



# **DRAFT DECISION**

## **Ausgrid**

### **Distribution Determination**

#### **2019 to 2024**

## **Attachment 17**

### **Connection Policy**

November 2018

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## Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Ausgrid for the 2019–2024 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

### Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

Attachment 12 – Classification of services

Attachment 13 – Control mechanisms

Attachment 14 – Pass through events

Attachment 15 – Alternative control services

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## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ACS	alternative control services
ASP	accredited service provider
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CCP 10	Consumer Challenge Panel, sub-panel 10
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance, a component of the previous DMIS
DMIAM	demand management innovation allowance mechanism
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for Electricity Distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market

Shortened form	Extended form
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

## 17 Connection policy

We are required to approve a connection policy prepared by a distributor under the National Electricity Rules (NER).<sup>1</sup>

A connection policy sets out the nature of connection services offered by a distributor, when connection charges may be payable by retail customers and how those charges are calculated. A connection policy:<sup>2</sup>

- must be consistent with:
  - the connection charge principles set out in chapter 5A of the NER
  - the connection policy requirements set out in part DA of chapter 6 of the NER
  - our connection charge guidelines published under chapter 5A<sup>3</sup>, and
- must detail:
  - the categories of persons that may be required to pay a connection charge and the circumstances in which such a requirement may be imposed
  - the aspects of a connection service for which a connection charge may be made
  - the basis on which connection charges are determined
  - the manner in which connection charges are to be paid (or equivalent consideration is to be given)
  - a threshold (based on capacity or any other measure identified in the connection charge guidelines) below which a retail customer (not being non-registered embedded generator or a real estate developer) will not be liable for a connection charge for an augmentation other than an extension.

### ***The AER's connection charge guidelines for electricity retail customers***

A connection policy must be consistent with our connection charge guidelines for electricity retail customers to ensure that connection charges:

- are reasonable and take into account the efficient costs of providing the connection services arising from the new connection or connection alteration
- provide, without undue administrative cost, a user-pays signal to reflect the efficient costs of providing the connection services

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<sup>1</sup> NER, Part DA of chapter 6.

<sup>2</sup> NER, cl. 6.7A.1(b).

<sup>3</sup> AER, *Connection charge guideline for electricity retail customers, Under chapter 5A of the National Electricity Rules Version 1.0*, June 2012.

- limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customers
- are competitively neutral, if the connection services are contestable.

## 17.1 Draft decision

We do not approve Ausgrid's connection policy because it does not contain all the necessary information as required by the NER. We have made modifications to the policy so that it is compliant with the NER. These are discussed below.

## 17.2 Ausgrid's proposal

Ausgrid's connection policy provides an outline of its connection services, when connection charges may be payable by its retail customers and how those charges are calculated.<sup>4</sup>

## 17.3 Stakeholder submissions

Power Design (an accredited service provider or ASP) expressed several concerns about Ausgrid's proposed customer connection policy. Power Design's main concern is that Ausgrid could foreclose competition from ASPs through its connection policy. Power Design submitted that:<sup>5</sup>

- Ausgrid's description of its services and corresponding fees would allow Ausgrid to:
  - earn income for no service
  - increase fees
  - charge engineering rates for administrative services
  - not be bound by target timeframes for delivering service
  - impose unclear boundaries in service type (for example, whether a project is classified as simple, standard or complex, which in turn determines Ausgrid's fees)
- There is no Ausgrid work required, or not much time required, in private certification. Ausgrid could make standards higher than necessary to safeguard its network, closing out competition.
- Ausgrid's contestability project coordinators do not consistently apply Ausgrid's design checking regime. Various small requirements reflect Ausgrid's inefficiencies but ASPs bear the costs.

The City of Sydney expressed its concerns about delays in electricity connections in the Ausgrid network and the resulting effect on costs:<sup>6</sup>

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<sup>4</sup> Ausgrid, *Regulatory Proposal 1 July 2019 to 30 June 2024, Attachment 5.17 Connection Policy*, 30 April 2018.

