



FINAL DECISION
Ausgrid distribution
determination
2015–16 to 2018–19

Attachment 18 – Connection
policy

April 2015

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Note

This attachment forms part of the AER's final decision on Ausgrid's revenue proposal 2015–19. It should be read with other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 - Annual revenue requirement

Attachment 2 - Regulatory asset base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency benefit sharing scheme

Attachment 10 - Capital expenditure sharing scheme

Attachment 11 - Service target performance incentive scheme

Attachment 12 - Demand management incentive scheme

Attachment 13 - Classification of services

Attachment 14 - Control mechanism

Attachment 15 - Pass through events

Attachment 16 - Alternative control services

Attachment 17 - Negotiated services framework and criteria

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Attachment 19 - Pricing methodology

Attachment 20 - Analysis of financial viability

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
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
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

Shortened form	Extended form
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

18 Connection Policy

We are required to make a decision on the connection policy that is to apply to Ausgrid for the 2014-19 regulatory control period. This may be the connection policy prepared by a distributor, some variant of it, or a policy substituted by the AER.¹

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. It also:

- must be consistent with:²
 - 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,³ and
- must specify:⁴
 - 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. The purpose of our guideline is to ensure that connection charges:⁵

¹ NER, cl 6.12.1(21).

² NER, cl. 6.7A.1(b)(1).

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

⁴ NER, cl. 6.7A.1(b)(2).

⁵ NER, cl. 5A.E.3(b); AER, *Connection charge guideline for electricity retail customers, Under chapter 5A of the National Electricity Rules Version 1.0*, June 2012, pg 11.

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

18.1 Final decision

We approve Ausgrid's revised connection policy because it meets the requirements of the NER.

18.2 Ausgrid's revised proposal and further request for changes

Ausgrid acknowledged our draft decision that approved its originally proposed connection policy. In its revised proposal, Ausgrid proposed to make the following amendments to the connection policy:⁶

- an amendment to remove the threshold for large retail customers required to fund upstream augmentation. This is because, based on Ausgrid's operational experience, all connection applicants over 4MVA (megavolt-ampere) would fall into the real estate developer definition. As all real estate developers are required to fund upstream augmentation, this condition is no longer necessary.
- a modification to the description of the metering connection charges to clarify Ausgrid's own charge for metering installation where the meters are provided by Ausgrid.
- a modification to clause 2.6 to give Ausgrid the option of contributing to new customers shared connections works. This situation arises where there is a reasonable likelihood that that asset will be used to supply subsequent new customers within 7 years. The previous clause required the distributor to share such costs. Ausgrid noted that the original Connection Policy suggested that some network extensions that have the potential to be shared by other customers would be classed as shared network augmentation and would be partly funded by Ausgrid. There are potentially some complex scenarios in built up areas where Ausgrid might contribute to the development instead of creating multiple pioneer schemes.

After submitting its revised proposal, Ausgrid further proposed to remove clause 2.6 of the connection policy, because of the following reasons:⁷

⁶ Ausgrid, *Revised Regulatory Proposal and Preliminary Submission 1 July 2014 – 30 June 2019*, 20 January 2015, p. 73.

- The default position for compensating the original customer's cost to augment the network would be under a pioneer scheme. This clause has caused some confusion with customers.
- Ausgrid prefers to have it perfectly clear that the pioneer scheme arrangements will apply.
- In the vast majority of cases, new assets and augmentations are dedicated to a new retail customer or developer. There is no reason for the costs to be shared amongst customers in general.
- The scenario where Ausgrid would contribute is very rare and it is not prevented from contributing to a development if there was significant reason to do so.

Ausgrid provided us its final revised connection policy on 7 April 2015.⁸ This final revised connection policy also included other necessary changes associated with the removal of the 4MVA threshold for large retail customers. It is attached in the Appendix.

18.3 AER's assessment approach

Consistent with our approach in assessing Ausgrid's connection policy in the draft decision, we examined the proposed changes to the connection policy against the requirements of clause 6.7A.1 of the NER 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 that must be specified under clause 6.7A.1(b)(2) of 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 draft determination
- the connection policy contains terms that are not fair and reasonable.

18.4 Reasons for final decision

We approve Ausgrid's further revised connection policy because:

- It is consistent with the connection charge principles in chapter 5A of the NER and our connection charge guidelines for electricity retail customers published under chapter 5A.

⁷ Ausgrid email to AER, 12 March 2015.

⁸ Ausgrid email to AER, 7 April 2015.

- It contains all the necessary information required by Part DA of chapter 6 of the NER.

We also note that:

- All other connection related charges included in the connection policy, such as metering installation charges, are consistent with the service classification of this preliminary decision.
- It does not have terms and conditions that are unfair or unreasonable.

In relation to Ausgrid's specific proposed amendments, we consider:

- The amendment to remove the threshold for large retail customers who are required to fund upstream augmentation is acceptable because:
 - As explained by Ausgrid, all connection applicants over 4MVA would fall into the real estate developer definition and all real estate developers are required to fund upstream augmentation. Hence, this condition is not necessary.
 - Under the original approved connection policy, customers, other than real estate developers, with demand less than 4MVA are not required to fund upstream network augmentation costs. Such an arrangement would result in a substantial cross subsidy by existing customers to new customers. The removal of this condition is consistent with our connection charge guideline and the NER's objective to reduce the amount of cross-subsidy between different classes of customers.⁹
 - The general threshold for requiring retail customers to contribute towards upstream shared network augmentation costs contained in the connection policy is consistent with our connection charge guidelines.
- The modification to the description of the metering connection charges will clarify for new customers that Ausgrid can only charge for metering installation that it does itself.
 - The AER notes that metering services are alternative control services. The cost component for a metering service is included in the connection policy so that new customers are fully informed of the total cost involved in a new connection, not just the augmentation cost under chapter 5A.
- Removing clause 2.6 is consistent with the charging principles set under Chapter 5A of the NER, because:
 - The only cost sharing mechanism prescribed by Chapter 5A of the NER is for subsequent new customers to contribute to the pioneer customer's initial cost.

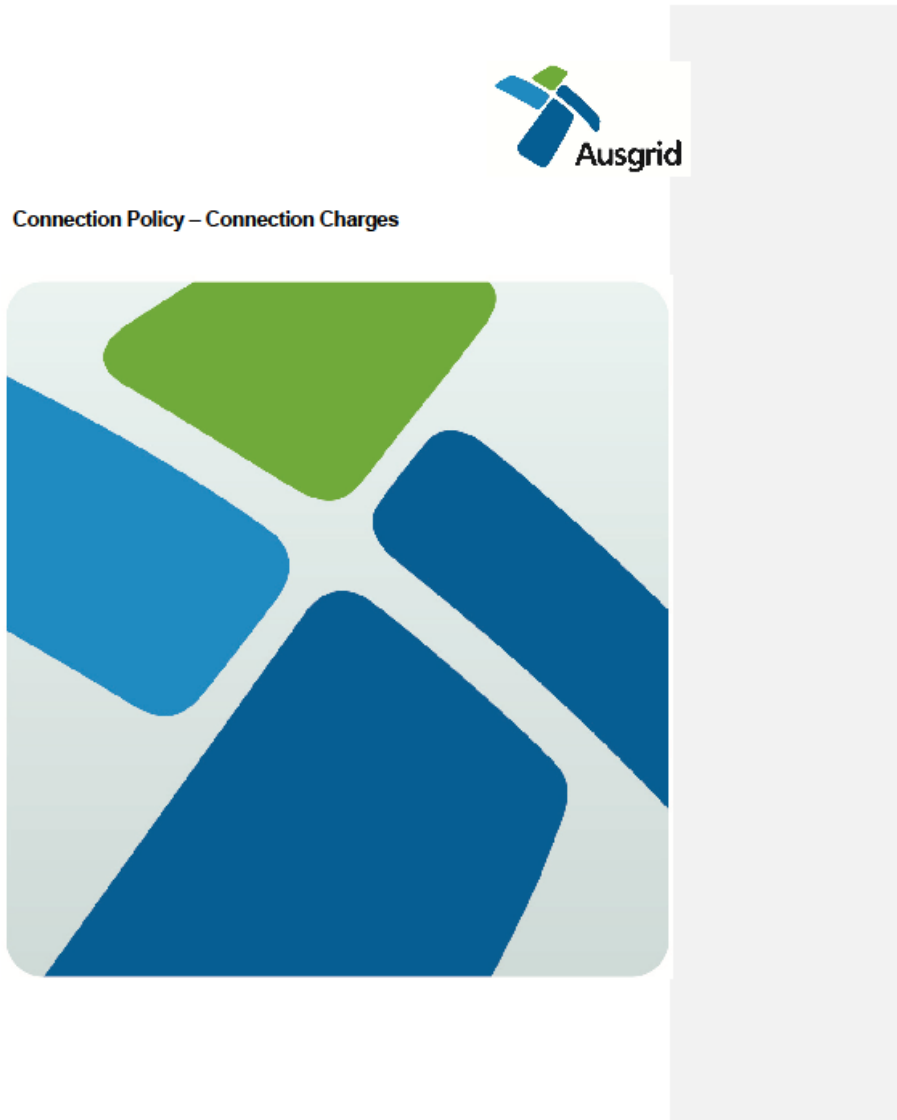
⁹ Rule 5A.E.3(b)(3) states that the purpose of the AER's connection charge guidelines is to ensure that connection charges limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer.

- The original clause required the distributor paying for the cost sharing component contemplated for subsequent new customers after the initial customer had undertaken the necessary network augmentation. This would have resulted in existing customers subsidising the subsequent users—the subsequent users would be connected free of charge. Removal of this upfront subsidy by the distributor will strengthen the connection policy by reducing cross subsidisation and implement reflective costs to all new customers. This is also consistent with our connection charge guideline and the NER's objective to reduce the amount of cross-subsidy.¹⁰

¹⁰ Rule 5A.E.3(b)(3) states that the purpose of the AER's connection charge guidelines is to ensure that connection charges limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer.

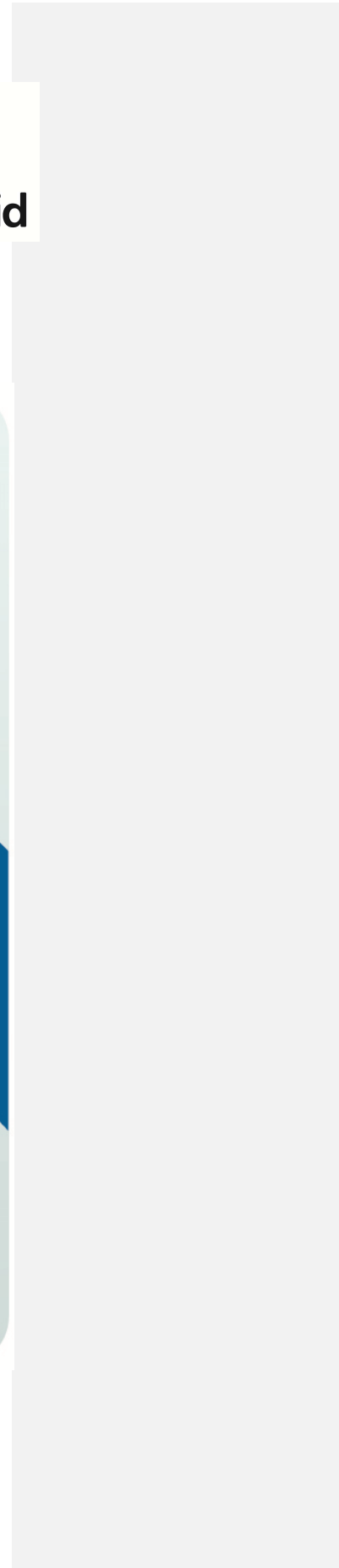
A Ausgrid's final revised connection policy

Click image below to open





Connection Policy – Connection Charges



SCOPE

This publication sets out the connection charges payable by customers for connecting their premises to Ausgrid's distribution network.

WARNING

It is the responsibility of the user of this document to ensure that only the current version is being used.

