

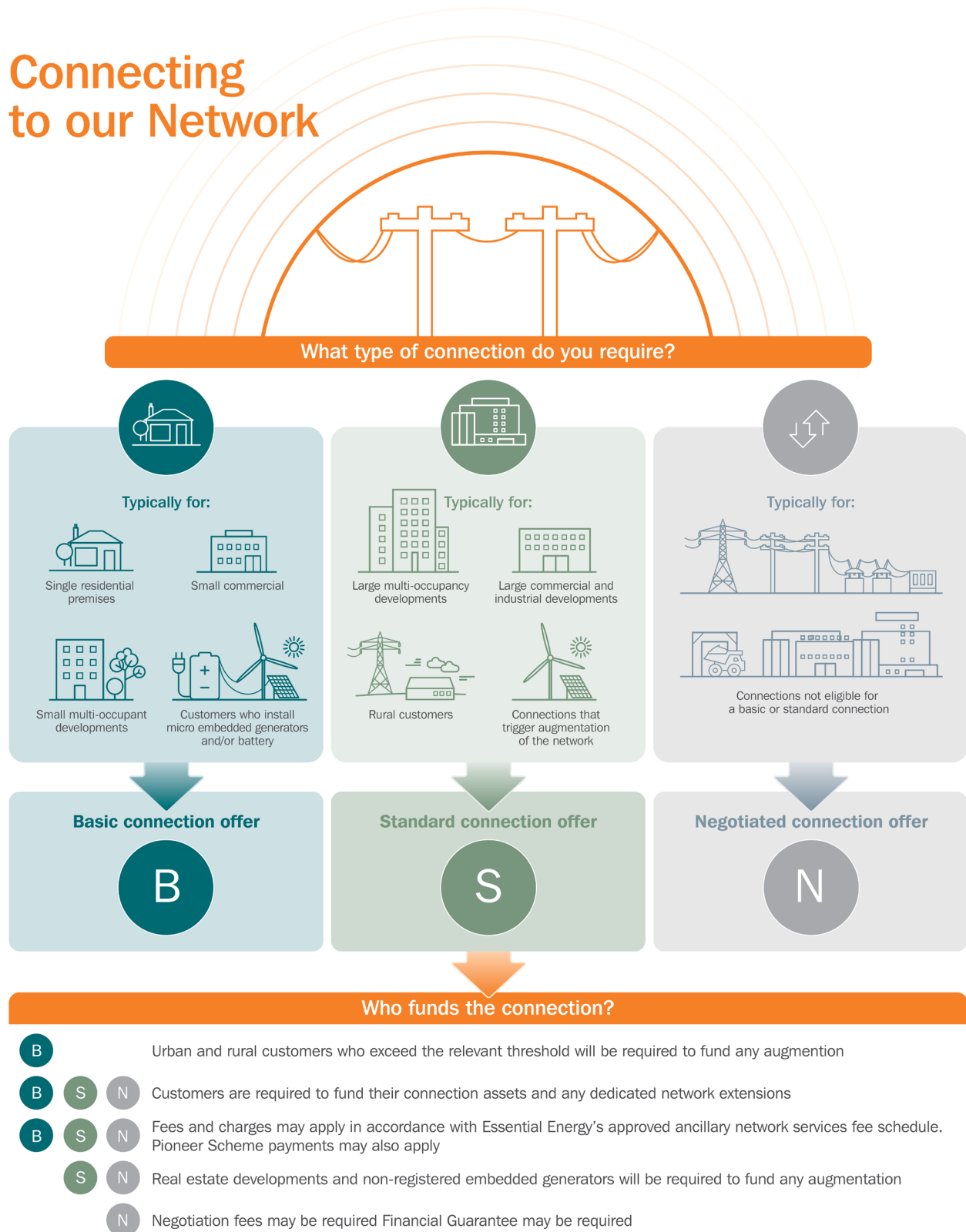
ESSENTIAL ENERGY CONNECTION POLICY – CONNECTION CHARGES CEOP2513.06



April 2018

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Connecting to our Network



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UNCLASSIFIED**1.0 INTRODUCTION**

This document is Essential Energy's Connection Policy.

This connection policy takes into account customer and stakeholder feedback received as part of Essential Energy's 2019-24 customer and stakeholder engagement plan. The policy strengthens affordability and supports the objective of the National Electricity Rules (NER) to move towards cost reflective pricing and to remove cross subsidisation. The policy sets out the circumstances in which Essential Energy requires a retail customer or real estate developer to pay the cost of connecting their premises or development to the Essential Energy network. The costs are also known as connection charges for the provision of connection services under Chapter 5A of the NER.

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

This policy has been prepared to be consistent with the following regulatory instruments, which regulate the fees and charges that Essential Energy 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 (Connection Charge Guidelines), and
- > The AER's determination for the 2019-24 regulatory control period in relation to the fees that Essential Energy can charge for ancillary network services and metering services for type 5 and 6 meters.

Note:

This policy does not apply to connections to Essential Energy'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.

1.1 General approach to finding connections

The fees and charges payable by a customer in order to connect to Essential Energy'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 Essential Energy's fees and charges for connection services provided by Essential Energy.

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

1.1.1 Third party fees and charges

The third party fees and charges are not payable to Essential Energy 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 Essential Energy's network.

UNCLASSIFIED***Contestable services provided by Accredited Service Providers***

As a general rule, the services required to establish a customer's connection to Essential Energy'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 Essential Energy'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 Essential Energy'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.