<sup>5</sup> Power Design & Energy Projects Pty Ltd, *Australian Energy Regulator 2019-2024 Regulatory Period Submission – Ancillary Network Services*, 8 August 2018, pp.

<sup>6</sup> City of Sydney, *Ausgrid Regulatory Determination 2019-2024*, 8 August 2018, p. 2.



...if businesses are unable to secure new connections to the grid in a timely manner, or if business are unable to upgrade existing connections in a timely manner, the consequences of such bottlenecks may be widespread and costly.

The City is aware of multiple instances of inadequate and untimely responses to connection requests for both public and private projects. The indirect costs of such delays may amount to hundreds of millions of dollars. Further, the relatively low level of distributed renewables in the Ausgrid network (especially the Central Sydney region) makes it all the more important for timely action on connections requests.

Public Interest Advocacy Centre (PIAC) supports Ausgrid's connection policy as a result of Ausgrid's pre-lodgement consumer engagement.<sup>7</sup>

The Urban Development Institute (UDIA)<sup>8</sup> and the Energy Users Association (EUAA)<sup>9</sup> support the underlying principle of 'beneficiary pays' or 'user pays' for capital contributions and customer connections. The UDIA supports Endeavour Energy's approach ('beneficiary pays') and recommends that Ausgrid adopt the same approach.

## 17.4 AER's assessment approach

We examined the proposed connection policy against the requirements of Part DA of chapter 6 as stated above—whether it:

- is consistent with the connection charge principles set out in chapter 5A of the NER, and our connection charge guidelines
- contains all the information for new customers as prescribed by the NER.

In addition, we also examined whether:

- other connection related charges included in the connection policy, such as metering installation charges, are consistent with the service classification of this preliminary determination
- the connection policy contains terms that are not fair and reasonable.

## 17.5 Reasons for draft decision

We have not approved Ausgrid's proposed connection policy because it does not:

- specify the categories of persons that may be required to pay a connection charge
- clarify the different types of connections under chapter 5A of the NER

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<sup>7</sup> Public Interest Advocacy Centre, *Submission in response to the NSW DNSPs 2019-24 regulatory proposals and AER issues paper*, 8 August 2018, p. 2.

<sup>8</sup> Urban Development Institute of Australia, *Re: Ausgrid Energy Determination 2019-24*, 8 August 2018, p. 1.

<sup>9</sup> Energy Users Association of Australia, *NSW Electricity Distribution Determinations: Ausgrid, Endeavour Energy, Essential Energy 2019-2024*, 10 August 2018, p.1.

- specify the conditions under which Ausgrid will require a connection applicant to undertake upstream augmentation works
- explain Ausgrid’s reasons for seeking security fees as a financial guarantee
- contain details of how the pioneer scheme refunds are to be determined.

Following our questions on the above issues, Ausgrid proposed further improvements to the connection policy to provide more clarity to the document.<sup>10</sup> We considered the proposed improvements reasonable and accepted the modified connection policy as the AER approved policy.<sup>11</sup>

Following feedback we have received—particularly from accredited service providers including Power Design—regarding the lack of transparency and potential overcharging on alternative control services to ASPs, we consider it appropriate to introduce requirements around transparency of billing. We clarify this matter in attachment 15 (Alternative Control Services) of this draft decision as follows:<sup>12</sup>

When charging for quoted services, it is required that:

1. Ausgrid must provide itemised invoices to the customer or the service recipient such as an Accredited Service Provider.
2. The charges must be consistent with good industry practice in terms of the resource requirements.

If an ASP considers that Ausgrid’s charge for quoted services for a specific project is unreasonable in terms of the volume of Ausgrid’s quoted work contents, the ASP can contest Ausgrid’s offer. If the ASP and Ausgrid cannot reach a mutually agreeable settlement, the ASP can seek the AER to review Ausgrid’s charges. The AER can review charges for ACS quoted services in terms of their reasonableness.

