



DRAFT DECISION

Endeavour Energy Distribution Determination 2019 to 2024

Attachment 17 Connection Policy

November 2018

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Endeavour Energy for the 2019–24 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

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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
CCP 10	Consumer Challenge Panel, sub-panel 10
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance, a component of the previous DMIS
DMIAM	demand management innovation allowance mechanism
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for Electricity Distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules

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

17 Connection policy

We are required to approve a connection policy prepared by a distributor under the National Electricity Rules (NER).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. A connection policy:²

- must be consistent with:
 - the connection charge principles set out in chapter 5A of the NER
 - the connection policy requirements set out in part DA of chapter 6 of the NER
 - our connection charge guidelines published under chapter 5A³, and
- must detail:
 - the categories of persons that may be required to pay a connection charge and the circumstances in which such a requirement may be imposed
 - the aspects of a connection service for which a connection charge may be made
 - the basis on which connection charges are determined
 - the manner in which connection charges are to be paid (or equivalent consideration is to be given)
 - a threshold (based on capacity or any other measure identified in the connection charge guidelines) below which a retail customer (not being non-registered embedded generator or a real estate developer) will not be liable for a connection charge for an augmentation other than an extension.

The AER's connection charge guidelines for electricity retail customers

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

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

¹ NER, Part DA of chapter 6.

² NER, cl. 6.7A.1(b).

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

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

17.1 Draft decision

We do not approve Endeavour Energy's (Endeavour) connection policy because it does not contain the necessary information that is consistent with our connection charge guidelines. In particular, the proposed policy does not:

- specify the categories of persons that may be required to pay a connection charge
- clarify the conditions under which Endeavour will reimburse a connection applicant for connection work carried out by the applicant
- identify whether Endeavour will require a security fee for high risk developments.

17.2 Endeavour Energy's proposal

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

In its regulatory proposal, Endeavour stated that:⁵

Historically, Endeavour Energy funded the majority of connection costs with a contribution from developers for the customer service line and the low voltage cables...In recent years, the larger scale of developments has resulted in more 'upstream' shared assets being funded by connecting customers. This meant Endeavour Energy inadvertently shifted from a 'beneficiary' pays arrangement to a 'causer' pays in practice. This shift was brought to Endeavour's attention by stakeholders who questioned the funding arrangements and highlighted the inconsistency with national practice.

To bring practices in line with its original intent and the approach of the industry more broadly, we changed how it applied our contributions policy so that:

dedicated or customer specific assets are fully funded by the relevant customer – single end use large connections still fund almost all connection costs under this approach; and

assets that will provide current and/or future customers with supply or improve service or resilience are funded across our customer base in common with all other common service assets.

This is a return to a 'beneficiary' pays approach that we consider is more appropriate, particularly with an increase in 'two-way' energy flow with increasing penetration of embedded generation and battery storage.

⁴ Endeavour Energy, *Regulatory Proposal attachment 0.09 Connection Policy - January 2018*, April 2018.

⁵ Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, pp. 121–122, April 2018.

Endeavour acknowledged that several stakeholders expressed concerns about the impact of this change on DUOS prices for existing customers in the long-term. Endeavour proposed to retain its existing approach as the majority of its existing customers were connected on similar (or more favourable) terms. Endeavour stated it will continue to engage with the AER and stakeholders on this issue and will conduct a broader industry workshop with other NSW networks to review the approach to capital contributions within the NSW context.⁶

17.3 Stakeholder submissions

The Consumer Challenge Panel disagreed with Endeavour's proposed change to its capital contribution policy because of the following concerns:⁷

- The change to the policy had not been taken to the Endeavour [Energy] Consumer Consultative Committee (CCC) for discussion and endorsement prior to its enactment, casting some doubt as to the effectiveness and approach to the role of their CCC.
- Some [stakeholders] doubt that the change in policy, in requiring a reduced contribution by developers to the connection or electricity to new land subdivisions, will in fact be passed on in full to customers purchasing new blocks of land.
- The discussion that Endeavour, who present themselves as being an 'outlier' when compared to the proportion of developer contributions in other jurisdictions, are not a 'laggard' but actually a 'leader' in representing emerging expectations of energy customers.

On that basis, the justification for the change in the contributions policy and the demonstration that the connections process in Endeavour is becoming more efficient is rejected.

The CCP acknowledged that Endeavour supported further discussion with stakeholders on the matter of capital contributions.

⁶ Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024, Connection Policy*, April 2018, section 10.5.1, p. 122.

⁷ CCP 10, *Response to AER Issues paper and revenue proposals for NSW electricity distribution businesses 2019–24*, August 2018, p. 50.