1.1.2 Network Augmentations

Generally Essential Energy 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.
- > Nonregistered embedded generators must fund augmentation work.
- > Retail customers: If the capacity applied for by the connection applicant exceeds the threshold set by Essential Energy in Section 3 of this policy, they will be required to make a capital contribution towards the cost of the augmentation of Essential Energy's shared network.

In all cases:

- > The capital contribution will be limited to the augmentation required to enable the connection to be made while maintaining the existing performance of the network.
- > The augmentation work is contestable and undertaken by an ASP, so the capital contribution is payable to the ASP, not Essential Energy.

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 Essential Energy infrastructure located on the customer's premises. These costs are also not payable to Essential Energy, but directly to the relevant third party unless statutory or other requirements dictate that Essential Energy must perform the activity. In that case, costs will be payable direct to Essential Energy.

1.1.3 Essential Energy fees and charges***Ancillary network service fees***

Ancillary network services are services which are provided to a customer on an "as needed" basis and are able to be directly attributed to the customer receiving the service. All customers will be required to pay the fees for Ancillary network services associated with their connection. These fees relate to the services that Essential Energy provides during the design and construction (on a contestable basis) of premises connection assets, extensions and augmentation by ASPs. An

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example would be inspection of assets built by a Level 1 ASP. These services and fees are explained in detail in section 4.

Metering Services for Type 5 and 6 meters

Metering services for type 5 and 6 meters are the only metering services provided by Essential Energy in relation to connection services. See section 5 for further details.

Other fees

In some circumstances, customers may be required to pay a site inspection fee if a site inspection is required. Customers who receive a negotiated connection offer can be required to pay Essential Energy's reasonable expenses in assessing the customer's connection application and preparing the offer. Essential Energy'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 seven 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, Essential Energy may require a customer to provide Essential Energy with a financial guarantee known as a Guarantee of Revenue (GoR) which guarantees Essential Energy a certain level of revenue in relation to a substantial augmentation that Essential Energy has funded in order for the customer to connect. Refer section 8.

1.1.4 Charges for Ongoing Supply Services

For information purposes only, this policy sets out miscellaneous fees that Essential Energy may charge once a new or altered connection has been energised. These fees are explained in Appendix D.

1.1.5 Connection Charges

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

- 1 Ancillary network service fees for all ancillary network services provided by Essential Energy in order for the customer to connect – see section 4;
- 2 Metering service fees for type 5 and 6 meters – see section 5;
- 3 Other fees if a site inspection is required and/or negotiation fee for a negotiated connection offer – see section 6;
- 4 A pioneer scheme payment may be required – see section 7.
- 5 In addition, the customer may also be required to provide Essential Energy with a financial guarantee in certain circumstances, such as where Essential Energy funds a network augmentation – see section 8.

UNCLASSIFIED**2.0 CUSTOMER FUNDED CONNECTION WORKS & AUGMENTATIONS**

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

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

The charges for standard connection services also include the extension and augmentation costs as well as funding premises connection assets and ancillary network service fees and any applicable metering service fees. The augmentation costs are determined by reference to a capital contribution threshold set by Essential Energy.

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 for small low voltage connections and 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 Essential Energy'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 Essential Energy'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 network services fees and any applicable metering services fees associated with their connection. These are explained in detail in sections 4 and 5, and Appendixes B and C.

Essential Energy may require lodgement of security bonds for financial guarantee (see section 8 and / or activities that remain incomplete at time of energisation (such as Crown land licences).

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, any dedicated network extension, and any dedicated asset augmentation, will be carried out by the customer's ASP. This includes the provision of the service line by the customer's level 2 ASP, refer to Appendix A.

2.2 Standard Connection Offers

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

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

In addition, if a 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 usually 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. Essential Energy 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 Essential Energy 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 network service fees and any applicable metering service fees associated with their connection. These are explained in detail in sections 4 and 5, and Appendixes B and C.

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 Essential Energy funded augmentation works. The circumstances in which a GoR may be required are set out in more detail in section 8.

Essential Energy may require lodgement of security bonds for activities that remain incomplete at time of energisation (such as Crown land licences).

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.

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

2.3 Negotiated Connection Offers

These offers are for applications that are not eligible for either a Basic Offer or a Standard Offer, or for use when the connection applicant elects to use this option.

Customers who receive a negotiated connection offer for Essential Energy will be required to pay connection charges to Essential Energy 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.

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In addition, these customers may also be required to pay a negotiation fees to cover expenses reasonably incurred by Essential Energy in assessing the customer's application and preparing a negotiated connection offer – refer to section 6.

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

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

2.4 Contestability of Connection Works

Under section 31 of the Electricity Supply Act 1995 (NSW), 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 NSW Department of Planning and Environment, Division of Resources and Energy.

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

2.5 Connection Works Carried out by Essential Energy

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

Based on a risk assessment by Essential Energy, the following categories of connection works may be carried out by Essential Energy and funded by the customer:

- > All work within existing substations including pole transformer substations that are connected to the network and are energised
- > Based on an individual risk assessment carried out by Essential Energy, certain major projects such as transmission, sub-transmission, zone substation projects
- > Optical fibre termination
- > Works potentially impacting Essential Energy's existing telecommunications network infrastructure

2.6 Shared Connection Works

Essential Energy will consider the potential for any new dedicated high voltage (HV) mains extension supplying a multi occupant development or a customer substation in an urban network, to be used to supply other customers outside the development in the foreseeable future. This could occur via a direct connection to, or via a further HV mains extension of, the original HV mains extension. When Essential Energy receives the original application, it will determine any reasonable likelihood of such asset sharing taking place in the foreseeable future (maximum of seven years). This assessment by Essential Energy may determine that the original HV mains extension will be classed as network augmentation, with a funding contribution by Essential Energy.