DOCUMENT AND AMENDMENT HISTORY

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1 Introduction

This document is Ausgrid's Connection Policy.

This connection policy sets out the circumstances in which Ausgrid requires a retail customer or real estate developer to pay the cost of connecting their premises or development to the Ausgrid network. The costs are also known as connection charges for the provision of connection services under chapter 5A of the National Electricity Rules (*NER*).

A connection charge can be a fee payable to Ausgrid for a service, such as an inspection or it could be a financial guarantee where Ausgrid has carried out an *augmentation* to its network.

This policy has been prepared to be consistent with the following regulatory instruments, which regulate the fees and charges that Ausgrid can require a customer to pay:

- The connection charge principles set out in Part E-Connection charges, of chapter 5A of the *NER*,
- Part DA-Connection policies, of chapter 6 of the *NER*,
- The Australian Energy Regulator's (*AER*'s) Connection charge guidelines for electricity retail customers, under chapter 5A of the *NER*, and
- The *AER*'s determination for the 2015-19 regulatory control period in relation to the fees that Ausgrid can charge for Ancillary Services and Metering Services.

1.1 General approach to funding connections

The fees and charges payable by a customer in order to connect to Ausgrid's network fall into two categories:

1. Third party fees and charges which relate to the services provided by Accredited Service Providers (*ASP*) and other third parties in relation to the provision and installation of network infrastructure; and
2. Ausgrid's fees and charges for connection services provided by Ausgrid.

A brief description of these fees and charges is set out below.

Third party fees and charges

The third party fees and charges are not payable to Ausgrid and therefore are not connection charges. They have been included in the connection policy to assist the customer to understand the scope of charges the customer may incur in establishing a connection to Ausgrid's network.

Contestable services provided by Accredited Service Providers

As a general rule, the services required to establish a customer's connection to Ausgrid's network are undertaken by Accredited Service Providers (*ASP*) and are known as contestable services. This means customers must fund the costs of *connection works* (i.e. make capital contributions), which include the following costs associated with establishing a new or altered connection of their installation or development to Ausgrid's network:

- The costs of providing and installing the necessary *premises connection assets* at the customer's connection point or point of supply and also within the customer's electrical installation, and
- The costs of providing and installing a dedicated extension from the connection point up to a defined point of connection on Ausgrid's existing network known as the *linkage point*.

The capital contributions payable by the customer for these contestable services are not specified in this Policy and are payable directly to the *ASP*.

Network Augmentations

Generally Ausgrid carries out and funds augmentation to the shared network. This is work on the shared assets beyond the *linkage point*. Connection applicants will be required to fund augmentation in the following circumstances:

- All real estate developers must fund augmentation work.
- Non registered embedded generators must fund augmentation work.
- Retail customers: If the capacity applied for by the connection applicant exceeds the thresholds set by Ausgrid in Section 3 of this policy, they will be required to make a capital contribution towards the cost of the augmentation of Ausgrid's shared network.

In all cases:

- The capital contribution will be limited to the augmentation required to enable the connection to be made.

- The augmentation work is contestable and undertaken by an ASP so the capital contribution is payable to the ASP, not to Ausgrid.

Other third party fees and charges

In addition to ASP charges, the customer may also incur property tenure costs which relate to the granting and registration of leases and easements and associated plans over Ausgrid infrastructure which is located on the customer's premises. These costs are also not payable to Ausgrid but directly to the relevant third party.

Ausgrid's fees and charges

Ancillary service fees

Ancillary services are services which are non-routine connection services provided to a customer on an "as needs" basis. These services can only be undertaken by Ausgrid. All customers will be required to pay the fees for *ancillary services* associated with their connection. These fees relate to the services that Ausgrid provides during the design and construction (on a contestable basis) of premises connection assets, *extensions* and *augmentation* by ASPs. An example would be inspection of assets built by a Level 1 ASP. These services and fees are explained in detail in section 4.

Metering service fees

Other than metering related Ancillary Services, the only relevant metering services provided by Ausgrid in relation to connection services is the provision of the meter. The customer must fund the cost of the meter which is approved by the AER. See section 5 for further details

Other fees

In some circumstances customers may be required to pay a fixed site inspection fee if a site inspection is required. Customers who receive a negotiated connection offer can be required to pay Ausgrid's reasonable expenses in assessing the customer's connection application and preparing the offer. Ausgrid's approach to determining its reasonable expenses is set out in section 6.

Pioneer scheme payments

Retail customers or *real estate developers* who propose to connect to a part of the network funded by another customer in the previous 7 years (a pioneer scheme) may be required to make a payment to connect to the pioneer scheme. See section 7.

Financial guarantees

In some circumstances, Ausgrid may require a customer to provide Ausgrid with a financial guarantee known as a Guarantee of Revenue (GoR) which guarantees Ausgrid a certain level of revenue in relation to a substantial *augmentation* that Ausgrid has funded in order for the customer to connect. See section 8.

Charges for Ongoing Supply Services

For information purposes only, this Policy also sets out miscellaneous fees that Ausgrid may charge once a new or altered connection has been energised. These fees are explained in section 4 and Appendix B.

Note:

This Policy does not apply to connections to Ausgrid's network by registered participants or intending registered participants in the wholesale market. These connections are covered by the provisions of chapter 5 Network Connection, of the *NER*.

1.2 Connection-Charges

The connection charges that customers seeking a new or altered connection of their premises to Ausgrid's distribution system are required to pay to Ausgrid are:

1. Ancillary service fees for all ancillary services provided by Ausgrid in order for the customer to connect – see section 4;
2. Metering service fees for the provision of the meter required for the connection – see section 5;
2. Other fees if a site inspection is required and/or negotiation fee for a negotiated connection offer – see section 6;
3. Pioneer scheme payment if a pioneer scheme exists for the assets to which the customer connects – see section 7;
4. In addition the customer may also be required to provide Ausgrid with a financial guarantee in certain circumstances where Ausgrid funds a network augmentation – see section 8.

2 Customer Funded Connection Works & Network Augmentations

For ease of reference Ausgrid has described the types of connection works and services that customers must fund by reference to whether the costs are incurred in relation to a basic connection services or standard connection services.

The charges for basic connection services are generally uniform and confined to funding premises connection assets and paying ancillary service fees and metering service fees as the connections to which they relate do not require any network *augmentation* other than *extensions* for premises connection assets.

The charges for standard connection offers also include the *extension* and *augmentation* costs as well as funding premises connection assets and ancillary service fees and metering service fees. The *augmentation* costs are determined by reference to a capital contribution threshold set by Ausgrid.

Appendix A provides a summary of the fees and charges payable in relation to each connection offer.

2.1 Basic Connection Offers

These offers are typically applicable to single residential premises, small commercial premises and small multi-occupant developments. They are also applicable to customers who install a micro embedded generator within their installation.

Customers who receive one of Ausgrid's basic connection offers will be required to fund the contestable works (i.e. make a capital contribution) associated with:

- their *premises connection assets*, and
- any dedicated network *extension*.

These customers will not be required to fund any *augmentation* of Ausgrid's shared network beyond the linkage point. The capital contributions made by the customer are payable directly as charges to the *ASP* and are not set out in this Policy.

The customer must also pay any ancillary service fees and metering service fees associated with their connection. These are explained in detail in section 4 and Appendix B.

In some circumstances a site inspection fee or pioneer scheme payment may also be required.

The contestable work required to install or alter the customer's premises connection assets and any dedicated network *extension* will be carried out by the customer's *ASP*. This includes the provision of the service line and installation of the meter by the customer's level 2 *ASP*, refer to Appendix A.

2.2 Standard Connection Offers

These offers are typically applicable to large multi-occupant developments, and large commercial and industrial developments as well as rural customers who require augmentation work.

Ausgrid's standard connection offers apply to connections where an *augmentation* of Ausgrid's shared network may be required to enable the customer's connection to occur.

In addition, if a low voltage network extension is required that involves design by a Level 3 *ASP* and/or construction by a Level 1 *ASP* then a standard connection offer will be made.

Customers who receive standard connection offers will be required to fund the contestable works (i.e. make a capital contribution) associated with:

- their *premises connection assets*,
- any dedicated network *extension*, and
- in relation to *real estate developers* and non-registered embedded generators, any *augmentation*;
- in relation to *retail customers*, any *augmentation* of the shared network, if the capacity applied for exceeds the thresholds set out in section 3.

Different thresholds apply to retail customers depending on whether the connection is in an urban or rural area. ~~i.e. whether the customer is a large load customer or a rural customer respectively.~~

Ausgrid will fund the shared *augmentation* works if a customer applies for a capacity below the threshold set out in section 3. This threshold has been established by Ausgrid to meet the requirements of clause 5A.E.1(b)(2) of the *NER* to indicate the threshold below which a retail customer will not be required to make a capital contribution towards the cost of the shared network *augmentation*.

The customer must also pay for ancillary service fees and metering service fees associated with their connection. These are explained in detail in section 4 and Appendix B.

In some circumstances a site inspection fee (see section 6) or pioneer scheme payment may also be required as explained in section 7 and Appendix D respectively.

Some customers may also be required to provide a financial guarantee or Guarantee of Revenue (GoR), where their connection requires substantial Ausgrid funded *augmentation* works. The circumstances in which a GoR may be required are set out in more detail in section 8.

The contestable work required to design and construct customer funded augmentation works will be carried out by the customer's level 3 and level 1 ASPs respectively. The capital contributions associated with the contestable works are payable as charges directly to the relevant ASP and are not set out in this Policy.

Ausgrid will require reasonable prepayment of ancillary service fees associated with standard connection offers – see section 9. Ancillary service fees are listed in the tables at the end of this connection policy.

2.3 Negotiated Connection Offers

Customers who receive a negotiated connection offer from Ausgrid will be required to pay connection charges to Ausgrid and/or make capital contributions to the ASP for the *connection works* on the same basis as for customers who receive basic or standard connection offers.

In addition, these customers may also be required to pay a negotiation fee to cover the expenses reasonably incurred by Ausgrid in assessing the customer's application and preparing a negotiated connection offer. The fee is quoted on the basis of an hourly rate and is listed in Appendix F.

Customers who receive a negotiated connection offer may be required to provide a financial guarantee or GoR, where their connection requires substantial Ausgrid funded *network augmentation* works. The circumstances in which a GoR may be required are set out in more detail in section 8.

Ausgrid will require reasonable prepayment of ancillary service fees associated with a negotiated connection offer – see section 9. Ancillary service fees are listed in the tables at the end of this connection policy.

2.4 Contestability of Connection Works

Under section 31 of the Electricity Supply Act 1995, where a customer is required to procure and fund *connection works* or *network augmentations*, the customer may do this by engaging an ASP to design and/or construct those works as contestable works. The ASP must be suitably accredited under the NSW Accreditation Scheme administered by the Department of Trade and Investment Regional Infrastructure Services (DTIRIS).

The customer pays the ASP directly for these services including for any assets installed (i.e. a capital contribution).

2.5 Connection Works Funded by Ausgrid

Ausgrid may determine that certain connection works or portions thereof which are *augmentation* that would normally be funded by customers and provided on a contestable basis will be carried out and funded by Ausgrid. Ausgrid will make this determination based on risk management principles, related to certain criteria such as safety, network security and reliability of supply to customers.

Based on a risk assessment by Ausgrid, the following categories of connection works ~~may will not be made contestable, and will therefore,~~ be carried out and funded by Ausgrid:

- Design and construction of underground gas and oil sub transmission cables
- Design and construction of overhead steel lattice tower sub transmission lines
- All HV cable identification, stabbing and phasing
- HV testing of installed 11kV underground polymeric cables prior to commissioning, where the cables are to be locally energised at existing Ausgrid substations
- All work within existing substations including pole transformer substations that are connected to the network and are energised
- Induced HV tests on new transformers supplied and funded by Ausgrid and delivered to site by the manufacturer
- Minor capital street lighting projects
- Based on an individual risk assessment carried out by Ausgrid, certain major projects such as transmission, sub-transmission, zone substation, and Sydney CBD projects.
- Optical fibre termination.