We acknowledge the concerns of Power Design and the City of Sydney on how Ausgrid may allocate ASP services types and Ausgrid’s timeliness in responding to connection works. However, this is a service level matter under the ASP scheme in New South Wales, rather than a matter to be addressed by Ausgrid’s connection policy. ASPs should seek Ausgrid’s commitment to improve its service level. They can also seek the NSW Department of Planning and Environment—the administrator of the ASP scheme—to review the operation of the scheme.

Regarding the UDIA and EUAA submissions, we support the ‘beneficiary pays’ principle. However, as stated in our draft decision on Endeavour Energy’s connection policy, if a developer’s connection work content would also benefit existing customers, the existing customers should fund the proportion of the cost. However, where the new works will benefit only the specific new customer [the developer] and future new

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<sup>10</sup> Ausgrid, *Response to AER information request IR#044*, 17 September 2018.

<sup>11</sup> Clause 6.12.3(j)(2) provides that we may amend the proposed connection policy to the extent necessary to enable it to be approved in accordance with the Rules.

<sup>12</sup> AER - *Draft decision - Ausgrid - Attachment 15 Alternative control services* - September 2018

customers, existing customers should not subsidise new customers and fund such costs. Rather, the relevant first-mover developer should recover part of its original cost—if future developments use the network extensions funded by the first-mover developer—through the pioneer scheme provision under the connection policy.<sup>13</sup>

## 17.6 AER approved connection policy

We have modified Ausgrid’s proposed connection policy and incorporated the suggested modifications by Ausgrid to reflect the above draft decision on this matter.<sup>14</sup> This revised connection policy is appended to this chapter.

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<sup>13</sup> AER, *Draft Decision, Endeavour Energy Distribution Determination 2019 to 2024, Attachment 17 – Connection Policy*, November 2018, p 17-9

<sup>14</sup> Rule 6.12.3(j)(2) provides that we may amend the proposed connection policy to the extent necessary to enable it to be approved in accordance with the Rules.

# **A AER approved connection policy for Ausgrid**

# Connection Policy – Charging for Customer Connection Services

## (showing amendments under the AER’s draft decision)

**Purpose** This policy is Ausgrid’s Connection Policy prepared in accordance with the National Electricity Rules (the Rules), [the Electricity Supply Act 1995](#) and the AER Connection Charge Guidelines. It outlines the circumstances when a customer is required to pay Ausgrid for connection services and how these connection charges are calculated.

**Applies to** Customers requesting a new connection, or connection alteration under Chapter 5A of the Rules.

**Effective period** This policy applies to the period from 1 July 2019 to 30 June 2024.

**Introduction** In NSW, the majority of work to establish a new, or alter an existing, connection to Ausgrid’s distribution system is performed by Accredited Service Providers (ASPs). Ausgrid determines whether work required to make a new connection or connection alteration is a contestable service according to the AER service classification.

There are some connection services that can only be provided by Ausgrid and for which Ausgrid charges the customer. These services and associated charges are regulated by the Australian Energy Regulator (AER).

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## 1 Key principles and requirements

**1.1 Connection works** [Connection works are the works on or related to the electricity network required to connect a customer's installation to the electricity network, or to alter an existing connection. The works may involve augmenting the network by installing new network infrastructure, or upgrading existing infrastructure. They do not include works within a customer's electrical installation. Connection works may be provided by a customer funded ASP, or by Ausgrid.](#)

**1.2 Connection services funded by the customer**

Connection services funded by the connection customer are:

1. **Contestable services provided by an ASP.** This includes the design and construction of connection assets at the customer's premises and may include augmentation of the distribution system. These services are provided to the customer by ASPs in the contestable marketplace and are known as contestable services.
2. **Ancillary services** that can only be provided by Ausgrid and that are either necessary for the connection or requested by the customer. Connection charges for ancillary services are regulated by the AER and are published on Ausgrid's website.
3. **Customer requirements.** Where a customer requests a higher standard of supply beyond the least cost technically acceptable standard offered by Ausgrid, the customer is required to fund the marginal cost of the additional work Ausgrid incurs.
4. **Pioneer scheme contribution.** Where a new customer uses a network extension that was paid for by another customer within 7 years, the new customer may be required to make a payment towards the cost of the extension assets.
5. **[Providing land for connection assets.](#)** [The customer may be required to locate connection assets on their site and to provide appropriate interests in land in Ausgrid's favour for the connection assets.](#)