17.4 AER's assessment approach

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

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

In addition, we also examined whether:

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

17.5 Reasons for draft decision

We have not approved Endeavour's proposed connection policy because it does not include all the information consistent with the connection charge principles in chapter 5A of the NER, and with our connection charge guidelines. Endeavour's proposed connection policy does not:

- specify the categories of persons that may be required to pay a connection charge
- clarify the conditions under which Endeavour will reimburse a connection applicant for connection work carried out by the applicant
- identify whether Endeavour will require a security fee for high risk developments.

Following our questions on the above issues, Endeavour proposed further improvements to the connection policy to provide more clarity to the document.⁸ We accepted most of the proposed improvements and amended the connection policy with minor changes.⁹

In addition, we consider that Endeavour's "beneficiary pays" approach to shift some of developers' connection cost to the general customer base needs adjustment.

We agree that if a developer's connection work content would also benefit existing customers, the existing customers should fund the proportion of the cost. However, where the new works will only benefit the specific new customer [the developer] and future new customers, existing customers should not fund such cost. Rather, the relevant first-mover developer should recover part of its original cost—if future developments use the network extensions funded by the first-mover developer—through the pioneer scheme provision under the connection policy. Having said this,

⁸ Endeavour Energy, *Response to AER information request IR#033*, 10 September 2018.

⁹ Clause 6.12.3(j)(2) provides that we may amend the proposed connection policy to the extent necessary to enable it to be approved in accordance with the Rules.

we acknowledge that, for upstream augmentation works, our connection charge guideline provides that the developer should only pay for its proportion of the cost.

Clause 6.1.10 of our connection charge guideline states that:

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

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

Note: The equalisation schemes historically applied in some jurisdictions are an example of an agreement which may satisfy this requirement.

17.6 AER approved connection policy

We have modified Endeavour’s proposed connection policy to reflect the above draft decision on this matter.¹⁰ This revised connection policy is appended to this chapter.

¹⁰ Rule 6.12.3(j)(2) provides that we may amend the proposed connection policy to the extent necessary to enable it to be approved in accordance with the Rules.

A AER approved connection policy for Endeavour Energy



CONNECTION POLICY

(showing amendments under the
AER's draft decision)

Provision of Connection Services

January 2018

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1.0 Introduction

1.1 Connection to our distribution system

If you are a Connection Applicant seeking to connect premises to our distribution system (or to alter an existing connection) then you may apply for a new connection (or connection alteration) under Chapter 5A of the National Electricity Rules (**NER**).

The services required to make a new connection or connection alteration are referred to as "Connection Services". We provide some Connection Services to you under Chapter 5A of the NER while other Connection Services, called "Contestable Services", are provided to you by an Accredited Service Provider (**ASP**) of your choice under the *Electricity Supply Act 1995* (NSW).

This document sets out the circumstances in which Endeavour Energy requires a Connection Applicant (a retail customer, real estate developer or non-registered embedded generator) to pay the cost of connecting their premises or development to the Endeavour Energy network. These costs are also known as Connection Charges for the provision of Connection Services under Chapter 5A of the NER. A Connection Charge can be an ancillary connection fee payable to Endeavour Energy for a service or a financial guarantee which may include property tenure, warranty maintenance or a guarantee of revenue, depending on the circumstances.

Fees and charges for Contestable Services are not payable to Endeavour Energy and therefore are not Connection Charges. The costs for contestable services are payable directly to the ASP and not specified in this document.

Endeavour Energy provides three types of connection offers under Chapter 5A of the NER (basic, standard and negotiated) and will make an offer to enter into a connection contract based on the information provided in the customer's initial application request.

1.1.1 Basic Connection Offer

Applicants wishing to permanently connect a typical low voltage load up to 100 amps single phase or 63 amps three phase in an urban area will be offered to connect under a LV basic connection service. These offers are typically applicable to single residential premises, small commercial premises and small multi-occupant developments. In rare cases, Endeavour Energy may need to carry out minimal extensions or augmentation works to the network in order to facilitate the connection. The costs for these works are funded by Endeavour Energy.

Applicants are required to fund contestable works associated with their premises connection assets and any ancillary network service fees associated with their connection.

Other types of low voltage connections - such as loads in non-urban locations or loads above 100 amps single phase or 63 amps three phase - may also be offered a LV basic connection service if it is assessed that the connection can be supported by the network without the need to extend or augment the network.

1.1.2 Standard Connection Offer

In cases where the non-urban or larger low voltage loads are assessed as needing augmentation or extension works to the network, the offer will be in the form of a standard connection service. 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.

