connection offer . However, if a DNSP considers it appropriate to include these costs in the connection offer then the costs would be recoverable through the connection charge.
Ergon Energy does not support the introduction of limits on the maximum amount of a prepayment that a DNSP can charge as this unfairly places the risk on the DNSP instead of the customer. We note that the AER has previously acknowledged that as a result of its classification of large customer connections as ACS, we may provide for the option of upfront as well as over time payments by customers.7 The Guidelines should allow the DNSP to charge upfront unless otherwise requested by the customer and agreed upon with the DNSP (and the connection service can be easily segmented into distinct stages of construction).[181]	The connection charge guideline allows a DNSP to require prepayment for any sunk costs, (including administration and design costs as well as the purchase of any specialised equipment). Hence, DNSPs are assured that their costs are recovered even if the connection applicant cancels the connection.
Ergon Energy disagrees with the AER's proposal to require prepayment of sunk costs if the connection will not occur for 3 months after the connection offer is accepted. Ergon Energy considers that a more appropriate timeframe is 6 months. We also note that the AER uses the term "for small connections" in its Explanatory Statement in reference to this restriction. This is not reflected in the Guidelines. We also seek clarity on the term "small connections". [182]	The AER maintains that 3 months is a sufficient time period for this clause. The AER has amended the guideline and no longer uses the term 'small connections'.

[180] Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 10.
[181] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 4.
[182] Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 5.

Submission	AER Response
ENERGEX – On ENERGEX's reading, there are inconsistencies between the Guidelines and Explanatory Statement regarding the scope for pre-payments [183] The Explanatory Statement and Final Guidelines should be completely consistent to avoid confusion and disputes. In addition, ENERGEX believes that a 3 month restriction is an unnecessary constraint on the prepayment policy. [184]	The AER notes Energex's submission. The AER considers that the three month restriction is necessary to ensure that connection applicants do not prepay the full connection amount significantly in advance of the connection service being provided.
United Energy and SP AusNet accepts the AER's position in relation to prepayment of connection charges. [185]	Noted
Aurora considers that no limits should be set on prepayments. Prepayments may be required to progress design and other matters as part of the application process. Construction should not commence until the full customer contribution has been received. [186]	The AER agrees that construction (or each stage of construction) need not start until the full customer contribution (or payment for the particular stage) has been received. Further the AER's approach does not limit prepayments which are required to process design, or other matters, the cost of which are borne by the DNSPs. However, where the construction cost will not be incurred for a substantial period of time and are of a reasonable size, the AER does not consider that DNSPs should receive payment for this service upfront.
Section 10 - Security fee scheme	
JEN - Section 10.1.3 (g) does not make sense and we believe there is word 'not' missing in the statement.[187]	The AER has amended clause 10.1.1(g) of the draft guideline to reflect the AER's intention that a connection applicant should *not* be rebated more than the security fee plus interest.
ETSA Utilities supports the AER's draft decision on security fee schemes.[188]	Noted

183 Energex, AER draft connection charging guidelines, 17 February 2012, p. 1.
184 Energex, AER draft connection charging guidelines, 17 February 2012, p. 1.
185 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 17.
186 Aurora, Draft connection charge guideline, 16 February 2012, p. 6.
187 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 6.
188 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 7.

Submission	AER Response
Ergon -The AER requires a rebate to be paid at least once each calendar year. Ergon Energy believes that in circumstances where no load has connected to the network then a rebate should not be required to be paid.[189] [see Ergon submission on real estate developers for example when no load is connected hence no IR]	Under the guideline, a payment must be allowed each year. A payment would not need to be made if no rebate is due in accordance with the DNSP's scheme, as long as a mechanism is in place to ensure a payment would be made if it was due—for example a rebate would be due if the incremental revenue of the year equalled the estimated incremental revenue (other than when the incremental revenue is estimated to be zero).
ENERGEX seeks confirmation that the connection applicant should *not* be rebated a security fee amount greater than the initial security fee deposit plus interest over the security fee period. The Draft Guideline states that the applicant should ne rebated a greater amount, which may simply be a typographical error. [190]	The AER has amended clause 10.1.1(g) of the draft guideline to reflect the AER's intention that a connection applicant should *not* be rebated more than the security fee plus interest.
SP AusNet supports the AER's proposed approach to allow for Security Fees to be levied upon customers in certain circumstances. [191]	Noted
United Energy supports the AER's proposed approach to allow for Security Fees to be levied upon customers in certain circumstances, and generally has no substantive issue with the principles highlighted by the AER. [192]	Noted
Aurora notes that the application of the cost-revenue-test to developers may result in numerous requests for security fees. [193]	Noted
Section 11 - Treatment of Augmentation assets	
Ausgrid - The AER connection charge guidelines state that the value of any assets gifted to a DNSP by a customer, will not be included in the DNSP's RAB. Ausgrid contends that gifted assets need to be included in the regulatory asset base at zero value. The reasons are outlined below.[194]	The AER agrees with Ausgrid. The AER has modified the drafting of this clause.