**1.3 Types of connection services**

[Ausgrid offers three categories of connection services:](#)

- [Basic services](#) are offered to customers who are under the threshold set in 1.4; or to customers (including those installing micro embedded generation) who require minimal or no augmentation of the network.
- [Standard services](#) are offered for most other connections.
- [Negotiated services](#) are offered to customers who do not qualify for Ausgrid's basic or standard services, or who prefer a negotiated agreement.

[The AER approves model standing offers that cover the terms and conditions under which basic and standard services are provided.](#)

**1.4 Threshold for retail customers**

Ausgrid does not require a retail customer (other than a real estate developer or a non-registered embedded generator) to fund an augmentation of the existing network if they are a low voltage customer with maximum capacity less than:

- 100 amps single phase for a customer in a rural area; or
- 100 amps per phase, three phase, in a non-rural area.

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**1.5 Contestable services** If Ausgrid determines that any of the required work is a contestable service, the customer must engage a suitably accredited and authorised Accredited Service Provider (ASP) to complete this work. The charges for contestable services are unregulated and subject to agreement between by the customer and their selected ASP. The contestable services required for a new connection or connection alteration may include:

- providing and installing connection assets at the customer’s connection point and also within the customer’s electrical installation;
- providing and installing an extension from the connection point to Ausgrid’s existing network boundary; and
- augmenting the existing Ausgrid network (except for retail customers below the threshold in section 1.4 of this policy).

Distribution system assets that are constructed as a contestable service must be gifted to [Alpha Distribution Ministerial Holding Company \(the owner and lessor of the Ausgrid network\)](#) Ausgrid as a contributed asset and form part of the Ausgrid network when they are energised.

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**1.6 Scope of augmentation works for the connection**

Ausgrid specifies the least cost technically acceptable standard for works required to make the new connection or connection alteration in accordance with its network policies, standards and legal obligations to adequately supply the assessed maximum demand.

If a real estate developer applies for a new connection or connection alteration, or the connection services are provided under a negotiated connection contract, Ausgrid’s assessment of the electrical load requirements of customers may include forecast load growth.

[If Ausgrid determines that the supply of electricity required by a customer exceeds that which can be provided by a service line from the street mains, then Ausgrid may require the customer to install transformers, switchgear and other equipment on their premises.](#)

[The customer is only responsible for the cost of network augmentation that is required to enable the connection to be made.](#)

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**1.7 Interests in land**

[The customer is required to provide Ausgrid, free of cost, a place on their premises to accommodate network infrastructure required for their connection; and easements, leases or any other reasonable interests in land required by Ausgrid in order to provide for the connection.](#)

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**1.8 Ausgrid provided augmentation works**

There are certain types of augmentation that are required to provide for a customer connection but that Ausgrid will carry out. [When](#) these works are [not ancillary services to be funded by the customer, they are](#) classified as standard control services and Ausgrid does not charge the customer a connection charge for providing these works. In these circumstances Ausgrid may require the customer to provide a financial guarantee to cover its costs as set out in section 3 of this policy.

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**1.9 Where Ausgrid funds augmentation works**

Ausgrid funds augmentation works associated with a connection in the following circumstances:

- Any augmentation of the shared network required for customers who qualify for basic connection services.
- As set out in section 1.8 of this policy.
- Where Ausgrid asks the customer's ASP to construct network infrastructure additional to that necessary for the connection as set out in 1.6.
- Where Ausgrid uses a network extension that was paid for by another customer within 7 years to supply general network load, Ausgrid will make a payment towards the cost of the extension assets under the pioneer scheme reimbursement scheme set out in section 4.
- Under exceptional circumstances, where Ausgrid has agreed to fund the augmentation works under a negotiated connection agreement with a customer (generally a customer with demand greater than 10MVA). Ausgrid will only agree to fund these works where appropriate revenue security mechanisms are in place (e.g. negotiated tariffs or a financial guarantee) so that the cost of those works will be recovered from that customer and not materially underwritten by the general customer base.