2.6 Shared Connection Works

~~Ausgrid will consider the potential for any new dedicated mains extension supplying a new customer, to be used to supply another new customer(s) (on separate premises), in the foreseeable future. This could occur via a direct connection to, or via a further mains extension of, the original mains extension. If at the time the original connection application is received by Ausgrid, there is a reasonable likelihood of such asset sharing taking place~~

~~in the foreseeable future (7 years), then the original mains extension will be classed as shared network augmentation and be funded by Ausgrid.~~

2.82.6 Customer Requested Alternative or Additional Connection Works

Ausgrid specifies the economic optimum size *connection works* in accordance with its network standards, to adequately supply the assessed electrical load requirements of customers. However, if a customer requests any alternative or additional *connection works* to the standard Ausgrid construction, and Ausgrid agrees with the request, the customer will be required to fund any additional costs thereby incurred by Ausgrid. This includes the additional cost of any alternative or additional HV equipment that would otherwise be funded by Ausgrid in accordance with clause 2.5.

3 Capital Contribution Thresholds

A capital contribution is a payment made by a customer towards the cost of a connection to Ausgrid's network. In NSW, where a customer is required to fund connection works, the customer can engage an *ASP* to undertake the works (known as contestable services). This means the capital contribution is payable to the *ASP*, not Ausgrid. This Policy sets out the circumstances when a capital contribution is payable. The amount of the capital contribution is separately determined between the customer and the *ASP* and is outside the scope of this Policy.

A retail customer (other than a *real estate developer* or a non-registered embedded generator) will not be required to make a capital contribution towards the cost of *augmentation* (to the extent it involves more than an extension) if:

- the connection services being sought by the connection applicant are basic connection services; or
- the capital contribution thresholds set by Ausgrid are not exceeded.

3.1 Capital Contribution Thresholds

Ausgrid has established ~~three two~~ thresholds below which retail customers will not be required to make a capital contribution towards the cost of network augmentations:

1. A customer substation threshold for urban areas; ~~and~~
2. A rural threshold for customers in rural areas; ~~and~~
3. A large load threshold for customers with large loads.

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The Capital Contribution Thresholds will apply for the 2015-19 regulatory control period.

3.1.1 Real Estate Developments and Embedded Generators

Real estate developments and embedded generators that cannot be supplied by the adjacent Ausgrid network will be required to fund a substation on the development or additional capacity in the vicinity of the development or embedded generator.

In this case Ausgrid will require the connection applicant to fund as contestable works:

- For onsite substations: The design and construction by an *ASP* of the substation and a network extension consisting of the dedicated High Voltage (HV) mains to the substation;

Note: The standard reticulation is a loop-in arrangement, i.e. 2 cables, or if an alternative arrangement consisting of a single (radial) HV cable connection and an LV interconnector is agreed to by Ausgrid, this LV interconnector will also be funded by the customer.
- For other network augmentations in the vicinity of the premises: The design and construction of any network augmentations that are required to make the required capacity available at the premises of the connection applicant;
- The substation building construction for chamber substations; and any site preparation works, including special foundations, footings, piers, retaining walls and railings for kiosk substations.

The connection applicant must provide a suitable substation site on their premises as close as possible to the street frontage where requested by Ausgrid.

3.1.2 Retail Customer Network Thresholds for Urban Areas

Ausgrid has adopted the following threshold to determine when a retail customer must contribute to the cost of expanding the capacity of the Ausgrid network (i.e. make a capital contribution):

Retail Customer > 100 Amps

Where a retail customer in an urban network requires 100 Amps or more (per phase over 3 phases) and the adjacent Ausgrid network cannot supply the required load, the customer will be required to fund either:

- *One or more new substations on or in the vicinity of the premises of the development;*
- *Additional network capacity in the vicinity of the premises of the development.*

This will require the customer to fund as contestable works:

- For onsite substations: The design and construction by an ASP of the substation and a network extension consisting of the dedicated High Voltage (HV) mains to the substation;

Note: The standard reticulation is a loop-in arrangement, i.e. 2 cables, or if an alternative arrangement consisting of a single (radial) HV cable connection and an LV interconnector is agreed to by Ausgrid, this LV interconnector will also be funded by the customer.
- For other network augmentations in the vicinity of the development: The design and construction of network augmentations that are required to make the required capacity available at the premises of the development
- The substation building construction for chamber substations and any site preparation works, including special foundations, footings, piers, retaining walls and railings for kiosk substations.

The nature and scope of the additional capacity will be determined by Ausgrid to meet the proposed customer load and Ausgrid network requirements.

The new substations or additional network capacity will be designed to be the minimum economic size or accommodate the minimum number of transformers necessary to supply the ultimate forecast load requirements of the proposed development.

3.1.3 Threshold for Rural Customers

Rural customers are required to fund any shared *network augmentation* that is required for their connection where the customer's new load is greater than 25 kVA single phase.

Rural customers must also fund any *augmentation* by way of any required dedicated customer substation equipment. If this substation is likely to supply the surrounding network in the next 7 years Ausgrid will contribute to its cost on a pro rata basis. A pioneer scheme will be implemented with respect to either *connection works* or shared *network augmentation* works funded by *rural customers*, as outlined in Appendix D.

Ausgrid's Model Standing Offer: *Standard Connection Services for Contestable ASP/1 Premises Connections no greater than 11 kV* has been prepared to apply to this type of connection.

3.1.4 When Ausgrid Will Fund Connection Costs

However, Ausgrid will refund the connection applicant a proportion of the customer's costs (outlined above), corresponding to the spare or unused capacity of the substation or other augmentation, which is available and likely to supply general network load external to the development within the next 7 years, once the ultimate forecast load of the customer has been supplied. This refund will exclude the cost of any ancillary service fees and the value of the land/space made available for the substation. This amount will be determined upfront by Ausgrid using standard rates and consistent with its 2015-19 regulatory determination which regulates revenues for standard control services and will be included in the relevant connection offer. In these circumstances where Ausgrid provides a refund for connection applicant funded works, the substation will not be eligible for a pioneer scheme (see section 7) and the customer will not be entitled to a pioneer scheme payment if subsequent customers connect to the relevant connection assets.

Ausgrid's Model Standing Offer: *Standard Connection Services for Contestable ASP/1 Premises Connections no greater than 11 kV* has been prepared to apply to this type of connection. There is no basic or standard model standing offer for connections greater than 11 kV, these will require a negotiated connection offer.

The connection applicant must provide a suitable substation site on their premises as close as possible to the street frontage where requested by Ausgrid.

Should the premises providing the substation accommodation, require increased load in the future, the connection applicant may be required to contribute to the direct costs of reconnecting some or all of the load external to the premises, in order to supply the customer's load.

Connection applications from retail customers in an urban network for up to and including 100A will not be required to contribute to the cost of a new substation. An example would be a single dwelling requiring less than 100A.

3.1.4 Threshold for Large Load Customers

~~*Large load customers may be required to fund any high voltage network augmentation that is required for their connection.*~~

~~*A customer will be assessed by Ausgrid as a large load customer where their expected load exceeds the following threshold, i.e. their existing load (if any) plus their proposed new load as specified in their connection application is greater than:*~~

➤ 4 MVA, maximum demand.

The assessment will be made using the network configuration and network loading at the time of the first application and will consider applications for the same or adjacent premises submitted within a period of 2 years from the date of the original application for new load.

Ausgrid will establish a pioneer scheme, for new large load customers, as outlined in Appendix D.

3.2 Calculation of Capital Contributions

This Policy sets out the circumstances when a capital contribution will be payable by a customer. It does not set out how the amount of any capital contribution is calculated because the customer does not pay Ausgrid a capital contribution. When a customer is required to make a capital contribution, the connection work related to the contribution is a contestable service in NSW and the customer engages an ASP to undertake the work. The customer pays the capital contribution to the ASP and the cost is determined on a competitive basis.

Capital contributions arise in the following circumstances:

- by real estate developers and non-registered embedded generators for all connection works including extensions and augmentations;
- by retail customers below the Capital Contribution Thresholds identified in section 3.1 (i.e. for premises connection assets and extensions);
- by retail customers above the Capital Contribution Thresholds identified in section 3.1.

In circumstances where Ausgrid funds an *augmentation*, the service provided is classified by the AER as a standard control service. The AER Connection Charge Guidelines allow Ausgrid to seek a capital contribution from a customer if the incremental cost of the service provided exceeds the estimated incremental revenue expected to be derived from the service. Ausgrid does not seek a capital contribution from customers in these circumstances as the incremental cost does not exceed the incremental revenue.

The capital contributions made by customers by way of charges to the ASP are set on a competitive basis. If Ausgrid agrees to refund the customer for capital contributions made by customer (e.g. Ausgrid uses the spare capacity), the refund is not a capital contribution and is determined by Ausgrid in accordance with its 2014-15 transitional regulatory determination which regulates the recovery of revenue for standard control services (which is the service provided by the network augmentation).

If a pioneer scheme relates to the assets for which the customer has made a capital contribution, the customer may be entitled to a pioneer scheme refund. See section 7.

3.3 Calculation of Connection Applicants Maximum Demand

When a connection applicant submits a connection application to Ausgrid they are required to also submit maximum demand calculations in accordance with AS/NZS3000. For larger developments the maximum demand worksheet must be included with the connection application. Ausgrid will use the maximum demand calculations provided by the applicant to determine the appropriate connection offer that will be made and the capital contribution threshold that will apply. Ausgrid does not use consumption calculations to determine the appropriate threshold that will apply.

4 Ancillary Services and Fees

Ancillary Services provided by Ausgrid fall into 3 categories:

1. Ancillary Services which are required in order for a customer to connect to Ausgrid's network (Connection related Ancillary Services);
2. Ancillary Services which are provided to customers as part of their ongoing supply service provided by Ausgrid under a different contract (Miscellaneous Ancillary Services); and
3. Metering related Ancillary Services which are ancillary services relating to the provision, installation and maintenance of metering installations .

Connection related Ancillary Services

These are customer specific connection services that only Ausgrid can perform, which facilitate contestable *connection works* carried out by ASPs and which are required for Ausgrid to connect. These services are necessary to ensure that an appropriate level of reliability, quality of supply and safety is maintained in the operation of Ausgrid's network. The AER reviews and approves these services and sets their rates and conditions. These services were previously known as Monopoly Services but since 1 July 2014 are known as Ancillary Services.

The charges for ancillary services are approved by the *AER* for each financial year and are included in Appendix B.

Miscellaneous Ancillary Services

These Ancillary Services are provided by Ausgrid on "as needed" basis to the customer after the connection has been established. These ancillary services are not part of the connection service provided under Chapter 5A of the *NER* and are not connection charges under Chapter 5A.

These services are included in this Policy for information services and are payable by the customer under its ongoing supply contract with Ausgrid. A full list of these services is contained in Appendix D.

Ancillary Services related to Metering

Ausgrid also provides Ancillary Services which specifically relate to metering, such as carrying out special meter readings and meter testing. It also provides and installs current transfer (CT) metering. The charges for these services are set out in Appendix C.

5 Metering Services

Other than the metering related Ancillary Services, the only other relevant metering service provided by Ausgrid in relation to connection services is the provision of the meter required for the connection. The customer is required to fund the cost of the provision of a meter, if supplied by Ausgrid. The charge payable by the customer is called a new or upgraded metering charge. It is approved by the *AER* for each financial year and is published on Ausgrid's website and in Appendix C.

The service relating to the installation of the meter is provided by an *ASP* and the cost of the service is payable to the *ASP*. Other metering services provided by Ausgrid are payable by the customer as part of the customer's ongoing supply network charges and are not subject to this connection policy.

6 Other fees

Chapter 5A of the National Electricity Rules allows Ausgrid to charge certain fees to recover its costs from providing certain connection services relating to processing the connection application.

Site inspection fee

Where Ausgrid reasonably needs to make a site inspection in order to determine the nature of the connection service sought by the connection applicant, Ausgrid may charge its reasonable expenses to the connection applicant and recover those expenses as a debt.

Ausgrid charges a fixed fee for site inspection fees which is based on its costs to attend and assess the proposed connection site. This fee is \$370 for urban areas and \$650 for rural areas.