UNCLASSIFIED**2.7 Customer Requested Alternative or Additional Connection Works**

Essential Energy 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 Essential Energy construction, and Essential Energy agrees with the request, the customer will be required to fund any additional costs thereby incurred by Essential Energy. This includes the additional cost of any alternative or additional HV equipment that would otherwise be funded by Essential Energy in accordance with sections 2.5 and 2.6.

3.0 CAPITAL CONTRIBUTION THRESHOLDS

A capital contribution is a payment made by a customer towards the cost of a connection to Essential Energy'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 Essential Energy. This policy sets out the circumstances when a capital contribution is payable. The amount of that 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 on the shared network beyond the linkage point (to the extent that 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 Essential Energy are not exceeded.

3.1 Capital Contribution Thresholds

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

- 1 An urban threshold for customers in urban areas;
- 2 A rural threshold for customers in rural areas.

The Capital Contribution Thresholds will apply for the 2019-24 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 Essential Energy network will be required to fund one or more substations on or in the vicinity of the development or additional capacity in the vicinity of the development or embedded generator.

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

- > For substations (usually onsite): The design and construction by an ASP of the substation(s) and network extension(s) consisting of the dedicated 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 Essential Energy, this LV interconnector will also be funded by the customer.

- > For other network augmentations, in the vicinity of the premises or otherwise: The design and construction of any network augmentations that are required to make the required capacity

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available at the premises of the connection applicant while maintaining the existing performance of the network;

- > The substation building construction for chamber substations; and any site preparation works, including special foundations, footings, piers, retaining walls and railings for kiosk substations;
- > All easement costs and other approvals, whether new or adjustments.

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

3.1.2 *Retail Customer Threshold for Urban Areas*

Essential Energy has adopted the following threshold to determine when a retail customer must contribute to the cost of expanding the capacity of the Essential Energy 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 Essential Energy 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 substations (usually onsite): The design and construction by an ASP of the substation(s) and network extension(s) consisting of the dedicated 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 Essential Energy, this LV interconnector will also be funded by the customer.

- > For other network augmentation 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 while maintaining the existing performance level of the network.
- > The substation building, construction for chamber substations, and any site preparation works, including special foundations, footings, piers, retaining walls and railings for kiosk.
- > All easement costs and other approvals, whether new or adjustments.

The connection applicant may be required to provide a suitable substation site on their premises as close as possible to the street frontage where requested by Essential Energy.

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

The new substation 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.

Essential Energy may fund certain equipment in accordance with clause 2.6.

UNCLASSIFIED**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 16kVA (63 amps). The network augmentations required will be those that are required to make the required capacity available while maintaining the existing performance level of the network.

Rural customers must also fund any augmentation or network extension by way of any required dedicated customer substation equipment.

Essential Energy may fund certain equipment in accordance with clause 2.6.

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 Essential Energy 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, extensions, and dedicated asset augmentations);
- > by retail customers above the Capital Contribution Thresholds identified in section 3.1.

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 Estimation of Connection Applicant's Consumption and Demand

Information provided in the connection application will be used to estimate the applicant's consumption and demand. Essential Energy may use other methods to estimate the connection applicant's consumption or demand where the information provided on the connection application is not consistent with other customers of a similar type, or, where the existence of network constraints, emerging or otherwise, requires engineering intervention to manage impact on the network.

4.0 ANCILLARY NETWORK SERVICES AND FEES

Ancillary network services provided by Essential Energy fall into three categories:

- 1 Ancillary network services which are required in order for a customer to connect to Essential Energy's network (connection related ancillary network services);
- 2 Ancillary network services, which are provided to customers as part of their ongoing supply service provided by Essential Energy under a customer connection contract (Miscellaneous ancillary network services); and
- 3 Metering related ancillary network services, which are services provided on an 'as needed' basis relating to the maintenance of metering installations.

UNCLASSIFIED**Connection related ancillary network services**

These are customer specific connection services, including processing of connection applications and contestable connection works carried out by ASPs and which are required for connection. These services are necessary to ensure that an appropriate level of reliability, quality of supply and safety is maintained in the operation of Essential Energy'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 network services.

A list of these services is contained in Appendix B for guidance. The current charges for ancillary network services are approved by the AER for each financial year and are available at essentialenergy.com.au.

Miscellaneous ancillary network services

These ancillary network services are provided by Essential Energy on an "as needed" basis to the customer after the connection has been established. These ancillary network 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 the Policy for information purposes and are payable by the customer under its ongoing supply contract with Essential Energy. A list of these services is contained in Appendix D.

Ancillary network services related to metering

Essential Energy also provides ancillary network services which specifically relate to metering, such as carrying out special meter readings and meter testing. A list of these services is contained in Appendix C for guidance. The current charges for ancillary network services are approved by the AER and are available at essentialenergy.com.au.

5.0 METERING SERVICES FOR TYPE 5 AND 6 METERS

Metering services for type 5 and 6 meters are the only metering services provided by Essential Energy in relation to connection services.

The service relating to the provision and installation of the metering equipment is provided by the customers Retailer and the cost of the service is payable to the Retailer. Other metering services provided by Essential Energy are payable by the customer as part of the customer's ongoing supply network charges and are not subject to this connection policy.