Applicants are required to fund the contestable works associated with their premises connection assets and any dedicated network connection works. The customer must also pay for ancillary service fees, and may be required to provide financial guarantee which may include property tenure, warranty maintenance or a guarantee of revenue, depending on the circumstances associated with their connection. A pioneer scheme payment may also be required.

1.1.3 Negotiated Connection Offer

You can to negotiate your connection contract with us where the connection service being sought:

- is neither a basic connection service nor a standard connection service; or
- is a basic connection service or a standard connection service, but you elect to negotiate the terms and conditions on which the connection service is to be provided.

These customers may also be required to pay a negotiation fee to cover the expenses reasonably incurred by Endeavour Energy in assessing the customer's application and preparing a negotiated connection offer.

Section 6 of this policy provides more detail on connection offers and details of the process for establishing a connection can be found in our website www.endeavourenergy.com.au.

1.2 Purpose and scope of this document

The purpose of this document is to set out Connection Charges you must pay to us for Connection Services we provide under Chapter 5A of the NER, and how these Connection Charges are calculated. This is our Connection Policy for the purposes of Part DA of Chapter 6 of the NER.

This Connection Policy provides information about the Connection Services we provide, and how they interact with the Contestable Services provided by an ASP that you separately engage.

2.0 Connection Services provided by Endeavour Energy

The Connection Services we provide fall into two categories:

- (1) Endeavour Energy Provided Connection Works; and
- (2) Ancillary Network Services.

Under Chapter 5A of the NER, we are also entitled to charge you our costs incurred negotiating a negotiated connection contract and for site inspections. These charges are described in further detail in section 2.3.2 and 2.3.3 below.

2.1 Endeavour Energy Provided Connection Works

Endeavour Energy Provided Connection Works are connection works to be installed in order to service a development that is connected or to be connected to our network where at the time of receipt of an application for Connection Services, there is a reasonable likelihood that those works will be used by ~~other our existing~~ customers outside the development in the foreseeable future and as a result forms a shared network.

We do not charge you for Endeavour Energy Provided Connection Works at the time the new connection or connection alteration is made. We instead recover our costs for these works through general network charges levied on all customers connected to our network.

2.2 Ancillary Network Services

Ancillary Network Services are the main Connection Services we provide in respect of new connections and connection alterations. They cover our interactions with ASPs to ensure that the Contestable Services they perform meet appropriate design and technical requirements to be connected to and form part of our network.

Some of the Ancillary Network Services we provide in relation to new connections and connection alterations are:

- Design related services
- Connection application related services
- Inspection and re-inspection services
- Access permits, oversight and facilitation
- Notices of arrangement and completion notices
- Contestable network commissioning and decommissioning
- Termination of cable at zone substation – distributor required performance for safety reasons
- Site establishment services
- Network safety services

Each of these services is more fully described in Appendix 1 attached. A full list and description of Ancillary Network Services we provide can be found in the Ancillary Network Services, Network Price List available on our website.

Connection Charges Payable and Basis for Charges

You must pay us Connection Charges for Ancillary Network Services if you enter into a Connection Contract with us.

The Connection Charges for Ancillary Network Services have been set by the Australian Energy Regulator under its Distribution Determination for Endeavour Energy and are set out in our Ancillary Network Services, Network Price List available on our website.

2.3 Connection Negotiation and Site Inspection Fees under Chapter 5A of the NER

2.3.1 Chapter 5A NER Fees

In accordance with Chapter 5A of the NER, we may charge two additional fees as outlined below. These charges relate to clause 5A.D.4 *Site inspection* and clause 5A.C.4 *Fee to cover cost of negotiation*, of Chapter 5A of the NER.

2.3.2 Site Inspection fee

No allowance has been made in our published fee structure for a site visit. If you request a site visit by our staff, additional charges may apply based on the estimated time involved. All time involved in the site visit will be charged at the hourly rates set out in the Ancillary Network Services, Network Price List.

2.3.3 Negotiation Fee

If you choose to negotiate our connection offer, or if a basic or standard connection offer is not applicable, we will charge you a reasonable fee to cover expenses directly and reasonably incurred by us in assessing your application and making a connection offer. We will recover this fee as a debt (whether or not you accept the connection offer). This fee will be calculated by multiplying the number of hours spent in assessing the application, preparing estimates associated with negotiation and making the connection offer charged at the hourly rates set out in the Ancillary Network Services, Network Price List.