189 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p.
190 Energex, AER draft connection charging guidelines, 17 February 2012, p. 2.
191 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 15.
192 United Energy, Response to AER's draft connection charge guidelines, February 2012, p. 19.
193 Aurora, Draft connection charge guideline, 16 February 2012, p. 6.
194 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 10.

Submission	AER Response
JEN supports the principles that are set out in section 11**.**[195]	Noted
ETSA Utilities supports the AER's draft decision in that all assets constructed (ie either by the DNSP or a third party) to connect a customer are included in the RAB[196]	Noted
Endeavour - The Guideline is contrary to both the NEL and current practice, whereby gifted assets are included by the DNSP in the RAB, albeit that they have a value of zero (consistent with the customer capital contribution being netted off the RAB). The reason for the inclusion of gifted assets in the RAB, before the customer capital contribution is netted off, is for the asset to be recognised for maintenance and operating expense purposes. Inclusion of the assets gifted to a DNSP by a connection applicant in the RAB would also reflect that when they are ultimately replaced by the DNSP, they would be included in the RAB at their full value. Recommendation; The Guideline be amended to include assets gifted to a DNSP by a connection applicant in the Regulated Asset Base (RAB).[197]	The AER has modified the drafting of this clause.
Ergon Energy considers that the Guidelines / Explanatory Statement should not prescribe a specific treatment. Rather, this issue should be addressed during the Regulatory Proposal and Distribution Determination process for each DNSP. Ergon Energy's current regulatory accounting treatment allows for capital contribution charges to be forecast in aggregate as part of the Regulatory Proposal, with actual charges then being offset from revenues each year via an unders and overs process. This process avoids double-counting.[198]	The AER agrees with Ergon. The AER has modified the drafting of this clause.

195 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 6.
196 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.
197 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 5, 6.
198 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 3.

Submission	AER Response
Ergon - We also note that the proposed clause 11.1.1 of the Guidelines requires the net cost of any connection service to be included by the DNSP in its RAB. The net cost is the gross capital cost to the DNSP of performing a connection service minus the customer connection charge. As Alternative Control Services (ACS) are to be charged in accordance with the relevant form of control approved by the AER, the actual cost of providing the connection service may be greater than the allowed fee for that service. Under the Guidelines this difference would be added to the RAB. This may result in a single asset being split across ACS and Standard Control Service (SCS) classifications. Once again, Ergon Energy considers that this issue should be addressed during the Regulatory Proposal and Distribution Determination process for each DNSP and should not be prescribed in the Guidelines. [199]	The AER has modified the drafting of this clause.
SP AusNet and United Energy accept the intent of this, although it queries the AER's specific reference to augmentation assets, given that some DNSPs may also seek to have other services (e.g., premises connection and extension) classified as Standard Control services. [200]	The AER is required to describe the treatment of augmentation assets. Augmentation is an all encompassing term for all assets used in a connection and as such this applies to all assets. The AER accepts that this was not clear in its draft guideline.
Maintaining a contestable framework	
Ausgrid - if the AER decides to classify any design and construction works, then there is scope for the connection charge guidelines to impact on what works the customer is required to fund. In turn, any such classification decision will impact on the work available for accredited service providers. So, to the extent the classification and charging approach results in a DNSP funding part or all of the works currently funded by a customer, that work is effectively withdrawn from contestability and funded by a DNSP's broader customer base. It will therefore be critical to ensure the AER adopts the correct classification for services.[201]	The AER considers this is a consideration for service classification in NSW and should be dealt with in the distribution determination.

199 Ergon Energy, Submission on the draft connection charge guidelines, 25 February 2012, p. 3.
200 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 14.
201 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 1.