Negotiation fee

Where a connection applicant has elected to enter into a negotiated connection contract under Chapter 5A, Ausgrid may charge the applicant a reasonable fee to cover expenses directly and reasonably incurred by Ausgrid in assessing the applicant's application and making a connection offer.

Ausgrid has established an hourly rate which reflects the various input costs involved in processing a negotiated connection application and offer. Ausgrid then multiplies this rate by the number of hours spent by the various Ausgrid staff in assessing the negotiated connection application and preparing the negotiated connection offer. The hourly rates are in Appendix F.

7 Pioneer schemes

Under Chapter 5A, Ausgrid is required to operate a pioneer scheme which requires Ausgrid to make refunds to retail customers who funded connection assets within 7 years which are no longer being dedicated to the exclusive use of that customer. The refund is made by way of a connection charge (known in this Policy as a pioneer scheme payment) payable by the new users of the assets.

Appendix D sets out how Ausgrid calculates the pioneer scheme payments and refunds in respect of assets which are subject to a pioneer scheme.

8 Financial Guarantees (Security Fees)

In accordance with chapters 5A and 6 of the *NER* Ausgrid will require a customer to provide a financial guarantee (also known as security fee) or Guarantee of Revenue (GoR), where their connection requires substantial Ausgrid

funded *network augmentation* works (nominally \$1M or more) that is initially only for the customer's benefit. In these circumstances Ausgrid considers there is a high risk that Ausgrid may not earn the estimated incremental revenue from the construction of the *network augmentation* works.

Generally a GoR will only be required in relation to connections that are the subject of a negotiated connection offer.

A GoR is a binding legal agreement between Ausgrid and the connection applicant where the connection applicant guarantees to pay Ausgrid a minimum level of network revenue each year for the duration of the GoR agreement, to make up any shortfall in their actual Network Use of System (NUoS) charges over the period, which is nominally 5 years, although this can be varied between 5 and 10 years on a case by case basis. The security amount will not be greater than the present value of the incremental costs that Ausgrid incurred by Ausgrid in undertaking network augmentation. The security amount under the GoR will be calculated by reference to the incremental revenue Ausgrid expects to receive from the network augmentation. The security amount will not be greater than the amount of the estimated incremental revenue which Ausgrid assesses as having a high risk of not being recovered.

The GoR will be established at the same time as the design information package is issued and prior to the *network augmentation* works being initiated. This will allow the *network augmentation* works to proceed in parallel with the associated *contestable works*.

The GoR is secured by a bank guarantee provided by the customer, or other suitable financial instrument as agreed by Ausgrid. Ausgrid is entitled to withdraw from the bank guarantee any shortfall in actual NUoS payments, in accordance with the terms stated in the deed and the bank guarantee.

9 Prepayments

Ausgrid will only seek prepayments in circumstances which are permitted by the regulatory environment and in particular Chapter 5A and the AER Connection Charge Guidelines.

Ausgrid will seek upfront payment of a customer's ancillary service fees for design work when the design contract is accepted by the connection applicant.

Ausgrid will seek reasonable upfront payment of ancillary service fees when a connection offer is made or before construction starts.

If the *connection works* can be logically segmented into distinct stages of construction then a payment schedule that aligns with the construction stages will be negotiated.

10 Dispute Resolution

A dispute between a retail customer or a real estate developer and Ausgrid about connection charges is an access dispute for the purposes of section 2A of the National Electricity Law, which may be referred to the AER for resolution in accordance with part G of chapter 5A of the *NER*.

Prior to referring the matter to the AER, Ausgrid encourages customers to first attempt to resolve the dispute directly with Ausgrid, in accordance with the internal dispute resolution policy we have adopted for reviewing any decision Ausgrid makes that may affect customers. Details of how to apply for review of a decision by Ausgrid and how Ausgrid will conduct the review are available on Ausgrid's website <http://www.ausgrid.com.au/connectingtothenetwork> and click on the link "Lodging a complaint".

If you are a small customer you may also refer your dispute to the Energy and Water Ombudsmen NSW (EWON) to resolve the matter.

Dictionary

A note on terms and definitions

As far as possible, Ausgrid has used terms and definitions which are consistent with chapter 5A of the *NER*. So for instance we use the term “premises connection assets” to refer to the works required to extend Ausgrid’s network to enable a connection to occur which are substantially located on a customer’s premises and generally dedicated to connecting that customer. However, in some instances we also use other terms, such as “linkage point” as these terms are necessary to explain the extent to which a customer funds *premises connection assets*, *extensions* and *augmentations*.

The terms shown in *italics* throughout this document have the following meanings:

augmentation	Work to enlarge a distribution or transmission system or to increase its capacity to transmit or distribute electricity
AER	The Australian Energy Regulator
ASP	An Accredited Service Provider, being a person accredited under Part 10 of the Electricity Supply (General) Regulation 2001 (NSW)
connection works	<p>In relation to a new customer, are those works yet to be constructed which will, upon construction:</p> <ul style="list-style-type: none">(a) enable Ausgrid to provide customer connection services requested by that new customer; and(b) form part of the network on the side of the <i>linkage point</i> where all the network assets on that side are dedicated to one or more customers. <p>These include (without limitation):</p> <ul style="list-style-type: none">(c) in the case of services to new connection points (as defined in the National Electricity Rules) requested by a new customer, works to connect the customer’s premises at that connection point to the existing network; and(d) in the case of services to existing connection points:<ul style="list-style-type: none">replacements of existing assets servicing that connection point, where those existing assets, at the time of their replacement, satisfy (a) and (b) above; oradditional new works that satisfy (a) and (b) above in relation to that connection point,<p>in order to provide additional service at that connection point requested by the new customer.</p>
extension	New network infrastructure outside the present boundaries of Ausgrid’s network to a customer’s premises.
large load customer	A new customer whose expected load (as specified in its application for customer connection services that will require shared <i>network augmentation</i>) is 4MVA or more at a nominal 11kV, maximum demand as assessed by Ausgrid.
linkage point	<p>The point on the network where the use of assets changes from being dedicated to one or more customers (where all the network assets on that side of the point are so dedicated), to being shared with customers generally. For this purpose, assets are considered to be dedicated to one or more customers only if they are:</p> <ul style="list-style-type: none">(a) used by one customer exclusively; or(b) shared by more than one customer in circumstances where Ausgrid has required that those customers together procure and fund the same connections works
NER	The National Electricity Rules
network	Ausgrid’s electricity distribution system
rural customer	A new customer whose premises, the subject of its application for customer connection services, are connected or will be connected (once any relevant connection works are constructed) to the network at a point at which the network is a <i>rural network</i> .
rural network	That part of the network:

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- (a) that is in an area zoned as rural under a local environment plan (made under the Environmental Planning and Assessment Act 1979 (NSW)); or
- (b) that is in an area predominantly used for agricultural purposes

urban network That part of the network that is not a *rural network*.

Appendix A: Summary of Ausgrid's connection offers and their associated connection charges

Connection Offer	Typical example or application	Fees and charges involved in establishing connection	Contestable work carried out by:
Basic:			
1. Model Standing Offer Basic Connection Services – 100 Amps Connections	<ul style="list-style-type: none"> single home small shop 	<ul style="list-style-type: none"> Installation of dedicated premises connection assets, payable to the customer's level 2 ASP Ancillary service fees associated with the contestable work, payable to Ausgrid Fee for new or upgraded meter Site inspection fee payable to Ausgrid, if a site inspection is performed Pioneer scheme costs as applicable 	Level 2 ASP, for the installation of the dedicated premises connection assets i.e. the service line and the Type 5 whole current metering, and energising the connection NB. <ul style="list-style-type: none"> Ausgrid installs Type 5 current transformer metering at no charge to the customer The retailer arranges for the installation of Type 4 whole current or current transformer metering and charges the customer accordingly
2. Model Standing Offer Basic Connection Services – Connections over 100 Amps	<ul style="list-style-type: none"> small multi-occupant development medium commercial or industrial developments large multi-level premises load increase 		
3. Model Standing Offer Basic Connection Services – Micro EG Connections	<ul style="list-style-type: none"> roof-top solar panel installation 		
Standard:			
2. Model Standing Offer Standard Connection Services for Contestable ASP/1 Premises Connections no greater than 11kV	<ul style="list-style-type: none"> A customer connection involving contestable services. 	<ul style="list-style-type: none"> Premises connection assets payable to ASP, refer to section 3 for customer substation thresholds, Network augmentation or <i>extension</i> payable by ASP, refer to section 3 for associated customer network thresholds, and Pioneer scheme costs as applicable Ancillary service fees associated with the contestable work, payable to Ausgrid 	Level 3 and level 1 ASP, for the design and construction of the premises connection assets, network <i>extension</i> and <i>network augmentation</i> assets, as applicable
3. Model Standing Offer Standard Connection Services – Ausgrid augmentation works including on-site substations	<ul style="list-style-type: none"> A customer connection or alteration that requires an Ausgrid funded on site substation. 	<ul style="list-style-type: none"> Fee for new or upgraded meter Site inspection fee payable to Ausgrid, as applicable Property tenure costs payable to third parties 	
4. Model Standing Offer Standard Connection Services – Ausgrid augmentation (substation upgrade) works	<ul style="list-style-type: none"> A customer connection alteration (load increase) where the customer has an onsite substation 	<ul style="list-style-type: none"> A GoR may be required if the connection requires substantial Ausgrid funded <i>network augmentation</i> works, see section 7 	
5. Model Standing Offer Standard Connection Services – Ausgrid off-site augmentation works	<ul style="list-style-type: none"> A new connection or connection alteration requiring Ausgrid funded augmentation works in the nearby network. 		
Negotiated:			
In accordance with Ausgrid's Connection Negotiation Process, and the negotiation framework in chapter 5A of the <i>NER</i>	<ul style="list-style-type: none"> Large commercial or industrial complex 	<ul style="list-style-type: none"> As above for the standard offer, plus Negotiation expenses, payable to Ausgrid A GoR may be required if the connection requires substantial Ausgrid funded <i>network augmentation</i> works, see section 7 	As above for the standard offer

Appendix B: Connection Related Ancillary Services

[Drafting note for the AER: This Appendix will be updated each year to reflect the prices approved by the AER for that year in accordance with Ausgrid's distribution determination for the 2014-2019 regulatory control period.]