2.4 Financial Guarantees (Security Fee)

In accordance with Chapters 5A and 6 of the NER, Endeavour Energy will require a customer to provide a financial guarantee (also known as a Security Fee) or Guarantee of Revenue (GoR), where their connection requires substantial Endeavour Energy funded connection works that is initially only for the customer's benefit, and where Endeavour Energy considers there is a high risk that Endeavour Energy may not earn the estimated incremental revenue from the construction works.

A GoR is a legally binding agreement between Endeavour Energy and the connection applicant where the connection applicant guarantees to pay Endeavour Energy 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 five years, although this can be varied

between five 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 Endeavour Energy incurred by funding the connection works.

The security amount under the GoR will be calculated by reference to the incremental revenue that Endeavour Energy expects to receive from the Endeavour Energy funded connection works.

The security amount will not be greater than the amount of estimated incremental revenue which Endeavour Energy assesses as having a high risk of not being recovered. The GoR will be established prior to certification of the design and prior to the Endeavour Energy funded works being approved. This will allow the network 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 Endeavour Energy. Endeavour Energy 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.

3.0 Contestable Services provided by ASPs

The *Electricity Supply Act 1995* (NSW) allows customers to choose an Accredited Services Provider (ASP) to provide some Connection Services – these are known as Contestable Services.

All Contestable Services must be carried out by an ASP, accredited under Part 3 of the *Electricity Supply (Safety and Network Management) Regulation 2014* and appropriately authorised by us when working on or near the existing network.

Contestable Services must be performed by your ASP in accordance with our design, construction and installation standards. You and your ASP must comply with the *Service and Installation Rules of NSW*.

The ASP scheme is administered by the NSW Department of Planning and Environment, Resources and Energy Division. The ASP scheme allows ASPs to carry out design, construction and installation works required to make a new connection or connection alteration. The Department accredits the company, and it is then the company's responsibility for employing/sub-contracting suitably qualified, experienced and authorised (where required) personnel.

The three levels of ASP are:

- Level 1 – Network Constructor
- Level 2 – Service Mains Constructor
- Level 3 – Designer

You must choose and engage the ASP(s) required and ensure that they carry out the Contestable Services. You are liable to the ASP(s) directly for their charges in carrying out those Contestable Services.

Charges for Contestable Services are not specified in this Connection Policy and it is your responsibility to be aware of all the likely costs that are associated with the services. Endeavour Energy does not provide Contestable Services.

We list below some of the activities that may constitute Contestable Services which the ASP you engage may charge you for:

- Environmental Impact Assessment preparation charge
- Design quotation
- Re-design quotation
- Construction quotation
- Connection quotation (to connect a customer to the distribution network)
- Project definition cost
- Work outside the normal working hours (6:00am to 6:00pm)

- Switching fees
- Hiring and connection of generators

4.0 Payment Terms for our Connection Charges

Connection Charges payable to us in respect of the Connection Services we provide can be charged to you, your electrical professionals (such as your ASP or electrical contractor) or your retailer depending on the service provided and circumstances.

All cheques and guarantees must be made out to Endeavour Energy.

All fees and charges are to be paid in advance of the relevant activity in accordance with clause 9 of the AER Connection Charge Guidelines for Electricity Retail Customers.

Subject to regulatory approval, we may amend the fees and charges set out in the Ancillary Network Services, Network Price List from time to time by publishing the changes on the Endeavour Energy website.

You should be aware of the cost implications associated with any proposed connection to the Endeavour Energy network. You should not commit to expenditure for a proposal that may prove to be impractical and not affordable.

For large or complex developments, we recommend that you lodge a technical review request with us to determine availability of supply and preferred linkage points and to provide preliminary information to assist you in determining the feasibility of your proposals.

For obtaining electricity supply to a property in a rural location, we provide a free “order of costs estimating” service. The contacts for the Regional Services Manager and their telephone numbers are:

Northern region – (02) 9853 7639

For properties in Baulkham Hills, Blacktown, Blue Mountains, Hawkesbury, Holroyd, Hornsby, Lithgow, Parramatta, Penrith and Rylstone local government areas.

Central region – (02) 9853 5628

For properties in Camden, Campbelltown, Fairfield, Liverpool, Wingecarribee and Wollondilly local government areas.

Southern region – (02) 4255 4022

For properties in Kiama, Shellharbour, Shoalhaven and Wollongong local government areas.

4.1 Reimbursement for work carried out on behalf of Endeavour Energy

You are responsible for all costs associated with the connection of electricity supply to a development.