6.0 OTHER FEES

Chapter 5A of the NER allows Essential Energy to charge certain fees to recover its costs from providing certain connection services relating to processing the connection application.

Site inspection fee

Where Essential Energy reasonably needs to make a site inspection in order to determine the nature of the connection service sought by the connection applicant, Essential Energy may charge its reasonable expenses to the connection applicant and recover those costs as a debt. Essential Energy will calculate the fee payable in accordance with the labour charge rates that have been approved by the AER.

UNCLASSIFIED**Negotiation fee**

Where a connection applicant's application relates to a negotiated connection contract under Chapter 5A of the NER, Essential Energy may charge the applicant a reasonable fee to cover expenses directly and reasonably incurred by Essential Energy in assessing the applicant's application and making a connection offer.

Essential Energy requires the connection applicant to pay an upfront fee of \$250 to assess the applicant's application prior to the commencement of negotiations. Following Essential Energy's initial assessment of the connection application, and to ensure full transparency, Essential Energy will provide the connection applicant with an estimate of the charges the connection applicant will be required to pay in order for Essential Energy to assess the application and make a connection offer.

7.0 PIONEER SCHEMES

Under Chapter 5A of the NER, Essential Energy is required to operate a pioneer scheme which requires Essential Energy to make refunds to retail customers who funded connection assets within seven 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.

The entitlement of real estate developers to access a pioneer scheme for extension assets they fund will be determined in accordance with the AER Connection Charge Guidelines.

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

8.0 FINANCIAL GUARANTEES (SECURITY FEE)

In accordance with Chapters 5A and 6 of the NER, to avoid any cross subsidisation Essential 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 Essential Energy funded network augmentation works that is initially only for the customer's benefit, and where Essential Energy considers there is a high risk that Essential Energy may not earn the estimated incremental revenue from the construction of the network augmentation works.

A GoR is a legally binding agreement between Essential Energy and the connection applicant where the connection applicant guarantees to pay Essential 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 Essential Energy incurred by undertaking the network augmentation. The security amount under the GoR will be calculated by reference to the incremental revenue that Essential Energy expects to receive from the network augmentation. The security amount will not be greater than the amount of estimated incremental revenue which Essential Energy assesses as having a high risk of not being recovered.

The GoR will be established at the same time as the connection offer is accepted and/or 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 Essential Energy. Essential Energy is entitled to withdraw from the bank

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guarantee any shortfall in actual NUoS payments, in accordance with the terms stated in the deed and the bank Guarantee.

9.0 PREPAYMENTS

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

10.0 DISPUTE RESOLUTION

A dispute between a retail customer or real estate developer and Essential Energy 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, Essential Energy encourages customers to first attempt to resolve the dispute directly with Essential Energy, in accordance with Essential Energy's Complaints and Dispute Resolution Procedure. Details of how to apply for review of a decision by Essential Energy and how Essential Energy will conduct the review are available on Essential Energy's website: essentialenergy.com.au.

Small customers may also refer their dispute to the relevant Ombudsman to resolve the matter.

For small customers in New South Wales, the ACT and Victoria:

Energy and Water Ombudsman of New South Wales
Freecall: 1800 246 545
Freefax: 1800 812 291
Email: omb@ewon.com.au
Mail: Reply Paid Box K1343, Haymarket NSW 1239

For small customers in Queensland:

Queensland Energy Ombudsman
Freecall: 1800 662 837
Freefax: 1800 812 291

Email: complaints@ewoq.com.au or info@ewoq.com.au
Mail: PO Box 3640, South Brisbane QLD 4101

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11.0 DEFINITIONS

As far as possible, Essential Energy 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 components of a distribution system used to provide connection services. 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:

<i>augmentation</i>	Work to enlarge a distribution or transmission system or to increase its capacity to transmit or distribute electricity.
<i>AER</i>	The Australian Energy Regulator
<i>ASP</i>	An Accredited Service Provider, being an entity accredited under Part 3 of the Electricity Supply (Safety and Network Management) Regulation 2014 (NSW)
<i>connection works</i>	<p>In relation to a new customer, are those works yet to be constructed which will upon construction:</p> <ol style="list-style-type: none"> Enable Essential Energy to provide customer connection services requested by that new customer; and Form part of the <i>network</i> on the side of the <i>linkage point</i> where all the <i>network</i> assets on that side are dedicated to one or more customers. <p>These include (without limitation)</p> <ol style="list-style-type: none"> 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 <i>network</i>; and In the case of services to existing connection points: <ol 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; or Additional 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>
<i>contestable</i>	a service is contestable if the laws of the participating jurisdiction in which the service is to be provided permit the service to be provided by more than one supplier as a contestable service or on a competitive basis.
<i>embedded generator</i>	means a person that owns, controls or operates and <i>embedded generating unit</i>
<i>extension</i>	New <i>network</i> infrastructure outside the present boundaries of Essential Energy's <i>network</i> to a customer's premises.