**1.10 Customer requirements**

If a customer requests any alternative or additional augmentation works to the standard Ausgrid construction, and Ausgrid agrees with the request, the customer is required to pay any additional costs incurred by Ausgrid. This charge is payable to Ausgrid and determined as follows:

- labour costs are calculated by multiplying the estimated number of hours to complete the work by the relevant hourly ancillary service rate; and
- all other costs, including material and subcontract costs, are charged at cost.

**1.11 Work outside normal business hours**

If Ausgrid is required, at the customer's request, to perform work outside of normal business hours then Ausgrid will charge its overtime rate for the service.

**1.12 Payment of charges**

Ausgrid will seek payment of ancillary service fees for all connection services it provides. Generally, an upfront payment will be required prior to the service being performed.

Where Ausgrid completes works under section 1.6 of this policy, if the connection works can be logically segmented into distinct stages of construction then a payment schedule that aligns with the construction stages may be negotiated.



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## 2 Maximum capacity

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- 2.1 Definition** The maximum capacity of a connection is the maximum load approved by Ausgrid that a connected customer may draw from the distribution system.
- 
- 2.2 When applying to connect** When an applicant submits a connection application to Ausgrid, they must also submit the expected and planned future maximum demand calculations in accordance with AS/NZS 3000. The maximum demand worksheet must be included with a connection application for standard connection services or negotiated connection services.
- Ausgrid takes into consideration the capacity applied for, but is not obliged to agree to the requested capacity, and may offer a different figure, taking into account, for example, network limitations, load diversification and timing of augmentation works.
- 
- 2.3 Exceeding the maximum capacity** If a premises owner exceeds the maximum capacity for their premises, then they are required, at their expense, to either:
- remediate their demand to within the agreed limit (e.g. by installing a load limiting device at their premises); or
  - enter into a new connection agreement for a greater maximum capacity.
- 
- 2.4 Ausgrid may reduce the maximum capacity** Ausgrid may subsequently reduce the maximum capacity of a connection to a premises if:
- the customer's measured demand (as determined by standards published by us from time to time) has remained less than the agreed maximum capacity for at least the previous two years;
  - Ausgrid requires the unused network capacity to relieve a forecast network constraint; and
  - the premises owner does not have a current negotiated agreement with Ausgrid to reserve this capacity.
- Ausgrid will notify the premises owner in writing if this occurs. The revised maximum capacity will not be less than the demand measured during the previous two years.
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### 3 Financial guarantee for Ausgrid works

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#### 3.1 Ausgrid works

There are certain types of work that can only be done by Ausgrid due to system security, reliability or health and safety obligations, or because the work requires specialised services that cannot be provided by other parties. To decide if work required for a new connection or connection alteration can only be done by Ausgrid, we carry out a risk assessment and make a decision based on our risk management principles.

Where Ausgrid carries out this work [and the work is not ancillary services to be funded by the customer](#):

- it is funded by Ausgrid as a standard control service and the costs are recovered on an ongoing basis via distribution use of system charges; and
- Ausgrid may require the customer to provide a security fee to ensure the costs are adequately recovered from that customer.

[The security fee is required where the Ausgrid funded work is substantial \(nominally \\$1m or more\) and the augmentation is initially only for the customer's benefit. In these circumstances Ausgrid considers there is a material risk that Ausgrid may not receive the estimated incremental revenue from the construction of the augmentation works.](#)

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#### 3.2 Security fee is provided as a financial guarantee

The security fee is provided in the form of a financial guarantee.