Endeavour Energy may request you to undertake augmentation works additional to meet the requirements to supply your development, on behalf of Endeavour Energy. When this situation occurs, Endeavour Energy will pay your ASP for the additional works required by us. This situation will only occur where:

- it is economic to combine the new augmentation works associated with the new connection and other Endeavour Energy required works
- the additional augmentation works required by Endeavour Energy are necessary to meet the needs of our existing customers because there is a reasonable likelihood that the additional augmentation works will be used by our existing customers outside the development in the foreseeable future.

Where you have carried out work on our behalf, you will be reimbursed in accordance with the reimbursement rates set at the time of design certification.

Payment will be made to you or your nominee after:

- satisfactory completion of the works;
- payment of all fees and charges;
- receipt of all the relevant documentation for the issue of a letter of acceptance; and
- receipt of a tax invoice claiming the reimbursement.

Written permission noted on the letter of intent is required from you to reimburse other parties.

4.2 Alterations to existing electricity networks

If you modify the development in a way that impacts the outcomes proposed by the certified electricity network construction drawings after they have been submitted for certification, we will not be liable for payment of reimbursements related to all of the works in question. We may charge you additional costs we incur as a result of modifications to a development, including all costs associated with the re-certification of the electricity network construction drawings.

5.0 Pioneer Scheme

A Pioneer Scheme may apply under the AER's Connection Charge Guidelines and Part E of Chapter 5A for customers who have funded their own connection or network augmentations works where these will be used by another customer to connect to Endeavour Energy's network within seven years of the original connection. Customers who fund Extension or Augmentation assets are eligible to be reimbursed a proportion of their costs when subsequent customers connect to the Extension or Augmentation assets that they funded. We may recover a refund amount from any subsequent customer as a part of the Connection Charges payable by the subsequent customers to us.

Each scheme applies for seven years from the date of the construction or installation of the Extension or Augmentation assets for the exclusive use of the original customer. If your new connection or connection alteration will use assets that are subject to an existing Pioneer Scheme, we will tell you at that time. If your new connection or connection alteration requires the construction or installation of Extension or Augmentation assets for your exclusive use, those assets may be subject to a Pioneer Scheme.

If the Extension or Augmentation assets were constructed to a higher standard or capacity than the least cost technically acceptable standard required by Endeavour Energy, then only the cost of constructing the Extension or Augmentation assets to the scope standard required by Endeavour Energy will be included in the Pioneer Scheme.

Endeavour Energy reimburses the current owners of connection assets subject to a Pioneer Scheme after collecting the amount to be reimbursed from subsequent customers connecting to those assets.

5.1 Establishment and administration of schemes

Endeavour Energy establishes and administers Pioneer Schemes for each original customer's works as described below.

Original customer's works refers to the value of network assets procured or funded by an original customer, either as new works or augmentation works and that are dedicated to the exclusive use of the customer at the time of their construction or installation.

The Pioneer Scheme recognises different categories of assets for the purpose of calculating reimbursements from future customers utilising those assets. For example, if the original customer's

works included a distribution line and a substation then the costs and details of the distribution line and substation will be recorded separately.

Endeavour Energy will bear the costs of establishing and administering Pioneer Schemes.

5.2 Contributions by further new customers towards Connection Assets

A Pioneer Scheme will apply where:

- an original customer is required to fund Extension or Augmentation assets to make a new connection or connection alteration that they have requested;
- within seven years of the date of construction or installation of the original customer's works, a subsequent customer requests a new connection or connection alteration; and
- in order to make the new connection or connection alteration, we will use all or any part of the Original Customer's works.

The Connection Charges that the subsequent customer must pay to us will include a proportion of the cost of the original customer's works, calculated in accordance with the cost share reimbursement calculations described in section 5.3 below. Endeavour Energy will reimburse the current owners of premises connected to the original customer's Connection Assets after receiving the reimbursement amount from the subsequent customer.

Note: If the original customer qualified as a large load customer, they will only receive reimbursements from subsequent large load customers. The large load calculation for the subsequent customer will be carried out with respect to the rating of the original asset that was installed or augmented to make the new connection or connection alteration for the original customer.

5.3 Cost share reimbursement calculations

The cost share reimbursement shall be calculated as follows:

- Where the subsequent customer's load (as specified in its application for Connection Services or assessed load) is equal to or less than 50 kVA, the cost share reimbursement will be the lesser of
 - the pre-calculated reimbursement; or
 - the original customer's outstanding amount.
- Where the subsequent customer's load (as specified in its application for customer connection services or assessed load) is greater than 50 kVA, the cost share reimbursement will be the lesser of the pro-rata reimbursement and the original customer's outstanding amount.