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linkage point	The point on the <i>network</i> where the use of assets changes from being dedicated to one or more customers (where all the <i>network</i> 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: <ul style="list-style-type: none"> a. Used by one customer exclusively; or b. Shared by more than one customer in circumstances where Essential Energy has required that those customers together procure and fund the same <i>connection works</i>.
micro EG connection	means a <i>connection</i> between an <i>embedded generating unit</i> and a <i>distribution network</i> of the kind contemplated by <i>Australian Standard AS4777</i> (Grid connection of energy systems via inverters)
micro embedded generator	means a <i>retail customer</i> who operates, or proposes to operate, an <i>embedded generating unit</i> for which a <i>micro EG connection</i> is appropriate.
NER	The National Electricity Rules
network	Essential Energy's electricity distribution system
premises connection assets	means the components of a <i>network</i> used to provide connection services.
real estate developer	means a person who carries out a <i>real estate development</i> .
real estate development	means the commercial development of land including its development in 1 or more of the following ways: <ul style="list-style-type: none"> a. subdivision; b. the construction of commercial or industrial premises (or both); c. the construction of multiple new residential premises.
retail customer	includes a non-registered embedded generator and a micro embedded generator.
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 <i>connection works</i> are constructed) to the <i>network</i> at a point at which the <i>network</i> is a <i>rural network</i> .
rural network	The part of the <i>network</i> : <ul style="list-style-type: none"> a. Where the average demand on the HV feeders within it is less than 0.3MVA/km; or b. That is in an area zoned as rural under a local environment plan (made under the Environmental Planning and Assessment Act 1979 (NSW)); or c. That is in an area predominantly used for agricultural purposes.
urban network	That part of the <i>network</i> that is not a <i>rural network</i> .

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

Connection Offer	Typical application	Fees and charges involved in establishing connection	Contestable works carried out by
Basic:			
2. Model Standing Offer for a Low Voltage Basic Connection Service	All Low Voltage connections not requiring <i>network augmentation</i> beyond the <i>linkage point</i>	<ul style="list-style-type: none"> Installation of dedicated <i>premises connection assets</i>, payable to the customer's level 2 ASP. Ancillary network service fees associated with the <i>contestable</i> work, payable to Essential Energy 	Level 2 ASP, for the installation of the dedicated <i>premises connection assets</i> , i.e. the service line and energising the connection.
3. Model Standing Offer for a Low Voltage Basic Connection Service with Micro Embedded Generation	All Low Voltage connections with micro embedded generator not greater than 30kW not requiring <i>network augmentation</i> beyond the <i>linkage point</i>	<ul style="list-style-type: none"> Installation of new or upgraded meter, payable to the customers Retailer Site inspection fee payable to Essential Energy, if a site inspection is required Pioneer Scheme costs as applicable 	In the event of a <i>network extension</i> being required level 3 and level 1 ASP, for the design and construction of the <i>premises connection assets</i> and <i>network extension</i> assets, as applicable.
Standard:			
4. Model Standing Offer for a Low Voltage Standard Connection Service	All Low Voltage connections requiring <i>network augmentation</i>	<ul style="list-style-type: none"> <i>Premises connection assets</i> payable to ASP, refer to section 3 for customer substation thresholds, <i>Network augmentation</i> or <i>extension</i> payable to ASP, refer to section 3 for associated customer <i>network</i> thresholds, Ancillary network service fees associated with the <i>contestable</i> work payable to Essential Energy Pioneer Scheme costs as applicable Installation of new or upgraded meter, payable to the customers Retailer Site inspection fee payable to Essential Energy, as applicable Property tenure costs payable to third parties A GoR may be required if the connection requires significant Essential Energy funded <i>network augmentation</i>, refer section 7 	Level 3 and level 1 ASP, for the design and construction of the <i>network extension</i> and <i>network augmentation</i> assets, as applicable.
5. Model Standing Offer for a Low Voltage Standard Connection Service with Micro Embedded Generation	All Low Voltage connections with micro embedded generator not greater than 30kW requiring <i>network augmentation</i>		Level 2 ASP, for the installation of the dedicated <i>premises connection assets</i> , i.e. the service line and energising the connection.
Negotiated:			
In accordance with Essential Energy's Negotiation Framework	Connections not classified as Basic or Standard	<ul style="list-style-type: none"> As above for the Standard Offer Negotiation expenses, payable to Essential Energy 	As above for the Standard Offer

UNCLASSIFIED**Appendix B: Ancillary network services**

The AER approved charges for ancillary network services are available at essentialenergy.com.au

B1 Design Related Services**B1.1. Design Information**

The provision of information by a DNSP to enable an ASP accredited for level 3 work 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 low and high voltage circuitry geographically and schematically and adjacent project drawings
- > specifying the preferred sizes for overhead wires (conductors) or underground wires (cables)
- > specifying switchgear configuration type, number of pillars, lights etc
- > determining the special requirements of the DNSP'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
- > nominating network connection points.

B1.2. Design Certification

A certification by a DNSP that a design (if implemented) will not compromise the safety or operation of the DNSP'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 high voltage systems without disruption to customers' supply (adequate low voltage parallels)
- > certifying that funding details for components in the scope of works are correct
- > certifying that there are no obvious errors that depart from the DNSP's design 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, conductor clearance (stringing) calculations etc
- > certifying that a bill of materials has been submitted
- > certifying that an environmental assessment has been submitted by an accredited person and appropriately checked.

B1.3. Design Re-checking

Recheck of a design certification submission which has been previously been rejected by Essential Energy for failure to comply with submission requirements. This may be required as a result of a non-compliant construction drawings or failure to make a complete design submission including all necessary ancillary documentation, including easement requirements (Does not include the rechecking of minor amendments of an insignificant nature).

UNCLASSIFIED**B1.4. Design Re–certification**

Design recertification at the request of the ASP level 3 after initial certification has been granted. This may be as a result of changes required to the certified design either prior to or during the construction phase of a project, or due to the 6 months certification period expiring.