Submission	AER Response
ETSA Utilities understands the AER position on the contestable framework however we currently operate a contestable framework in SA where the contestable portion of the connection works is subject to the cost-revenue-test. Where the customer elects to tender the contestable portion of the connections works and selects a third party to perform the work, ETSA Utilities will perform compliance checks of the contestable work, once completed, certify compliance and vest to ETSA Utilities. We then provide a portion of the rebate (ie less our costs) to the customer. This has resulted in a robust contestable market especially in the land development segment. We consider that the AER's Guideline should allow this type of regime to apply to a DNSP's Connection Policy, including provisions on how a customer's connection works are classified.[202]	The AER envisages that contestable services would generally be classified as alternative control, negotiated or unregulated services. The AER considers these service classifications will result in cost reflective pricing and as such it is not necessary to apply a cost-revenue-test to these services. However, the AER considers that tendering for standard control services can provide comfort to customers that they are receiving a competitive price and has sought to allow for this (where permitted by jurisdictional arrangements) in its connection charge guideline. The AER considers that if a customer has a tender run by either itself or the DNSP, then these costs should be included in the cost-revenue-test.
Endeavour - notes that service classifications and forms of control are decided in the distribution price control determination process. However, a decision of the AER to include shared augmentations (funded by both a DNSP and a connecting customer) provided through a contestable framework as unclassified connection services for the purposes of the Guideline, whilst recognising the value of the shared augmentation net of capital contributions paid by the connecting customer would facilitate ongoing jurisdictional requirements for contestability and promote the long term interests of customers.[203]	The AER notes Endeavour's submission and will consider the appropriate service classification in the NSW revenue determination process.
Endeavour - Where shared augmentations are provided through contestable works, they can clearly be demonstrated to meet the purpose of the Guidelines. Moreover, the long term interests of customers are served by the efficient investment in, and use of, shared augmentations provided through a contestable framework. This is acknowledged in the current Capital Contributions Determination which specifies that the connecting customer's connection capacity, other loads and the expected growth in other loads be taken into account in determining the economic optimum size of connection works. [204]	The AER agrees that where connection services are provided by a functioning contestable market that the purposes of the guideline are achieved.

202 ETSA Utilities, Submission – AER's draft connection charging guideline, 17 February 2012, p. 6.
203 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 4.
204 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 4.

Submission	AER Response
Endeavour - The AER has stated that it considers contestable frameworks can be maintained, or promoted, by applying an appropriate service classification in each jurisdiction. Classifying a shared network augmentation provided by the contestability framework in NSW as unclassified would maintain competitive neutrality whilst allowing the customer to only pay for its share of the augmentation triggered, based on its usage of the required assets. [205]	The AER notes Endeavours submission and will consider the appropriate service classification in the NSW revenue determination process.
SP Ausnet and United Energy agree with the AER that 'contestable markets can be maintained, or promoted, by adopting a suitable service classification and form of control'. As stated previously, SP Ausnet's preliminary position is that it considers that there is sufficient competitive tension in the provision of certain connection services to warrant the removal of the regulation of those services. [206]	Noted
Essential Energy strongly believes that the current contestability framework in NSW needs to be protected and maintained. However, Essential Energy is not confident that the guidelines in their current form will achieve this objective.[207]	The AER considers that NSW's contestability arrangements can be maintained by applying an appropriate service classification.
Miscellaneous	
Actew - Relocations and removals can be an integral part of a connection service, and for this reason they are covered by the current ACT Electricity Network Capital Contribution Code 2007. The AER's draft connection guidelines make no reference to relocations and removals. ActewAGL Distribution seeks confirmation on whether relocations and removals associated with connection services are to remain covered by jurisdictional arrangements.[208]	The AER notes that a connection service includes a connection alteration. A connection alteration is further defined as 'an alteration to an existing connection including an addition, upgrade, extension, expansion, augmentation or any other kind of alteration.' Accordingly, the AER considers that anything which fits within this definition would be covered by Chapter 5A and the connection charge guideline.
Ausgrid - The definitions in the guidelines should be carefully considered to ensure that they clearly separate the different components of the connection service and can be aligned with the Rules (National Electricity Rules).[209]	The AER has refined the manner in which it refers to connection services and considers that it is consistent with the NER.