The pre-calculated reimbursement is calculated:

Where the original customer's works are distribution line, an amount is calculated in accordance with the following formula:

Cost of original customer's works x Depreciation Factor

Number of prospective subsequent customers + original customer

X

Length of original customer's works used by subsequent customer (km) X

Total length of original customer's works (km)

CPI(2)

CPI(1)

Where the original customer’s works are works other than distribution line, an amount is calculated in accordance with the following formula:

Cost of original customer’s works x Depreciation Factor

X

Number of prospective subsequent customers + original customer

The original customer’s outstanding amount is to be calculated as follows:

Cost of original customer's works x Depreciation Factor

X

Number of prospective new customers less original customer

X

Number of prospective subsequent customers + original customer

LESS

The total cost share reimbursements paid to date by subsequent customers to Endeavour Energy in respect of those assets as at the date of the subsequent customer's application for Connection Services.¹

Cost of original customer's works is:

The value of the works calculated from the Endeavour Energy’s asset valuation supplied as part of the certification package where an ASP carried out the original customer’s works.

Number of prospective subsequent customers is:

The effective number of subsequent customers, including the original customer, that may use the assets or any part of them during the seven years after they were constructed or installed.

This is determined in consultation with the original customer prior to construction of the proposed original customer’s works, 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 assets, the current zoning of the area and any re-zoning proposals, any proposed subdivisions or development applications, and historical patterns of customer connection in similar areas.

Depreciation Factor is:

A straight line depreciation, over a twenty year asset life, 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 asset life (20 years)

For example:

¹ Where this calculation results in a negative number it will be assumed to be zero for the purposes of reimbursements.

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 $\$12,000 \times 0.9$
 $= \$10,800$

5.4 The pro-rata reimbursement

The pro-rata reimbursement is an amount calculated in accordance with the following formula:

Cost of original customer's works

X

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

New utilisation of original customer's amount is:

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

Total utilisation of original customer's works is:

- (a) where the original customer's works are distribution lines, a figure in kVA km, representing the total of the loads of each customer (including the original customer and the subsequent customer) who use or will use the original customer's works, in kVA (as specified in their respective applications for 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 assets other than distribution lines, a figure in kVA, representing the total of the loads of each customer (including the original customer and the subsequent customer) who use or will use the original customer's works (as specified in their respective applications for Connection Services).

5.5 Minimum reimbursement

Despite any other cost share reimbursement calculations a subsequent customer is not liable to pay any cost share reimbursement to all existing customers if the total reimbursement amount is less than:

$$\frac{\$1000 \times \text{CPI(2)}}{\text{CPI(3)}}$$

5.6 CPI adjustment

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 Connection Assets the subject of a Pioneer Scheme were 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 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 4 quarters ending 30th June 2012.

Despite any other cost share reimbursement calculations:

- (i) The pre-calculated reimbursement, the pro-rata reimbursement and the original customer's outstanding amount 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);
- (ii) The minimum reimbursement 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); and
- (iii) in the event that all the relevant information to calculate CPI(2) has not been published by the Australian Bureau of Statistics at the time of a subsequent customer's application for Connection Services then the most recent available rates will be used, (i.e. the rates applicable to the previous quarter).

5.7 Reimbursement payments

Where a subsequent customer pays to us an amount towards a Pioneer Scheme, we will, as soon as practicable after receiving that amount, repay that amount to the then current owners of premises connected to the original customer's Extension or Augmentation assets the subject of that Pioneer Scheme.

Where there are multiple original customers because we required those customers to jointly procure and fund the construction or installation of Extension or Augmentation assets, the repayment by us pursuant to reimbursement payments must be divided between those customers in accordance with the proportions in which they funded the Extension or Augmentation assets.

5.8 Obligation to notify

We will notify all new customers, or their representatives, who apply to us for Connection Services and who may be required to make reimbursements under an existing Pioneer Scheme.

When a new customer seeks a new connection or connection alteration that will connect to assets subject to a Pioneer Scheme, we will notify the current owners of premises connected to those assets that they may be entitled to receive a reimbursement.

5.9 Subdivisions and multi-occupant developments

If a proposed subdivision is undertaken in a Pioneer Scheme location, the Connection Applicant will be required to make payment to comply with the Reimbursement Scheme for connection to the network in the same manner that applies for connection of loads.

Subdivision Applicants (including strata title subdivisions) will not be eligible to receive reimbursements as original customers.

The load associated with such applications, for the purposes of cost share reimbursement calculations and the pro-rata reimbursement will be determined by Endeavour Energy.