Table 2: Charges for ancillary services associated with contestable connection and asset relocation works (prices include GST)

Clause ref.	Ancillary service	Underground urban residential subdivision (vacant lots)	Rural overhead subdivisions and rural extensions	Underground commercial and industrial or rural subdivisions (vacant lots - no development)	Commercial and industrial developments	Asset relocation or street lighting
B1	Design information	Underground urban residential subdivision (vacant lots) Up to 5 lots \$???? 6 to 10 lots \$???? 11 - 40 lots \$???? Over 40 lots \$????	Rural overhead subdivisions and rural extensions \$???? per hour	Underground commercial and industrial or rural subdivisions (vacant lots - no development) \$???? per hour	Commercial and industrial developments \$???? per hour	Asset relocation or street lighting \$???? or \$???? per hour (see Note 2)
		Kiosk Substation , High Voltage Connection and Pole Transformer \$??? Per Substation				
		Chamber Substation , Multiple Kiosk Installation and Sydney Central Business District Substation \$??? per hour				
B2	Design certification	Underground urban residential subdivision (vacant lots) Up to 5 lots \$???? 6 to 10 lots \$???? 11 - 40 lots \$???? Over 40 lots \$????	Rural overhead subdivisions and rural extensions 1 - 5 poles \$???? 6 -10 poles \$???? 11 or more poles \$????	Underground commercial and industrial or rural subdivisions (vacant lots - no development) Up to 10 lots \$???? 11 - 40 lots \$???? Over 40 lots \$????	Commercial and industrial developments \$???? per hour	Asset relocation or street lighting \$???? or \$???? per hour (see Note 2)
		Kiosk Substation , High Voltage Connection and Pole Transformer \$??? Per Substation				
		Chamber Substation , Multiple Kiosk Installation and Sydney Central Business District Substation \$??? per hour				

B3	Design rechecking	Underground urban residential subdivision(vacant lots) \$???? per hour	Rural overhead subdivisions and rural extensions \$???? per hour	Underground commercial and industrial or rural subdivisions (vacant lots - no development) \$???? per hour	Commercial and industrial developments \$???? per hour	Asset relocation or street lighting \$???? or \$???? per hour (see Note 2)
B4	Inspection of service work (level 1 work) (see Note 3 & 4)	Underground urban residential subdivision(vacant lots)	Rural overhead subdivisions and rural extensions	Underground commercial and industrial or rural subdivisions (vacant lots - no development)	Commercial and industrial developments	Asset relocation or street lighting
		Grade: A per lot \$???? B per lot \$???? C per lot \$???? First 10 lots: \$???? \$???? \$???? Next 40 lots: \$???? \$???? \$???? Remainder: \$???? \$???? \$????	Grade: A per pole \$???? B per pole \$???? C per pole \$???? 1-5 poles \$???? \$???? \$???? 6-10 Poles \$???? \$???? \$???? 11+ poles \$???? \$???? \$???? PTs \$???? \$???? \$????	Grade: A per lot \$???? B per lot \$???? C per lot \$???? First 10 lots \$???? \$???? \$???? Next 40 lots \$???? \$???? \$???? Remainder \$???? \$???? \$????	\$???? or \$???? per hour plus \$???? flat fee (travel time) (see Note 3 & 6)	\$???? or \$???? per hour plus \$???? flat fee (travel time) (see Note 3 & 6)
		plus \$???? flat fee (travel time)	plus \$???? flat fee (travel time)	plus \$???? flat fee (travel time)		
	Reinspection	High voltage or low voltage underground joint \$???? per hour	Decommission a substation \$???? per hour	Substation Inspection (kiosk or pole transformer) \$???? per hour		
		\$???? rate per hour				
B5	Access permit	Underground urban residential subdivision(vacant lots) Residential subdivisions: \$???? per lot combined fee with commissioning	Rural overhead subdivisions and rural extensions. it	Underground commercial and industrial or rural subdivisions (vacant lots - no development) \$???? max. per access permit	Commercial and industrial developments \$???? max. per access permit Asset relocation or street lighting \$???? max. per access permit	
		Complex and Chamber substations \$???? or \$???? per hour				

B6	Contestable Substation commissioning	Underground urban residential subdivision(vacant lots) Residential subdivisions: \$???? per lot combined fee with access permits.	Rural overhead subdivisions and rural extensions. \$???? per substation (see Note 5)	Underground commercial and industrial or rural subdivisions (vacant lots - no development) \$???? per hour (see Note 5)	Commercial and industrial developments \$???? per hour (see Note 5)	Asset relocation or street lighting \$???? per hour (see Note 5)	
B7	Administration Services	Underground urban residential subdivision(vacant lots) Up to 5 lots \$???? 6 - 10 lots \$???? 11 - 40 lots \$???? Over 40 lots \$????	Rural overhead subdivisions and rural extensions. Up to 5 poles: \$???? 6-10 poles: \$???? 11 or more poles \$????	Underground commercial and industrial or rural subdivisions (vacant lots - no development) \$???? per hour (max 6 hours)	Commercial and industrial developments \$???? per hour (max 6 hours)	Asset relocation or street lighting \$???? per hour	
		Subdivisions involving substations. \$???? per substation					
		Additional services required by ASP/Applicant e.g Guarantee of revenue, clarification meetings, variations to contract, reinspections etc. \$???? per hour					
B8	Notice of arrangement	\$???? Fixed fee per notification of arrangement.					
B9	Access (standby person)	Quoted service based on an hourly rate					
B10	Inspection of service work (level 2 work)	All Service connections: (NOSW = Notification of Service Work) (see Note 8)	A Grade : \$????per NOSW	B Grade: \$???? per NOSW	C Grade: \$???? per NOSW		
B11	Re-inspection (Level 2 work)	Quoted service based on an hourly rate. \$???? per hour					
B12	Clearance To Work	\$???? Fixed fee per occasion.					
B13	Site establishment	\$???? See notes					
B15	Customer Interface Coordination for Contestable Works	Quoted service based on an hourly rate of \$????					
B16	Preliminary Enquiry Service	Quoted Service per enquiry based on an hourly rate of \$????					

B17	Connection Offer Service	<p>Basic Connection Offers Micro Embedded Generator, up to 5kW \$???? Micro Embedded Generator, over 5kW \$???? Over 100A Connection Offer \$????</p> <p>Standard Connection Offers Standard Off Site Connection Offer \$???? Standard On Site Connection Offer \$???? Standard ASP1 Connections \$???? Embedded Generator hour rate of \$????</p>
B18	Connection / Relocation Process Facilitation	Hourly Rate per connection project of \$????
B19	Planning Studies and analysis.	Hourly Rate per planning study.
B20	Deeds of Agreement Service	Hourly rate per connection project of \$???? Contracted Legal Fees of \$?????

Table 3 below provides details of the hourly labour rates for various classes of labour. Ausgrid will determine whether the service is to be provided by an inspector or an engineer at that class, depending on the nature and complexity of the service. Labour rates have been set by the AER by reference to four different classes of labour: R1, R2a, R2b and R3. The labour classes and the relevant hourly rates are set out in table 3 below.

Table 3: Charges for ancillary services associated with contestable connection and asset relocation works (prices include GST)

Labour class	Normal time Hourly rate	Overtime Hourly rate
Administration (R1)		
Design (R2a)		
Inspector (R2b)		
Engineer (R3)		

Prices are inclusive of GST

Table 2 Notes:

1. **Lots**
Where an ancillary service relates to a service connection required for multiple dwelling subdivisions, the per lot fee in table 2 will be applied per service connection
2. **Travel time (for 'inspection of level 1 work')**
In addition to the charge specified or calculated in table 2, Ausgrid will charge 30 minutes travel time associated with the inspection of level 1 work at the \$???? hourly labour rate (i.e. \$????), as indicated in table 2
3. **Overtime**
If an ancillary service is provided outside the hours of 7.30am and 4.00pm on a working day at the request of a customer (other than where Ausgrid requires that the work be performed outside those hours) Ausgrid will charge 175% of the charge for that service carried out in normal working hours.
4. **Inspection (level 1 work)**
In the case of 'Commercial and industrial developments' and 'Asset relocation or street lighting', the level of inspection will be determined by Ausgrid, prior to performing the service.
The grade specified (A, B or C) is the grade of the level 1 ASP, accredited for that grade. (Similarly for level 2 ASPs).
5. **Substation commissioning:**
Other than in the case of 'Underground urban residential subdivision (vacant lots)', the charge specified only applies to a single transformer/RMI unit. In all other cases the service is to be charged at the \$???? hourly rate, refer to table 3 above.

B1 Design Information

The provision of information by Ausgrid to enable an ASP (level 3) to prepare a design drawing and to submit it for certification.

This may include without limitation:

- deriving the estimated loading on the system, technically known as the ADMD (After Diversity Maximum Demand). This estimate depends on such factors as the number of customers served and specific features of the customer's demand;
- copying drawings that show existing LV and HV mains (geographically and schematically) and adjacent project drawings;
- specifying the preferred sizes for overhead conductors or underground cables;
- specifying switchgear configuration type, number of pillars, streetlights etc.
- determining the special requirements of Ausgrid's planning departments necessary to make electrical supply available to a development and cater for future projects;
- any necessary liaison with designers associated with assistance in sourcing design information and developing designs; or
- nominating network connection points.

B2 Design Certification

A certification by Ausgrid that a design (if implemented) will not compromise the safety or operation of Ausgrid's distribution system.

This may include, without limitation:

- certifying that the design information / project definition have been incorporated in the design;
- certifying that easement requirements and earthing details are shown;
- considering design issues, including checking for over-design and mechanisms to permit work on HV systems without disruption to supply to customers (adequate LV parallels);
- certifying that funding details for components in the scope of works are correct;
- certifying that there are no obvious errors that depart from Ausgrid's design network standards and specifications;
- certifying that shared assets are not over-utilised to minimise developer's connection costs and that all appropriate assets have been included in the design;
- auditing design calculations such as voltage drop calculations, overhead conductor clearances (stringing) calculations etc.
- certifying that a bill of materials has been submitted; or
- certifying that an environmental assessment has been submitted by the ASP and appropriately checked.

B3 Design Rechecking

The rechecking of a design submitted for certification, except where the modifications to a design are of a trivial or minor nature.

B4 Inspection and Reinspection of Level 1 Work

Inspection by Ausgrid of work undertaken by a level 1 ASP, for the purpose of ensuring the quality of assets to be handed over to Ausgrid. Refer to note 6 and note 3 (for additional **travel time** charges) of the table 2 notes above.

B5 Access Permits

The provision of an access permit by Ausgrid to a person authorised (or observed) by Ausgrid to work on or near Ausgrid's distribution system. This service fee includes High Voltage access and may include without limitation:

- Researching and documenting the request for access including a site visit as required;
- Documenting the actual switching process;
- Programming the work;
- Fitting and removing of access permit earths;
- The actual switching of the High Voltage network including travel costs;
- Identification of any customers who will be interrupted for carding by the ASP;

- Low voltage switching and paralleling of substations that permits high voltage work without disrupting supply to other customers;
- Cable ID, stab, cut and phase;
- Reinstate network and testing;

This service excludes provision of temporary generators and Live Line operations to maintain supply. These are services are an additional cost and covered by another quoted service;

B6 Contestable Substation Commissioning

The commissioning by Ausgrid of a new substation, [kiosk or chamber] and includes all necessary pre-commissioning checks and tests prior to energising the substation via the high voltage switchgear and closing the low voltage circuit breaker, links or fuses and the setting or resetting of protection equipment and updating of engineering systems.

B7 Administration Services For ASPs

Work of an administration nature (not including work of an administrative nature described in service - Notice of Arrangement or Authorisation of ASPs), including the processing of Level 1 and/or Level 3 work where the customer is required to pay for the Level 1 and / or Level 3 work.

This may include without limitation:

- Checking supply availability;
- Processing applications;
- Correspondence from application to completion;
- Record – keeping;
- Requesting and receiving fees (initially, then prior to design and after certification);
- Receiving design drawings (registering and copying);
- Raising order for high voltage (HV) work;
- Calculating HV reimbursements;
- Calculating the cost of a project and warranty / maintenance bond;
- Organising refunds to developers for HV work;
- Liaising with developers via phone and facsimile;
- Updating Geographic Information Systems (GIS) and mapping;
- Supporting the process of design information, design certification and design rechecking.

B8 Notices of Arrangement

Work of an administrative nature performed by a DNSP where a local council requires evidence in writing from a DNSP that all necessary arrangements have been made to supply electricity to a development. This may include without limitation:

- Receiving and checking linen plans and 88B Instruments;
- Checking and recording easement details;
- Prepare records for conveyance officers;
- Liaise with developers if errors occur or changes are required;
- Check and receive duct declarations and any amended linen plans and 88B instruments approved by a conveyance officer;
- Confirm the works are completed in accordance with Ausgrid's requirements including substations and ducts, service mains to the customer's 'point of supply' and peg all easements and lot frontages and complete the works;
- Prepare notification of arrangement.

Ausgrid however, may issue a NoA prior to completion of the contestable works provided:

- the contestable design has been certified, and
- an additional bond has been deposited as a Banker's Guarantee, consisting of an amount equal to the value of the contestable works remaining to be completed which is returned if all of the above requirements have been satisfied.

B9 Access (Standby Person)

The provision of access to switch rooms, substations and the like to an ASP who is accompanied by a member of staff of Ausgrid, but does not include the circumstance where an ASP is provided with keys for the purpose of securing access and is not accompanied by a member of staff of Ausgrid. Preparation of Clearance to Work (CTW) is included and charged in the hourly rate so additional CTW fee not applicable.

B10 Inspection of Service Work (Level 2)

The inspection by Ausgrid, in accordance with the DTIRIS Accreditation of Service Providers Scheme of work undertaken by a level 2 ASP, for the purpose of ensuring the quality of assets to be handed over to Ausgrid.