B1.5. Administration

Work of an administrative nature (not including work 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 lawfully 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 the value of reimbursements under any applicable pioneer schemes;
- > 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.

B1.6. Non–Standard Design Approval

Approval of a non-standard construction type at the request of the ASP Level 3, where during the design phase of the project the designer has identified a design requirement which do not comply with Essential Energy's approved design and construction standards.

Non-standard design requests require clear justification of the intended layout and details the proposed any deviations from approved standards.

B2 Connection Application Related Services**B2.1. Connections Customer Interface Co-ordination**

This service is proposed where customer developments may require a high level of DNSP involvement in order to coordinate a range of inputs from the DNSP 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.

UNCLASSIFIED**B2.2. Preliminary Service Enquiry**

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.

B2.3. 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.

B2.4. Connection Offer Service

Services provided by Essential Energy in assessing connection applications and making basic and standard connection offers.

This may include, without limitation:

- > Assessment of application by relevant staff and if the application is deemed to require a standard connection offer service, the application is allocated to Network Connections.
- > Network Connections 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:
 - o A direct distributor from an existing substation,
 - o A direct distributor from a new kiosk substation,
 - o A direct distributor from a new pole mounted transformer substation,
 - o A direct distributor from a new chamber substation.
- > Once the assessment has been completed by Network Connections, relevant staff forward the assessment of the standard connection offer to the customer.

Service fees may be charged for connection applications which are incomplete or include non-compliant information.

B2.5. Planning, Protection and Power Quality Studies

Planning / protection studies and associated technical analysis to 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 Essential Energy's existing network development strategies and augmentation requirements.

Power quality and load assessment investigations to determine suitability / feasibility of newly connected load or devices. Service includes field assessment, load and voltage recordings and technical analysis.

UNCLASSIFIED**B2.6. Additional Services Required by ASP / Connection Applicant**

Additional services required by ASP/Applicant of technical nature directly related to the connection application e.g. guarantee of revenue, site meetings, variations to contract, consultations, network support, CT / switchboard services etc.

B2.7. Data Gathering – Failure to Provide Documentation

The completion of data gathering by Essential Energy due to the customer / proponent / ASP's failure to provide all required project completion documentation, within the required timeframe.

B2.8. Pioneer Scheme Administration

In accordance with the AER Connection Charge Guidelines, connection applicants may be required to contribute towards connections works which were previously funded by another customer.

Administrative fee applied to manage Pioneer Scheme applications. Where Essential Energy is required to:

- > Provides reimbursement calculations and coordinates the distribution of Shared Asset Payments to customers who funded the connection assets.
- > Operates and maintains all necessary registration and record keeping information.
- > Acts as the key contact to provide advice and support to applicants.

B3 Contestable Network Commissioning & Decommissioning**B3.1. Substation Commissioning**

The commissioning by Essential Energy of a new substation, whether it is a single pole, pad mount/kiosk or indoor/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 substation protection equipment.

An Access Permit fee, in addition, may be required to gain access to the network in order to undertake the commissioning.

Essential Energy will perform the required testing and commissioning activities as per current policies and the subsequent recording in Essential Energy's asset systems.

The substation commissioning charge will be applied per substation.

B3.2. Testing & Commissioning of Streetlights, Mains, Cables & UG Pillars

The completion of commissioning tests by Essential Energy of new electrical assets which form part of the contestable connection work including:

- > Overhead and Underground streetlight commissioning;
- > Overhead and Underground live low voltage connection - connection of distribution mains (other than completed under an AP);
- > Underground pillar box / pit commissioning;
- > Underground cable tests (IR / VLF Test).

Essential Energy will perform the required testing and commissioning activities as per current policies and the subsequent recording in Essential Energy's asset system.

B3.3. Redundant Material Coordination

Service associated with the management of returned redundant connection related materials and equipment such as poles, transformers and switchgear.

Material is to be returned by the relevant ASP to an approved Essential Energy depot.

UNCLASSIFIED**B3.4. Commissioning – Other Equipment**

The commissioning by Essential Energy of new reclosers, regulators or smart switches which form part of the contestable connection work including:

- > All necessary pre-commissioning checks and tests prior to energisation;
- > Setting of protective devices;
- > Configuration of communication equipment and
- > Field commissioning.

B4 Access Permits, Oversight & Facilitation**B4.1. Access Permits (AP)**

This service fee includes network access and may include without limitation:

- > Access to Essential Energy's distribution network through the provision on an Access Permit issued to authorised personnel;
- > Researching, documenting and completion of a Network Access Request (NAR) including a site visit as required;
- > Documenting the actual switching process;
- > Programming the work;
- > Control room activities;
- > Fitting and removing of Access Permit earths;
- > The actual switching of the high and low voltage networks;
- > Notification of affected customers and NECF compliance (EE notified);
- > Cable ID, stab, cut and phase;
- > Reinstate network and testing;
- > Meeting requirements of the National Energy Retail Law (NSW) and the National Energy Retail Rules;
- > Travel costs.

The access permit charge is the maximum per access permit.

* Essential Energy may impose an additional overtime hourly rate for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs). Where Standard AP start or finish times are exceeded as a continuation of work, additional overtime hourly rates will be charged at applicable published labour classes.

Overtime may occur as a result of:

- > Failure to complete AP associated work within requested ordinary hrs;
- > Where an outage is requested outside of ordinary hrs (does not include when Essential Energy requires that the work be performed outside ordinary hours). In this situation the Overtime Access Permit Fee applies.