Reimbursements paid by multi-occupant applicants will be regarded as payments on behalf of the declared occupants of the development and no further reimbursements will be required from those occupants when they apply for connection of load.

Further applications for provision of an electricity network or connection of load for premises that benefit from but were not declared in a previous Application for Provision of an Electricity Network may be required to pay reimbursements pursuant to a Pioneer Scheme.

6.0 Contracting with us for our Connection Services

A connection of load application is required for all new load, and increases in load requiring an upgrade or augmentation to service lines, consumer's mains, switchboard or the upgrade to the number of phases supplying an installation.

Generally if you wish to connect a typical low voltage load under 100A single phase or under 63A three phase in an existing urban area, you will be provided a connection offer under a Low Voltage Basic Connection Service regardless of whether we are required to carry out any extensions or augmentation works to the network in order to facilitate the connection.

There are also many other types of low voltage connections such as loads in non-urban (rural, village etc.) and loads above 100A single phase or 63A three phase. Connection applications requiring these connections may also be offered a Low Voltage Basic Connection Service if it is assessed that the connection can be supported by the network without the need to extend or augment the network.

We will undertake and fund any augmentation or extension to the network that is required to allow a new connection or connection alteration where we have offered you a Low Voltage Basic Connection Service.

In cases where the non-urban or larger low voltage loads are assessed as needing augmentation or extension works to the network, you will be issued a connection offer for a Standard Connection Service or invited to negotiate a connection offer.

When considering applications, we will determine which areas are urban and rural based on the criteria as specified within the definition of rural and urban below and the Local Planning Instruments.

If land is zoned in the relevant Local Planning Instrument as urban, non-urban or rural then we will apply the relevant policy accordingly. If, however, the land zoning is of a different nature without reference to urban or non-urban or rural (e.g. Residential 1A, 1B etc. or residential bushland conservation), we will determine whether an urban or non-urban classification is appropriate. As a guide, we ordinarily consider lots greater than 4,000m² to be non-urban, unless they are specifically within a commercial or industrial development.

Rural network (Non-urban) is that part of a network:

- where the average demand on the high voltage (HV) feeders is less than 0.3 MVA / km; or
- that is in an area zoned as rural under a local environmental plan made under the *Environmental Planning and Assessment Act 1979* (NSW); or
- that is in an area that is predominantly used for agricultural purposes.

Urban network means that part of a network that is not a rural network.

Due to additional safety and operational constraints that are associated with high voltage installations and temporary builders supplies, these Connection Services are offered as Standard Connection Services only.

The terms and conditions applicable to a connection to our network are set out in our suite of Model Standing Offers for specific Connection Services available on the Endeavour Energy website www.endeavourenergy.com.au.

7.0 Contractual process and ASP interaction

We are committed to providing an efficient service for processing of applications, enquiries and processing of contestable services activities for our customers.

We have developed and monitor key performance indicators which are a measure of the maximum allowable time for processing. For information on our contractual process and ASP interaction, please visit our website at www.endeavourenergy.com.au.

8.0 Definitions

"Accredited Service Provider" or **"ASP"** has the meaning given in the *Electricity Supply Act 1995* (NSW)

"Ancillary Network Services" means any Connection Service provided by Endeavour Energy for a new connection or connection alteration that is not Endeavour Energy Provided Connection Works. These are Alternate Control Services which may change from time to time.

"Augmentation" has the meaning given in the NER

"Endeavour Energy", **"our"**, **"us"** and **"we"** mean Endeavour Energy ABN 11 247 365 823.

"Connection Applicant" and **"you"** mean a retail customer, a person acting on behalf of a retail customer, or real estate developer who applies to us for a Connection Service.

"Connection Application" has the meaning given in Chapter 5A of the NER.

"Connection Asset" has the meaning given in the NER.

"Connection Charge" has the meaning given in the NER.

"Connection Charge Guidelines for Electricity Retail Customers" refers to the document prepared by the AER and available on their website www.aer.gov.au.

"Connection Policy" means this connection policy approved by the AER.

"Connection Services" has the meaning given in the NER.

"Contestable Services" has the meaning given to the term "contestable network service" in the *Electricity Supply Act 1995* (NSW).

"Customer" means each customer identified in a Connection Application.

"Embedded Generator" has the meaning given in Chapter 5A of the NER.

"Embedded Generating Unit" has the meaning given in the NER.

"Endeavour Energy Provided Connection Works" are defined in clause 2.1

"Extension" has the meaning given in the NER.

"NER" or **"National Electricity Rules"** means the National Electricity Rules applicable in New South Wales pursuant to the *National Electricity (New South Wales) Act 1997* (NSW).