The minimum number of inspection required must correspond to the grade of the DNSP as shown:

Grade of ASP	Number of inspections
A 1	Inspection per 20 jobs
B 1	Inspection per 5 jobs
C	Each job to be inspected

B11 Re-Inspection (Level 2 Work)

The re-inspection by Ausgrid of private electrical wiring work undertaken by an electrical contractor, required where the first inspection revealed defective work.

Note: no charge applies where DNSP carries out an initial inspection of private electrical installation work, during normal working hours, which has been notified by a Certificate of Compliance - Electrical Work (CCEW) form.

The service is applied when the inspector identifies a defect within an installation and issues a defect notice. Where more than one dwelling is found to be defective within a multi unit complex the service should be applied to each of these individual units.

B12 Clearance to Work

The provision of a clearance to work by Ausgrid to a person authorised to work on or near the system generally at a low voltage.

May include (inter alia):

- Researching and documenting the request for the Clearance to Work
- Operate the Low Voltage network including travel costs
- Identification of all customers who will be interrupted for ASP to notify
- Excludes provision of a temporary generator to maintain supply. These are services in addition and covered by a quoted service
- Reinstate network and testing

Note: In Ausgrid, an Access Permit is required when the LV is controlled by operation of a switch located within an electrical station or distribution centre. Therefore a Clearance to Work to access a LV direct distributor or network main is covered by the basic fee of the Access Permit service by a Class 1 Operator.

B13 Site Establishment

Site establishment services, including issuing of meters (where applicable) and liaising with Australian Energy Market Operator (AEMO) or market participants for the purpose of establishing NMIs in market systems, for new premises or for any existing premises for which AEMO requires a new NMI and for validation of and updating network load data.

Ausgrid may be notified to conduct this service via the use of the 'Allocate NMI' B2B service order.

B14 Customer Interface Coordination

This service is proposed where customer developments may require a high level of Ausgrid involvement in order to coordinate a range of inputs from Ausgrid to help establish the development. Usually projects with the following characteristics:

- Multiple components. For example, relocation and connection works associated with the one development, or works ≤ 11 kV and works at higher voltages.
- Projects with scheduling challenges such as rapid deployment requirements or constrained timeframes for particular tasks.
- Multiple and/or conflicting works to be undertaken in tandem or cooperation with other services or utilities.

- Projects where there are significant inter-relationships between capital and contestable works which would benefit from coordination.

The form of this service includes, but is not limited to, attendance at internal and external project meetings in accordance with the needs of particular customers. It requires strong communication skills and technical understanding. The nature of the project would determine the skill level of the assigned officer and the number of hours required.

B15 Preliminary Enquiry Service

Providing prospective connection applicants with specific information and advice in relation to the connection process and requirements associated with establishing a new or altered connection or a relocation of existing network assets. This service is for initial advice and excludes more detailed investigations/advice which may subsequently be required from Strategic Planning Studies and Analysis and Process Facilitation.

This service includes an initial site inspection and preparation of a written response addressing the issue(s) queried by the applicant. It may also include an initial customer meeting where requested. Enquiries where the enquirer is only seeking information that can be answered by referring to the correct part of the website would not be charged. However more involved responses where the cost to serve is more appropriately born by the applicant would be charged at the relevant fee for this optional service.

B16 Connection Offer Service

Services provided by Ausgrid in assessing connection applications and making basic or standard connection offers under the NECF framework.

Basic = involves minimal or no augmentation of the network (Basic 100A, Basic over 100A, Basic micro EG)

Standard = model standing offer applies - (substation off-site, substation on-site, substation upgrade)

This may include without limitation:

- Assessment of application by Team Leader.
- If the application is deemed to require a basic connection offer service the application is forwarded to Customer Operations who will process the offer.
- If the application is deemed to require a standard connection offer service the application is allocated to Contestability.

Contestability is responsible for deriving the estimated loading on the electrical distribution network, technically known as the ADMD (After Diversity Maximum Demand). This estimate depends on such factors as the number of customers served and specific features of the customer's demand.

Once the ADMD is derived the customer is advised what is required to connect to the electrical distribution network. This could be one of the following methods of supply;

- A direct distributor from an existing substation,
- A direct distributor from a new kiosk substation,
- A direct distributor from a new pole mounted transformer substation,
- A direct distributor from a new chamber substation.

Once the assessment has been completed by Contestability, Administration staff forward the assessment of the standard connection offer to the customer.

B17 Connection / Relocation Process Facilitation

Providing connection applicants with ongoing information and advice in relation to the connection process and requirements associated with establishing a new or altered connection or a relocation of existing network assets. This service is additional to the published instructions available to all applicants and is not a mandatory requirement of the connection process for standard connections to the distribution network ($\leq 11\text{kV}$). It would be recommended for first time contestable customers or customers with complex or challenging projects. The intent would be to help minimise project delays caused by customers not taking the required action at the optimum time in the process. This would be achieved by staff taking a proactive approach to communication and engagement with connection applicants. It is an essential requirement for major connection projects (greater than 10MW load or connected at $>11\text{ kV}$) because the process varies to meet particular project requirements (the electrical component potentially being a smaller but often critical part of a much larger project).

The form of this service includes, but is not limited to,

- Project coordination activities;

- One-on-one engagement to review project or process particulars;
- Consultation of connection particulars;
- Facilitation

B18 Planning Studies and Analysis Service

This service undertakes necessary planning studies and associated technical analysis to help determine suitable/feasible connection options for further consideration by proponents. The service applies mainly to large loads and generators where suitable connection options are not necessarily obvious and may result in potentially significant impacts on Ausgrid's existing network development strategies and augmentation requirements.

For some projects a technical assessment of a nominated option may need to be explored to ensure sufficient cost and timing certainty for an applicant and to help underpin subsequent connection offers. A detailed report or reports are provided as agreed and form a basis for the customer's final proposal.

B19 Deeds of Agreement Service

Services related to the acquisition of tenure over and access to Ausgrid assets associated with contestable connection works. New assets being connected to the network may be positioned on land not legally accessible to Ausgrid. To ensure Ausgrid has appropriate tenure and access to these new assets into the future, a Deed of Agreement is established in advance of connecting the new assets to facilitate the necessary execution of formal arrangements that create appropriate easement or lease arrangements to be registered on the land title deed.

Services provided in relation to obtaining deeds of agreement for property rights associated with contestable connection works, including processes associated with obtaining registered leases and easements for land on which Ausgrid assets are located (i.e. those assets assigned or "gifted" to Ausgrid on electrification). These property rights are necessary in order to ensure that the Ausgrid is able to carry out ongoing maintenance in relation to its assets. As Ausgrid often connect assets before registered leases or easements have been obtained, it is necessary to obtain deeds of agreement from landowners in the interim.

Appendix C: Metering Services and Metering related Ancillary Services

[Drafting note for the AER: This Appendix will be updated each year to reflect the prices approved by the AER for that year in accordance with Ausgrid's distribution determination for the 2014-2019 regulatory control period.]

Metering services

Metering Connection Charges

From 1 July 2015, the regulation of metering services provided by Ausgrid will change. As a result, a separate charge for the provision of new and upgraded meters will apply.

The charge will be levied when the ASP2 notifies Ausgrid that a meter has been installed or changed. The charge will reflect the type of meter that has been provided by Ausgrid. We consider this charge forms part of the connection charges and therefore forms part of this connection policy. The charge is called a new or upgraded metering charge.

Other charges associated with other meter services such as meter maintenance, meter data services, meter reading and meter replacement are not connection charges as they are part of the ongoing service that Ausgrid provides.

Table 3: New or upgraded metering charges

Meter Code	Description	Fee per Meter
B1	Single Phase Single Element Two Wire Direct Connected Accumulation Watt-hour Meter	A1.
B3	Three Phase Single Element Four Wire Direct Connected Accumulation Watt-hour Meter	
E1	Single Phase Single Element Two Wire Direct Connected Interval Watt-hour Meter	
E2	Single Phase Dual Element Two Wire Direct Connected Interval Watt-hour Meter	
E3	Three Phase Single Element Four Wire Direct Connected Interval Watt-hour Meter	
E4	Three Phase Single Element CT Connected Interval Watt-hour Meter	

Prices are inclusive of GST

Metering related Ancillary services

Table 4: Metering Ancillary Services required for Connection

C1 Franchise CT Meter Install	
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C1 Franchise CT meter install

Ausgrid is responsible for Type 5 and 6 metering installations connected to Ausgrid's network and must provide and install rule compliant metering for any new current transformer or current and voltage transformer installations.

Table 5: Metering Ancillary Services after connection

C2 Special Meter Reading Type 5 and Type 6 Meters	
C3 Testing Type 5 and 6 Meters	
C4 Replacement or Removal of Type 5 or Type 6 Meter instigated by a Customer switching to a non-type 5 or 6 meter that is not covered by another fee.	
C5 Request for Customer Energy Consumption Data, Tariff or Distribution Information.	
C6 Emergency maintenance of failed metering equipment not owned by Ausgrid	
C7 Controlled Load Conversion	
C8 Network Tariff Change Request	

Prices are inclusive of GST

C2 Special Meter Reading

This service has the same meaning as the meaning given to the expression 'special meter reading' in the AEMO Metrology Procedure: Part A National Electricity Market.

Ausgrid may be notified to conduct this service via the use of the 'Special Read' B2B service order. It excludes any special meter reading of metering installation types 1 to 4, which is an unregulated distribution service, but subject to a 'light-handed' form of control under Independent Pricing and Regulatory Tribunal of NSW (IPART) Rule 2004/1 Regulation of Excluded Distribution Services; and applies in each of the following circumstances:

- where a customer or a retail supplier requests Ausgrid to undertake a special meter read, (but does not apply where the special meter read was requested solely to verify the accuracy of a scheduled meter read and the special meter read reveals that the scheduled meter read was inaccurate or in error); or
- where Ausgrid attends at a customer's premises for the sole purpose of discharging Ausgrid's obligation to read the customer's meter within the period specified by law (but not where Ausgrid merely chooses to read the customer's meter without being under a legal obligation to do so) and on attending the customer's premises Ausgrid is unable (through no act or omission of Ausgrid), to gain access to the meter; or

- where Ausgrid and the customer agree on an appointed time at which Ausgrid may attend the customer's premises to enable Ausgrid to discharge Ausgrid's legal obligation referred to in the above paragraph and when Ausgrid attended at the customer's premises at the appointed time Ausgrid (through no act or omission of Ausgrid), was unable to gain access to the customer's meter.

A charge will not be levied for this service ('special meter reading') in either of the following circumstances:

- where the customer is or is about to move premises; or
- where the service reveals that a scheduled meter reading was inaccurate, (as outlined above).

C3 Testing for type 5 and 6 meter.

The testing of an Ausgrid meter in accordance with AEMO Metrology Procedure: Part A National Electricity Market. Ausgrid may be notified to conduct this service via the use of the 'Meter Investigation' sub type ' Meter Test' B2B service order. It excludes metering installation types 1 to 4, the testing of which is an unregulated distribution service, but subject to a 'light-handed form of control under IPART Rule 2004/1 Regulation of Excluded Distribution Services.

If the meter test is undertaken on premises serviced by more than one meter associated with the NMI the following applies:

- if the meter test reveals that all of the meters associated with the NMI are operating satisfactorily, Ausgrid will only levy one charge for the provision of the service; and
- if the meter test reveals that one or more of the meters associated with the NMI are not operating satisfactorily, Ausgrid will not levy any charge for the provision of the service.

Test results will be provided to the party requesting the meter tests in a standard Ausgrid format.

C4 Replacement or removal of a type 5 or 6 meter instigated by a customer switching to a non-type 5 or 6 meter that is not covered by any other fee.

Service falls under National Measurement Institute Pattern approval. Note this fee will not be charged if it is for a new NMI as that is covered by the Site Establishment Fee.

Customer or Retailer instigated meter change from Type 4 to Type 5 or Type 6. This includes meter issue, installation by Ausgrid, meter logistics, asset tracking, disposal or refurbishment of meter (under National Measurement Institute Pattern Approval and Verification requirements). This fee will be levied once Ausgrid has installed the new metering and charged to the Retailer.