* A rescheduled Access Permit Outage fee will be charged where an ASP cancels an outage request within 10 days lead time prior to the scheduled outage.

Excludes - Provision of MG (Motor Generator) and Live Line to maintain supply where temporary supply arrangements are requested by an ASP and / or as prescribed in the design information requirements, to maintain a continued but temporary supply to otherwise impacted customers during contestable connection works. These are services are in addition and covered by another quoted service.

B4.2. Access to Network Assets (Standby)

The provision of access to switch rooms, substations and the like to an ASP who is accompanied by a distributor's staff member. This service does not include site supervision or de-energisation of assets.

UNCLASSIFIED***B4.3. Sale of Approved Materials & Equipment to ASP's***

Provision of approved materials/equipment to ASPs for connection assets that will become part of the shared distribution network.

B4.4. Services to supply and connect temporary supply to one or more customers

The provision of an MG (Motor Generator) connection to the network or a direct distributor and / or use of HV Line Live / LV Live Techniques when requested by an ASP and or as prescribed in the design information requirements 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.

The costs of MG hire are not included as these are commercially available. Hire cost of providing generators are in addition to this service.

Note also, there is no allowance for Essential Energy to supply an MG standby technician if required. This would be covered as an additional service.

B4.5. Rectification of contestable works (ASP Installed)

Service to provide rectification of defective or non-conformant contestable work installed by accredited service provider (ASP). Where installation is not installed to relevant Essential Energy construction standards. The ASP will be required to cover costs associated with rectification works.

Situations include where construction non-conformances have been identified during construction inspection audits and / or:

- > the relevant ASP fails to rectify within nominated non-compliance action period;
- > the relevant ASP elects the rectification work is completed by the DSNP.

Rectification works may also be completed by the DSNP under fault and emergency situations, where rectification works is required to rectify safety issues or maintain electricity supply.

B5 Notices of Arrangement and Completion Notices***B5.1. Notice of Arrangement***

Work of an administrative nature performed by a distributor where a local council requires evidence in writing from the distributor that all necessary arrangements have been made to supply electricity to a development.

This may include receiving and checking plans and easement documentation such as Section 88B Instruments and Transfer Granting Easements, copying plans and associated documentation, checking and recording easement details, preparing files for Conveyancing officers, liaising with developers if errors or charges are required, checking and receiving duct declarations and any amended linen plans and easement documentation approved by a conveyancing officer and preparing notifications of arrangement.

B5.2. Request for Early Notice of Arrangement

Work of an administrative nature performed by a distributor where a local council requires evidence in writing from the distributor that all necessary arrangements have been made to supply electricity to a development.

The NOA is issued before works are completed at the request of the ASP. The processing of the early NOA requires additional services in addition to a standard NOA.

B5.3. Completion Notice – Other than Notice of Arrangement

Provision of completion notice prior to issue of Notice of Arrangement. An ASP may request the DSNP to provide a "Completion Notice" to verify that the work have been completed and meet the DSNP's standards.

UNCLASSIFIED**B6 Network Related Property*****B6.1. Conveyancing Information***

The provision of information regarding the availability of supply, presence of electrical equipment, proposals of new works and related information for property conveyancing purposes undertaken with or without any physical inspection of a site, other than the provision of information or the answering of enquiries relating to any matter under Government Information (Public Act) Act Freedom of Information legislation.

B6.2. Easement Processing – Conveyancing Review

Work of a conveyancing nature performed by Essential Energy (or on behalf of Essential Energy) relating to review, rectification, certification and execution of easement documentation including but not limited to Transfer Granting Easements, Section 88B Instruments, Customer & Landowner Deeds, survey plans. Such work also includes administration work required in that process such as file preparation, record keeping, photocopying, scanning and dispatch of documentation. A separate fee may be charged for the review of separate documentation e.g. Customer Deed and Transfer Granting easement for the same easement is deemed to be two pieces of work.

B6.3. Services Involved in Obtaining Deeds of Agreement

Services related to the acquisition of tenure over and access to DNSP assets associated with contestable connection works. New assets being connected to the network may be positioned on land not legally accessible to DNSP. To ensure DNSP 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.

B6.4. Development Applications and Encroachment Processing

Services relating to work performed by Essential Energy in providing comment to consent authorities, landowners and their consultants in relation to development applications as contemplated by the State Environmental Planning Policy (Infrastructure) 2007. In addition, work undertaken in the assessment of encroachments on Essential Energy's network is also included.

B6.5. Crown Land Acquisition

Work performed by Essential Energy (or on behalf of Essential Energy) relating to acquisition of crown land (including interests in land). Any work or services provided in acquiring the relevant interest through the compulsory acquisition process included but not limited to liaising with customer as to requirements, obtaining internal approvals, preparation, negotiation and execution of formal documentation, engagement of panel lawyer, liaising with panel lawyer, preparation of Ministerial submission including complying with legislative requirements, reviewing VG's determination, arranging required payments including seeking reimbursement from customer, reporting to customer and all matters relating to gazettal and registration. Services also include administration work required such as photocopying, scanning, emailing, accounting processes.

B6.6. Legal Review Services – Customer Funded Works

Work of a legal nature performed by Essential Energy (or on behalf of Essential Energy) relating to legal issues and activity arising from customer funded projects.

B7 Site Establishment Services***B7.1. Site Establishment***

Site establishment services, including liaising with 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.