"Subdivision Applicant" has the same meaning as Connection Applicant.

Appendix 1 Ancillary Network Services

1. Design related services

The provision of information by a DNSP to enable an ASP accredited for level 3 works to prepare a design drawing and to certify it.

Activities include:

1. provision of design information, design rechecking services in relation to connection and relocation works provided contestably;
2. work of an administrative nature relating to work performed by Level 1 and Level 3 ASPs, including processing work;
3. provision of engineering consulting (related to the shared distribution network).

2. Connection application related services

Activities relating to the connection application.

This includes:

1. assessing connection applications or requests to undertake relocation of network assets as a Contestable Service and preparing offers;
2. processing preliminary enquiries requiring site specific or written responses;
3. undertaking planning studies and associated technical analysis (e.g. power quality investigations) to determine suitable/feasible connection options for further consideration by applicants;
4. site inspections in order to determine the nature of the Connection Service sought by the Connection Applicant and ongoing co-ordination for large projects registered participant support services associated with connection arrangements and agreements made under Chapter 5 of the NER.

3. Inspection and re-inspection services

Inspection of and reinspection by us, for safety purposes, of:

1. private electrical wiring work undertaken by an electrical contractor and Contestable Services undertaken by ASPs;
2. the investigation, review and implementation of remedial actions that may lead to corrective and disciplinary action of an ASP due to unsafe practices or substandard workmanship;
3. private inspection of privately owned low voltage or high voltage network infrastructure (i.e. privately owned distribution infrastructure before the meter).

4. Access permits, oversight and facilitation

The provisions by a DNSP to a person authorised by law to work on, or near, a distribution system.

Activities include:

1. issuing access permits or clearances to work to a person authorised to work on or near our distribution system including high and low voltage;
2. issuing confined space entry permits and associated safe entry equipment to a person authorised to enter a confined space;

3. providing access to switch rooms, substations and the like to a non-DNSP party who is accompanied and supervised by a distributor's staff member. This may also include a distributor providing safe entry equipment (fall-arrest) to enter difficult access areas.
4. specialist services (which may involve design related activities and oversight/inspections of works) where the design or construction is non-standard, technically complex or environmentally sensitive and any enquiries related to distributor assets.
5. facilitation of generator connection and operation of the network.
6. facilitation of activities within clearances of distributor's assets, including physical and electrical isolation of assets.
7. provision of approved materials/equipment to ASPs for connection assets that will become part of the shared distribution network.
8. assessing an application from an ASP or manufacturer to consider approval of alternative material and equipment items that are not specified in the distributor's approved materials list.

5. Notice of arrangement and completion notices

Work of an administrative nature that we perform where a local council requires evidence in writing from us that all necessary arrangements have been made to supply electricity to a development.

This may include, without limitation:

1. receiving and checking subdivision plans and 88B Instruments.
2. copying subdivision plans.
3. checking and recording easement details.
4. assessing supply availability.
5. preparing files for conveyancing officers.
6. liaising with developers if errors or changes are required.
7. providing a completion notice.
8. preparing notifications of arrangement.

6. Contestable network commissioning and decommissioning

The commissioning and decommissioning of network equipment associated with ASP Level 1 contestable network services. This includes equipment checks, tests and activities associated with setting or resetting network protection systems and the updating of engineering systems.

7. Termination of cable at zone substation – distributor required performance for safety reasons

The termination of cable at zone substations and first joint out, where:

1. a work health and safety assessment determines that an ASP should not be given the required access to the zone substation; and
2. the connection is fully dedicated to the specific customer connecting.

8. Site establishment services

Activities include, but not limited to:

1. Site establishment, including liaising with the 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. This includes processing and assessing requests for a permanently unmetered supply device.
2. Site alteration, updating and maintaining national metering identifier (NMI) and associated data in market systems.
3. NMI extinction, processing a request by the customer or their agent for permanent disconnection and the extinction of a NMI in market systems.
4. Confirming or correcting metering or network billing information in market business to business or network billing systems, due to insufficient or incorrect information received from retailers or metering providers.

9. Network safety services

This may include without limitation:

1. provision of traffic control services where required.
2. fitting of tiger tails, high load escort.
3. de-energising wires for safe approach (e.g. for tree pruning).
4. work undertaken to determine the cause of a customer fault where there may be a safety impact on the network or related component.
5. Neutral integrity test – where customers that we investigate the occurrence of mild electric shocks within a customer's premises to determine whether the fault exists within the customer's installation or on the network. A fee would be levied where the fault is within the customer's installation.