The financial guarantee is a binding legal agreement the customer commits to pay Ausgrid a minimum level of network revenue each year to cover the costs of the Ausgrid funded augmentation works. The period of the financial guarantee is between 5 and 10 years as determined by Ausgrid.

The financial guarantee is secured by a bank guarantee or other suitable financial instrument as agreed by Ausgrid. Ausgrid is entitled to draw down on the bank guarantee any shortfall in revenue in accordance with the terms stated in the bank guarantee [deed or other financial instrument](#).

The financial guarantee is established at the same time as the design of the augmentation and prior to the works being initiated.

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#### 3.3 Amount of the security fee

The maximum amount of a security fee will be:

1. the present value of the incremental costs incurred by Ausgrid in undertaking the work; and
  2. (if this amount is smaller) the estimated incremental revenue that Ausgrid assesses as having a high risk of not being recovered,
- and is determined in accordance with the AER Connection Charge Guidelines.
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## 4 Pioneer Reimbursement Scheme

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**4.1 Establishing Pioneer schemes** A customer (the original customer) who has fully funded a network extension is entitled to have some of their costs reimbursed by Ausgrid if new customer(s) connect to that network extension within 7 years of the asset being electrified under Ausgrid's pioneer scheme.

A pioneer scheme only applies to connection applicants connecting to the network extension at a point outside the boundary of the original customer's site. The pioneer scheme commences on the date the extension asset was electrified.

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**4.2 Payment of the refund** Ausgrid may recover the refund amount from the new customer(s) as part of their connection charges.

Ausgrid will pay the refund as soon as practicable after the new customer pays Ausgrid the refunded amount. Ausgrid will pay the refund to either:

- the current owner of the original premises, if the original premises is owned by a single entity; or
  - the original connection customer who funded the extension, if the original premises is owned by multiple entities.
- 

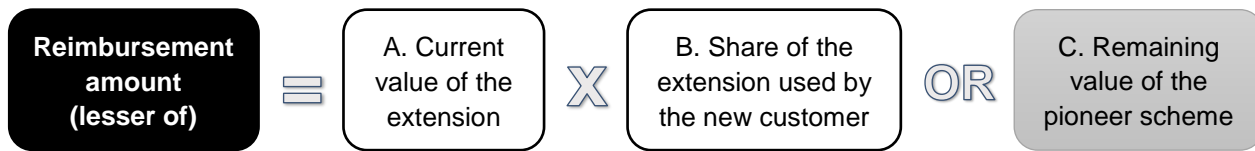
**4.3 How much is the reimbursement amount** The reimbursement amount is the lesser of the calculated refund and the remaining value of the pioneer scheme. The calculated refund is determined based on:

- the current value of the network extension assets, depreciated on a straight line basis over a 20 year period, calculated at the date the new customer accepts the connection offer; and
- the share of the extension used by the new customer(s) relative to other customer(s) already supplied by the extension in terms of maximum capacity, and/or other physical attributes (e.g. length) as applicable.

However, no amount is payable if the total reimbursement payable to all customers already connected is less than \$1000 (\$, real, 2012), adjusted for CPI.

Details of this calculation are provided on the following page.

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$$\text{A. Current value of the extension} = \frac{\text{original value of the extension}}{\text{CPI}(1)} \times \frac{\text{CPI}(2)}{\text{CPI}(1)} \times \text{depreciation factor}$$

where: original value of the extension means Ausgrid’s estimate of the value of the works and only includes the construction works funded by the original customer(s). If the extension assets were constructed to a higher standard or capacity than the least cost technically acceptable standard required by Ausgrid, then only the cost of constructing the extension to the standard required by Ausgrid will be subject to the pioneer scheme.

CPI(1) is the average of the consumer price indices (All Groups, All Capital Cities), published by the Australian Bureau of Statistics, for the previous 4 quarters immediately prior to the date that the original customer’s works are completed.

CPI(2) is the average of the consumer price indices (All Groups, All Capital Cities), published by the Australian Bureau of Statistics, for the previous 4 quarters immediately prior to date of the new customer’s application for customer connection services.