205 Endeavour Energy, Draft connection charge guidelines, 17 February 2012, p. 4.
206 SP AusNet, Response to AER's draft connection charge guidelines, February 2012, p. 13.
207 Essential Energy, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 2.
208 ActewAGL Distribution, response to the AER's draft guidelines, 17 February 2012, p. 8.
209 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 2.

Submission	AER Response
Ausgrid - The AER does not refer to the components of the connection service as services. Rather the AER uses a mix of terms including "assets' and "costs" to describe what we consider are more correctly described as services. We request that the AER refer to the components of the connection services as services and not assets. [210]	The AER has refined the manner in which it refers to connection services and considers that it is consistent with the NER.
Ausgrid - The AER considers that a typical connection can be separated into at least four separate connection service including premises connection services. However the definition of premises connection assets in Chapter 5A of the Rules are defined as the components of a distribution system used to provide connection services. This seems to suggest that premises connection assets are an overarching concept – not a component.[211]	The AER agrees that premises connection assets appears to be an overarching concept. The AER now refers to connection services in the following manner. • Augmentation of premises connection assets at the retail customer's connection point—The AER considers this would include any connection assets located on the retail customers premises. • Extension—an augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider. • Augmentation (insofar as it involves more than an extension)—Any augmentation which is not an extension. • Incidental services—including administration, design, certification and inspection.
JEN considers the definitions are consistent with chapter 5A and sufficiently clear.[212]	Noted
EWOV – Section G.3 of Chapter 5A describes the AER's ability to determine whether a relevant dispute could be effectively resolved by an alternative means, i.e. the jurisdictional Ombudsman. It must be noted that EWOV is restricted by the terms of its Charter about the types of complaints that falls into its jurisdiction.[213]	The AER will consult with the Ombudsmen regarding the disputes that can be handled through the Ombudsman scheme.

210 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 4.
211 Ausgrid, Draft connection charge guidelines for electricity retail customers, 17 February 2012, p. 4.
212 JEN, Draft connection charge guideline for electricity retail customers, 17 February 2012, p. 6.
213 EWOV, AER's draft connection charge guidelines, 16 February 2012, p. 2.

Submission	AER Response
EWON - In our previous submission we raised a query as to the role of the jurisdictional energy ombudsmen in resolving disputes in relation to connection charges… We note advice provided by the AER that the AER intends holding further discussions with the jurisdictional energy ombudsmen once it is clear when each jurisdiction is adopting 5A and what transitional arrangements may be in place prior to the full implementation. We welcome this approach[.][214]	The AER will consult with the Ombudsmen regarding the disputes that can be handled through the Ombudsman scheme.
MEU - A "first mover" which pays for the shallow connection should be provided reimbursement for its contribution over the life of the assets it funds, and it should not be exposed to the loss of its firm rights to the share of the usage of the assets its funds.[215]	Extensions assets are covered by pioneer schemes and the first mover may be entitled to rebates for up to seven years after they fund the construction of an asset. The issue of firm rights to access is outside the scope of the AER's connection charge guideline and cannot be addressed here.
ENERGEX – There are benefits to both ENERGEX and the AER if the connection charging policy is approved well before the Regulatory Proposal expenditure forecasts are to be finalised and submitted. To the extent possible, ENERGEX would prefer this approval process be incorporated in the framework and approach stage of the regulatory reset. [216]	The AER considers that its power to approve the connection policy is explicitly tied to the distribution determination.
Aurora is satisfied with each of the definitions contained in the Draft Guideline. [217]	Noted
Aurora – The intention of NECF is to provide protection to small customers. Clause 5 of the National Energy Retail Law includes all residential customers in the definition of "small customer". The Draft Guideline do not reflect this intention of the NECF, potentially requiring a high-usage residential customer to contribute towards upstream augmentation. [218]	The AER considers that most residential customers would be covered by basic connection offers. As such they should only pay for dedicated assets. Residential customers with demand above the threshold will be required to pay for shared network augmentation costs in accordance with chapter 5A. However, high usage customers will provide a DNSP with correspondingly high incremental revenue and this would mitigate some of the augmentation costs.

214 EWON, Submission to the AER's connection charge guideline, 14 February 2012, p. 1.
215 MEU, Connection charge guidelines, 16 February 2012, p. 4.
216 Energex, AER draft connection charging guidelines, 17 February 2012, p. 4.
217 Aurora, Draft connection charge guideline, 16 February 2012, p. 7.
218 Aurora, Draft connection charge guideline, 16 February 2012, p. 7.