Note this fee will not be charged if it is for a new NMI (because that is covered by the Site Establishment Fee)..

C5 Request for Customer Energy Consumption Data, Tariff or Distribution Information.

The provision of information of the customer's energy consumption or distributor charges following the request from a Retailer or a Retailer's customer. The energy data will be provided to the Retailer's customer or Retailer in standard market formats.

This fee may only be levied where information is requested more than once in a 12 month period.

C6 Emergency maintenance of failed metering equipment not owned by Ausgrid

This fee will be levied against the retailer where Ausgrid has been called out by the customer due to a power outage where an external metering providers metering equipment has failed and Ausgrid has had to restore power to the customer's premises. This may result in an unmetered supply arrangement at the site.

The retailer and metering provider will be notified by Ausgrid within 2 business days to arrange a repair by the metering provider.

C7 Controlled Load Conversion

The alteration of the off-peak metering equipment at a customer's premises for the purpose of changing the hours of the metering equipment's operation. A charge for this service may be levied for each occasion that the service is provided.

Ausgrid may be notified to conduct this service via the use of the 'Meter reconfiguration' sub type ' Change Controlled Load' B2B service order.

C8 Network Tariff Change Request

When a Retailer's customer or Retailer requests an alteration to an existing network tariff (for example, a change from an Inclining Block Tariff or Time of Use tariff to a capacity tariff), Ausgrid conducts tariff and load analysis to determine whether the customer meets the relevant tariff criteria. Ausgrid also processes changes in Ausgrid's IT systems to reflect the tariff change.

This fee will only be levied if after analysis Ausgrid determines that the customer is not eligible for the requested change in network tariff.

Ausgrid is usually notified to conduct this service via the use of the 'Meter Reconfiguration' sub type 'Change Tariff' B2B service order or via the application form in Ausgrid's document ES7 - Application of Network Use of System Charges.

Appendix D: Miscellaneous Ancillary Services

[Drafting note for the AER: This Appendix will be updated each year to reflect the prices approved by the AER for that year in accordance with Ausgrid's distribution determination for the 2014-2019 regulatory control period.]

Table 1: Miscellaneous services

Service Name	Service Description	\$
D1 Authorisation	Authorisation of ASPs Level 1 ASP Level 2 ASP	
D2 Conveyancing Information	Supply of Conveyancing information - desk inquiry Supply of Conveyancing information – field visit	
D3 Disconnection / Reconnection	Disconnection visit, acceptable payment received. Disconnection at Meter Box (non technical) Disconnection at Meter Box (technical) Disconnection at Pole Top / Pillar Box Disconnection at Pole Top / Pillar Box (site visit only) Disconnection / Reconnection outside normal business hours	
D4 Rectification Works	Rectification of illegal connection (fixed fee) Provision of Service Crew (per crew , hourly rate) Fitting of Tiger Tails (Job specific , hourly rate) High Load Escorts (Job Specific, hourly rate)	
D5 Temporary Power	Install and Remove high voltage live line links, Fixed fee Break and remake high voltage bonds, Fixed fee Break and remake low voltage bonds, Fixed fee Connect and Disconnect Motor Generator to overhead mains, Fixed fee Connect and Disconnect Motor Generator to low voltage board in a kiosk, Fixed fee	
D6 Investigate and Review ASP connection works	Hourly rate per investigation	
D7 Debt Recovery	Recovery of dishonoured payments.	
D8 Retailer of Last Resort Events	Services provided if a retailer of last resort event occurs.	
D9 Attendance at Customers Premises – Access Prevented	Fee per occurrence	

D10 Vacant Property Reconnection or Disconnect.	Fee per occurrence. Includes customer requests for ad-hoc reconnections or disconnections for regular but short periods of time, for example, holiday homes.	
	NonTechnical disconnect	
	Site Visit Only	
D11 Move In / Move Out Meter Read	Includes customer request for ad-hoc reconnections/disconnections for regular but short periods of time, for example holiday homes.	

D1 Authorisation of ASPs

The annual authorisation by Ausgrid of individual employees or sub-contractors of an ASP to carry out work on or near a Ausgrid's distribution and subtransmission system.

This may include without limitation:

- Familiarisation and training in Ausgrid's safety rules;
- Access Permit Recipient training and assessment;
- Induction in the unique aspects of the network;
- Verification that the applicant has undertaken the necessary Regulatory safety training (resuscitation etc) within the last 12 months;
- Conducting interviews and examinations and in-field safety audit;
- Issuing authorisation cards;
- Administration support directly related to Authorisation;

D2 Supply of Conveyancing Information

Desk Inquiry

The provision of information regarding the availability of supply, presence of Ausgrid's equipment, power lines and like information for property conveyancing purposes undertaken without any physical inspection of a site, other than the provision of information or the answering of inquiries relating to any matter under Government Information (Public Access) (GIPA) legislation.

Field Visit

The provision of information regarding the availability of supply, presence of Ausgrid's equipment, power lines and like information for property conveyancing purposes undertaken solely by a physical inspection of a site, other than the provision of information or the answering of inquiries relating to any matter under GIPA legislation.

D3 Disconnection / Reconnection

Disconnection visit (Acceptable Payment Received)

A site visit to a customer's premises for the purpose of disconnecting the customer's supply at the request of a Retailer based on the customer's breach of a Customer Supply Contract or for breach of Ausgrid's Customer Connection Contract. Disconnection does not occur on that occasion, as customer payment is made or a wasted visit.

Disconnection may not occur due to a number of reasons such as but not limited to the following:

- Customer has paid retail bill;
- Breach of customer connection contract has been rectified;

- Unable to access main switch board or metering;
- Safety of Installation or Ausgrid's employee;
- Late cancellation by Retailer;
- Change of customer or Retailer for the NMI.

Ausgrid is usually notified to conduct this service via the use of the 'De-energisation' B2B service order with sub type 'Remove Fuse (Non Payment)..

Disconnection at Meter Box (non technical)

At the request of the Retailer, a site visit to a customer's premises to disconnect the supply of electricity to a customer for breach by the customer of their customer supply contract or for a breach of Ausgrid's customer connection contract, or where a Retail supplier has requested that the supply to the customer be disconnected.

The disconnection method will be at Ausgrid's discretion and will involve one of the following methods:

- rotate plug in meter; or
- removal of the service fuses; or
- removal of barge board fuses; or
- turn off and sticker covering main switch.

This charge includes the reconnection at the request of the retailer.

If, following a request from a retailer, the reconnection component of this service is provided outside the hours of 7.30am and 4.00pm on a working day, the additional 'Reconnection outside normal business hours' charge, will apply.

Ausgrid is usually notified to conduct this service via the use of the 'De-energisation' B2B service order with sub type 'Remove Fuse (Non Payment)..

Disconnection at Meter Box (technical)

At the request of the Retailer, a site visit to a customer's premises to disconnect the supply of electricity to a customer for breach by the customer of their customer supply contract or for a breach of Ausgrid's customer connection contract, or where a Retail supplier has requested that the supply to the customer be disconnected.

The disconnection method will be at Ausgrid's discretion and will involve a method not identified above (e.g. pull load tail out of meter).

This charge includes the reconnection at the request of the retailer.

If, following a request from a retailer the reconnection component of this service is provided outside the hours of 7.30am and 4.00pm on a working day, the additional 'Reconnection outside normal business hours' charge, will apply.

Ausgrid is usually notified to conduct this service via the use of the 'De-energisation' B2B service order with sub type 'Remove Fuse (Non Payment)', 'Remove Fuse', 'Sticker' or subtype not specified.

Disconnection at Pole Top / Pillar Box

A site visit to a customer's premises to disconnect the supply of electricity to a customer at the pole top or pillar box for breach by the customer of their customer supply contract or for a breach of Ausgrid's customer connection contract, or where a Retailer supplier has requested that the supply to a customer be disconnected, where the customer has denied access to the meter or had prior to the visit, reconnected supply without authorisation by Ausgrid following a previous disconnection.

This charge includes the reconnection at the request of the retailer.

If following a request from a retailer the reconnection component of this service is provided outside the hours of 7.30am and 4.00pm on a working day, the additional 'Reconnection outside normal business hours' charge, will apply.

Ausgrid is may be notified to conduct this service via the use of the 'De-energisation' B2B service order with sub type 'Pillar-Box, Pit or Pole-Top' or 'Pillar-Box, Pit or Pole-Top (Non Payment)'.

Disconnection at Pole Top / Pillar Box (Site Visit Only)

A site visit to a customer's premises to disconnect the supply of electricity to a customer at the pole top or pillar box for breach by the customer of their customer supply contract or for a breach of Ausgrid's customer connection contract, or where a Retailer supplier has requested that the supply to a customer be disconnected, where the customer has denied access to the meter or had prior to the visit, reconnected

supply without authorisation by Ausgrid following a previous disconnection. Disconnection does not occur on that occasion, as customer payment is made or a wasted visit.

Disconnection may not occur due to a number of reasons such as but not limited to the following:

- Customer has paid retail bill;
- Breach of customer connection contract has been rectified;
- Safety of Installation or Ausgrid's employee;
- Late cancellation by Retailer;
- Change of customer or Retailer for the NMI.

Ausgrid may be notified to conduct this service via the use of the 'De-energisation' B2B service order with sub type 'Pillar-Box, Pit or Pole-Top' or 'Pillar-Box, Pit or Pole-Top (Non Payment)'.

Disconnections or Reconnections Out of Hours

At the request of the Retailer:

1. The provision of the re-connection component of either a 'De-energisation' sub type 'Remove Fuse (Non-Payment) or Pillar-Box Pit or Pole-Top (Non-Payment)' B2B service order', carried out, outside the hours of 7.30am and 4.00pm on a working day, or
2. the connection of electricity to a new customer outside the hours of 7:30am and 4:00pm on a working day.

Ausgrid may be notified to conduct this service via the use of the 'Re-energisation' B2B service order.

D4 Rectification of Illegal Connection

Work undertaken by Ausgrid to its property or the property of another person in order to:

- rectify damage; or
- prevent injury to persons or property,

resulting from conduct that constitutes an offence under Part 6, Division 1 of the Electricity Supply Act 1995 (NSW). For example, to rectify an unauthorised connection to Ausgrid's distribution system.

Note, the supply would be left disconnected until the customer employed their own electrical contractor/ASP to rectify any faulty wiring or equipment which had been interfered with e.g. full replacement of consumer's mains.

Additional crew:

Provision of additional work crew as a customer's request.

Fitting of tiger tail:

Installation of temporary covering (known as 'torapoli pipes' or 'tiger tails') on overhead mains and service lines. Note: Price will also include a rental charge for the use of equipment temporarily installed. NB This does not include the installation of temporary covers by certain ASPs in association with their contestable work, in accordance with their Service Provider Authorisation, which is contestable work.

High load escorts:

Temporary relocation of Ausgrid overhead mains for high vehicle loads and high load escorts.

D5 Temporary Power

The provision of temporary supply using an MG (Motor Generator) connected to the network or a direct distributor and/or use of HV Live Line Techniques when required to maintain a continued but temporary supply to otherwise impacted customers during contestable connection works. Service is in conjunction with but in addition to access permits and clearance to work.

Cost of MG hire not included as these are commercially available. Note also no allowance for Ausgrid to supply an MG standby technician if required.

D6 Investigate and Review ASP Connection Works

The investigation, review and implementation of remedial actions associated with contestable connection works, leading to corrective and disciplinary action against an ASP due to unsafe practices, substandard workmanship or other serious circumstances.

D7 Debt Recovery

Ausgrid currently incurs costs, including bank fees when a network customer's or ASP's cheque for the payment of network-related services is dishonoured.