The depreciation factor is determined as follows:  
 Deemed asset life (20 years – asset age) / (Deemed life [20 Years])

$$\text{B. Share of the extension used by a customer} = \frac{\text{customer's use of the extension}}{\text{total utilisation of the extension}}$$

where: customer’s use of the extension is the proportion of the extension used by a particular customer as specified on their application for connection services, generally expressed in:

- for a distribution line, the customer’s maximum capacity in kVA multiplied by the length of the line used by the customer in km; or
- for substations, the customer’s maximum capacity in kVA.

total utilisation of the extension is the total utilisation of the extension by all customer who use or will use the extension, including prospective customers, and usually expressed in:

- for a distribution line, load in kVA multiplied by the length of the line in km
- for substations, load in kVA.

$$\text{C. Remaining value of the pioneer scheme} = \frac{\text{current value of the extension (A)}}{(1 - \text{share of the extension used by the original customer (B)})} \text{ less: } \frac{\text{total refunds paid by new customers to Ausgrid in respect of those works as at date of the new customer's application for customer connection services.}}$$

## 5 Dictionary

Terms marked by an asterisk (\*) have the meaning given in the Rules, the Electricity Supply Act 1995 and the National Electricity Law as amended from time to time. These terms (as at the time of publication of this policy) are reproduced here for convenience of the reader.

<b>ancillary services</b>	Non-routine services provided to the customer by Ausgrid on an as needed basis and for which ancillary service fees are payable.
<b>augmentation*</b>	Work to enlarge the distribution system or to increase its capacity to transmit or distribute electricity
<b>AER</b>	The Australian Energy Regulator
<b>ASP</b>	An Accredited Service Provider, accredited under the Electricity Supply Act 1995 (NSW).
<b>connection*</b>	a physical link between a distribution system and a retail customer's premises to allow the flow of electricity
<b>connection alteration*</b>	an alteration to an existing connection including an addition, upgrade, extension, expansion, augmentation or any other kind of alteration.
<b>connection point</b>	The agreed point of supply established between Ausgrid and its customer.
<b>contestable service</b>	A service that Ausgrid determines must be provided by an ASP
<b>customer</b>	A retail customer, or a real estate developer who requests (or on whose behalf a request is made for) a new connection or connection alteration.
<b>distribution system</b>	Ausgrid's distribution network, together with the associated connection assets.
<b>extension</b>	An augmentation that requires the connection of a power line or facility outside the present boundaries of the distribution network owned, controlled or operated by Ausgrid.
<b>maximum capacity</b>	As defined in section 2 of this policy
<b>micro embedded generator</b>	A retail customer who operates, or proposed to operate, an embedded generating unit for which a micro EG connection is appropriate (being a connection of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters))
<b>network*</b>	The apparatus, equipment, plant and buildings used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail) excluding any connection assets. In relation to Ausgrid, the electricity network owned, operated or controlled by Ausgrid.
<b>negotiated connection services</b>	Connection services provided under Part C of Chapter 5A, of the Rules.
<b>new connection*</b>	A connection established or to be established, in accordance with Chapter 5 of the NER and applicable energy laws, where there is no existing connection.
<b>the Rules</b>	The National Electricity Rules
<b>real estate developer*</b>	A person who carries out real estate development (being the commercial development of land including its development in one or more of the following ways: <ul style="list-style-type: none"> <li>• subdivision;</li> <li>• the construction of commercial or industrial premises (or both); and</li> <li>• the construction of multiple new residential premises.)</li> </ul>
<b>retail customer</b>	A person to whom electricity is sold by a retailer, and supplied in respect of connection points, for the premises of the person, and includes an embedded generator and a micro embedded generator (as those terms are defined in the Rules).
<b>rural area</b>	An area zoned as rural under a local environment plan made under the Environmental Planning and Assessment Act 1979 (NSW).
<b>standard connection services</b>	Connection services for which a model standing offer for standard connection services has been approved by the AER.