D8 Retailer of Last Resort Services

The NSW distributors may be required to perform a number of services as a distributor when a ROLR event occurs including: -

Preparing lists of affected sites, and reconciling data with AEMO listings; handling in-flight transfers; identifying open service orders raised by the failed retailer and determining actions to be taken in relation to those service orders; arranging estimate reads for the date of the ROLR event and providing data for final NUOS bills in relation to affected customers; preparing final invoices for NUOS and miscellaneous charges for affected customers; preparing final debt statements; extracting customer data, providing it to the ROLR and handling subsequent enquiries; handling adjustments that arise from the use of estimate reads; assisting the retailer with the provision of network tariffs to be applied and the customer move in process; administration of any 'ROLR cost recovery scheme distributor payment determination'.

ROLR Event Details.

Services provided in relation to a Retailer of Last Resort (RoLR) event per NMI. Ausgrid is required to perform a number of services as a DNSP when a RoLR event occurs. These include:

- preparing lists of affected sites, and reconciling data with AEMO listings;
- handling in-flight transfers;
- identifying open service orders raised by the failed Retailer and determining actions to be taken in relation to those service orders;
- arranging estimate reads for the date of the RoLR event and providing data for final NUoS bills in relation to affected customers;
- preparing final invoices for NUoS and miscellaneous charges for affected customers;
- preparing final debt statements;
- extracting customer data, providing it to the RoLR and handling subsequent enquiries;
- handling adjustments that arise from the use of estimate reads;
- assist the Retailer with the provision of network tariffs to be applied and the customer move in process.

D9 Attendance at Customers Premises – Access Prevented

A follow up attendance at customers' premises to perform a statutory right where access was prevented or declined by the customer on the initial visit.

This task normally involves a meter technician returning to a customer's premises to undertake a service for a second time due to customer dissent during previous visits.

D10 Vacant Property Disconnection and Reconnection

Non Technical

At the request of the Retailer, a site visit to a customer's premises to disconnect or reconnect the supply of electricity due to:

- a vacant premises; or
- a site where the power is on.

At the request of the customer a site visit to the customer's premises to disconnect or reconnect the supply of electricity.

This charge includes the reconnection at the request of the retailer.

If, following a request from a retailer, the reconnection component of this service is provided outside the hours of 7.30am and 4.00pm on a working day, the additional 'Reconnection outside normal business hours' charge, will apply.

The disconnection/reconnection method will be at Ausgrid's discretion and will involve one of the following methods:

- rotate plug in meter; or
- removal of the service fuses; or
- removal of barge board fuses; or
- turn off and sticker covering main switch.

Ausgrid may be notified to conduct this service from the retailer via the use of the 'De-energisation' B2B service order with sub type 'Sticker', 'Remove fuse' or subtype not specified.

Site Visit Only

At the request of the Retailer, a site visit to a customer's premises to disconnect or reconnect the supply of electricity due to:

- a vacant premises; or
- a site where the power is on.

At the request of the customer a site visit to the customers premises to disconnect or reconnect the supply of electricity.

Disconnection does not occur on that occasion, as customer payment is made or a wasted visit.

Disconnection may not occur due to a number of reasons such as but not limited to the following:

- Unable to access main switch board or metering;
- Safety of Installation or Ausgrid's employee;
- Late cancellation by Retailer;
- Change of customer or Retailer for the NMI.

Ausgrid may be notified to conduct this service from the retailer via the use of the 'De-energisation' B2B service order with sub type 'Sticker', 'Remove fuse' or subtype not specified.

D11 Move in move out meter reads

B2B service orders from retailers to obtain a final read for customer move-outs or to obtain a start read where a customer is moving in to a site that has been vacant.

These services are additional to the special meter reading, disconnection/reconnection and testing services currently included as miscellaneous services.

For move in's, Ausgrid may be notified to conduct this service via the use of the 'Re-energisation' sub type 'New Reading Required, or Retrospective Move -in, or Subtype not specified' B2B service order.

For move out's, Ausgrid may be notified to conduct this service via the use of the 'Special Read' sub type 'Final Read' B2B service order or a 'De-energisation' sub type 'not specified' or 'sticker' or 'remove fuse' B2B service order.

Appendix E: Pioneer Schemes

In accordance with the AER Connection Charge Guidelines connection applicants may be required to make a contribution towards *connection works* that provide a connection to their premises and which were previously funded by another customer (within a 7 year period).

The contribution by a subsequent customer to works previously funded by the original customer will be based on the physical attribute of the asset or the demand of a subsequent customer as applicable.

For new connections less than 50kVA then a pre calculated refund will be used and this is based on length of distribution lines as well as a pre calculated share of any distribution substation.

For new connections over 50kVA then the refund will be based on the demand of the new customer.

Depreciation calculated in accordance with clause E5 will also be taken into account in determining the contribution payable.

Establishment and Administration of Schemes

A pioneer scheme will be established and administered in accordance with this Appendix in relation to each original customer's connection works (as defined in clause E2.1) of the same category. (For example, if the original customer's works included a distribution line and a substation, then one pioneer scheme will be established for the distribution line and a separate pioneer scheme will be established for the substation).

Ausgrid will bear the cost of establishing and administering the pioneer schemes.

E1 Contributions by Subsequent New Customers towards Connection Works

E2.1 General

Where:

- (a) a customer (the **original customer**) procures and funds, or becomes liable to procure and fund *connection works* (**original customer's works**); and
- (b) within 7 years of the date of the original customer's application for customer connection services with respect to the original customer's works (**refund period**), a new customer then requests customer connection services from Ausgrid; and
- (c) in order to provide those customer connection services to the new customer, Ausgrid will use all or any part of the original customer's works, then the new customer is liable, in addition to paying for any *connection works* for which that customer is liable, to pay Ausgrid a proportion of the costs of the original customer's works, calculated in accordance with clause E2.2 (**cost share refund**).

E2.2 Calculation of Cost Share Refund

- (a) Where the new customer's load (as specified in its application for customer connection services) is equal to or less than 50 kVA, the cost share refund will be the lesser of:
 - (i) the **pre-calculated refund** (see clause E2.3); and
 - (ii) the **original customer's outstanding amount** (see clause E2.5).
- (b) Where the new customer's load (as specified in its application for customer connection services) is greater than 50 kVA, the cost share refund will be the lesser of:
 - (i) the **pro-rata refund** (see clause E2.4); and
 - (ii) the **original customer's outstanding amount** (see clause E2.5).

E2.3 Pre-calculated Refund

The **pre-calculated refund** (for the purposes of E2.2(a)(i) above) is:

- (a) where the original customer's works are a distribution line, an amount calculated in accordance with the following formula:

$$\frac{\text{Cost of original customer's works} \times \text{Depreciation Factor}}{\text{Number of prospective new customers}} \times \frac{\text{Length of original customer's works used by the new customer (km)}}{\text{Total length of original customer's works (km)}} \times \frac{\text{CPI}(2)}{\text{CPI}(1)}$$

- (b) where the original customer's works are works other than a distribution line, an amount calculated in accordance with the following formula:

$$\frac{\text{Cost of original customer's works x Depreciation Factor}}{\text{Number of prospective new customers}} \times \frac{\text{CPI(2)}}{\text{CPI(1)}}$$

E2.4 Pro-rata Refund

The **pro-rata refund** (for the purposes of E2.2(b)(i) above) is an amount calculated in accordance with the following formula:

$$\frac{\text{Cost of original customer's works x Depreciation Factor}}{\text{New utilisation of original customer's works}} \times \frac{\text{Total utilisation of original customer's works}}{\text{CPI(2)}} \times \text{CPI(1)}$$

E2.5 Original Customer's Outstanding Amount

The **original customer's outstanding amount** (for the purposes of E2.2(a)(ii) and E2.2(b)(ii) above) is calculated as follows:

$$\frac{\text{Cost of original customer's works x Depreciation Factor}}{\text{Number of prospective new customers less original customer}} \times \frac{\text{Number of prospective new customers}}{\text{CPI(2)}} \times \text{CPI(1)}$$

less
total cost share refunds paid by new customers to Ausgrid in respect of those works as at date of new customer's application for customer connection services.

E2.6 Minimum Refund

Despite any other provision in this Appendix, a new customer is not liable to pay any cost share refund if the total amount payable to all customers already connected is less than \$1,000 plus CPI.

$$\$1000 + \text{CPI where } \text{CPI} = \text{CPI(2)} / \text{CPI(3)} \text{ (see Section D2.7)}$$

E2.7 CPI Adjustments

Despite any other provision in E2 of this appendix:

- (i) the formulas in E2.3, E2.4 and E2.5 are deemed not to include any references to CPI in the case where the beginning of the relevant period for the calculation of CPI(2) is less than 12 months after the end of the relevant period for the calculation of CPI(1); and
- (ii) the formula in E2.6 is deemed not to include any references to CPI in the case where the beginning of the relevant period for the calculation of CPI(2) is less than 12 months after the end of the relevant period for the calculation of CPI(3).

E2.8 Explanation of Terms in this Appendix

Cost of original customer's works means:

- (a) where Ausgrid carried out the original customer's works as an ASP, the actual cost of those works; and
- (b) where an ASP carried out the original customer's works, the estimated amount that Ausgrid would have charged to carry out those works.

CPI(1) means 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) means 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.

CPI(3) means the average of the consumer price indices (All Groups, All Capital Cities), published by the Australian Bureau of Statistics, for the previous 4 quarters in the 2013/2014 financial year.

New utilisation of original customer's works means:

- (a) where the original customer's works are a distribution line, a figure in kVA.km, representing the new customer's expected load, in kVA (as specified in its application for customer connection services), multiplied by the length of original customer's works used by the new customer, in km; and
- (b) where the original customer's works are works other than a distribution line, a figure in kVA, representing the new customer's expected load (as specified in its application for customer connection services).

Number of prospective new customers means the number of new customers (including the original customer) that Ausgrid expects, prior to construction of the original customer's works, will use those works or any part of them during the refund period, determined in consultation with the original customer, and taking into account all relevant factors including (but not limited to):

- the capability of the proposed works,
- the current number of properties that could potentially utilise those works,
- the current zoning of the area and any rezoning proposals,
- any proposed subdivisions or development applications, and
- historical patterns of customer connection in similar areas.

Total utilisation of original customer's works means:

- (a) where the original customer's works are a distribution line, a figure in kVA.km, representing the total of the loads of each customer (including the original customer and the new customer) who use or will use the original customer's works, in kVA (as specified in their respective applications for customer connection services), multiplied by the length of distribution line constituting the original customer's works, in km; and
- (b) where the original customer's works are works other than a distribution line, a figure in kVA, representing the total of the loads of each customer (including the original customer and the new customer) who use or will use the original customer's works (as specified in their respective applications for customer connection services).

E2 Refunds

- (1) Where a new customer pays to Ausgrid an amount under E2 of this appendix, Ausgrid will, as soon as practicable after receiving that amount, repay that amount to the then **current owner** of the premises to which the original customer's works were connected.
- (2) Where there are two or more customers constituting the original customer, as a result of Ausgrid requiring those customers to procure and fund their common works together, the repayment by Ausgrid referred to in E4(1) above must be divided between those customers in accordance with the proportions in which they funded the works.

E3 Obligation to Notify

- (1) Ausgrid will notify all new customers who apply to Ausgrid for customer connection services and who may be obliged to make refunds under an existing refund scheme, and all ASPs known to Ausgrid who are likely to have customers who will so apply, of the existence of the refund scheme and that connecting customers may be obliged to contribute towards refund.
- (2) Ausgrid will also notify original customers, to which a refund scheme applies, of the existence of the refund scheme and that they may be entitled to receive a refund.

E4 Depreciation Factor

A straight line depreciation, over a twenty year asset life, is to be applied to unadjusted values to determine the current day depreciated value of the asset.

The depreciation factor is determined as follows:

Deemed asset life (20 years – asset age) / (Deemed life (20 Years))

For example: Cost of line is \$12,000 and actual asset age is 2 years

Depreciation factor is $(20 - 2) / (20) = 0.9$

Depreciated asset value is $\$12,000 \times 0.9 = \$10,800$

Appendix F: Negotiated Connection Offer Hourly Rates.

Hourly rates for negotiation of a connection offer
(prices include GST)

Labour class	Normal time Hourly rate
Engineering Officer	\$241
Engineer	\$253
Senior Engineer	\$315