UNCLASSIFIED**B8 Network safety Services****B8.1. Work near electrical assets – De-energisation of Mains**

This service provides de-energisation of Overhead and Underground mains where it has been identified that exclusion distances cannot be maintained.

Examples of work activities include vegetation clearing, construction work and operating cranes.

This service can include but not limited to:

- > Access to Essential Energy's distribution network through the provision on an Access Permit issued to authorised personnel or Issuing of Operating Agreement;
- > Researching, documenting and completion of a Network Access Request (NAR) including a site visit as required;
- > Documenting the actual switching process;
- > Programming the work;
- > Control room activities;
- > Fitting and removing of Access Permit earths or Low Voltage bonds (if required);
- > The actual switching of the High and Low voltage networks;
- > Notification of affected customers and NECF compliance (EE notified);
- > Reinstate network testing and commissioning;
- > Meeting requirements of the National Energy Retail Law (NSW) and the National Energy Retail Rules;
- > Travel costs.

Excludes - Provision of Essential Energy staff as an Authorised Access Permit Recipient. This service is in addition and would be covered under Site Safety Supervision service.

B8.2. Work near electrical assets – Disable Auto Reclose

Disabling of Auto Reclose (DAR) protection settings associated with Vegetation works near High Voltage Mains.

This service can include but not limited to:

- > Disabling of Auto Reclose Protection setting to allow works to be safely completed by authorised personnel to approved safety clearances as set within Essential Energy's safety rules;
- > Researching, documenting and completion of a Network Access Request (NAR) including a site visit as required;
- > Documenting the actual switching process (for field operations);
- > Programming the work;
- > Control room activities;
- > The actual switching of the High network;
- > Notification of affected customers and NECF compliance (EE notified);
- > Travel cost.

B8.3. Provision of Traffic Control by the DSNP

Provision of Traffic Control by Essential Energy where deemed required to meet worksite safety requirements. The provision of Traffic Control can be in conjunction with, but in addition to other requested services.

B8.4. Site Safety Supervision

Provision of field staff to perform site safety supervision to unauthorised personnel performing work near the DSNP's assets. Service may include Essential Energy staff performing the role of the Access Permit Recipient.

UNCLASSIFIED***B8.5. Provision of construction work by DSNP***

Provision of network related construction work by Essential Energy to facilitate construction (non-connection related) activities within clearances of the distribution network or assets.

Service includes physical and / or electrical isolation e.g. temporary removal or overhead mains to facilitate vegetation removal works.

The provision of construction staff can be in conjunction with but in addition to other requested services.

B8.6. Warning Markers

Installation of visual warning markers and temporary covers on overhead mains and service lines as requested by a third party. Can include rental or purchase of warning markers.

Services can include:

- > Tiger Tails installation;
- > Construction warning marker installation;
- > Design and installation of aerial markers.

NB. this does not include the installation of temporary covers (on de energised mains) by certain ASPs in association with their contestable work, in accordance with their Service Provider Authorisation, which is contestable work.

B8.7. High Load Escorts

Temporary relocation, or other manners of making safe, of overhead mains for high vehicle loads and high load escorts.

B9 Rectification Works to Maintain Network Safety***B9.1. Vegetation Clearing of Private Trees Encroaching DSNP Assets***

Vegetation clearing of private trees which are encroaching within safe limits of Essential Energy's electrical network. Where the landowner is responsible for the vegetation management and fails to maintain the necessary safety clearances or where the customer elects Essential Energy to complete.

B9.2. Inspection of Private Trees Encroaching DSNP Assets

Inspection of private trees which are encroaching within safe limits of Essential Energy's electrical network.

B9.3. Vegetation Clearing of Private Trees Encroaching Private Assets

Vegetation clearing of private trees which are encroaching within safe limits of the customers private electrical aerial mains within bush fire prone areas or where a customer requires electricity supply for medical assistance (life support customer). Where the customer has been notified and fails to rectify, and the defect presents a community safety risk.

B9.4. Rectification works by Essential Energy of Private Asset Aerial Mains Defects

Rectification work completed by Essential Energy on Private aerial mains defects within bush fire prone areas or where a customer requires electricity supply for medical assistance (life support customer). Where the customer has notified and fails to complete and the defect presents a community safety risk.

B9.5. Rectification works by Essential Energy of DSNP's Assets due to Landowner Encroachment Issues

Rectification work undertaken by Essential Energy due to failure of a landowner to maintain electrical easement clearances (encroachment). And as a result, present a safety risks to the network / community or inhibit access to network infrastructure.

UNCLASSIFIED**B10 Retailer of Last Resort (ROLR)***B10.1. Retailer of Last Resort (ROLR)*

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'.

B11 Planned Interruption – Customer Requested*B11.1. Planned Interruption – Customer Requested*

Where the customer requests to move a DSNP planned interruption and agrees to fund the additional cost of performing the associated planned distribution work outside of normal business hours.

B12 Attendance at customers premises – Statutory Right*B12.1. Attendance at customers premises – Statutory Right*

Recovery of costs associated with gaining access to a customer premises under statutory law, in order to carry out necessary Essential Energy functions.

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.

B13 Inspection Services – Private Electrical installations and ASP's*B13.1. Inspection of construction work (by level 1 ASP's)*

The inspection by Essential Energy of work undertaken by an ASP accredited to perform Level 1 work, for the purpose of ensuring the quality of the assets to be handed over to Essential Energy.

B13.2. Inspection of service work (level 2 ASP's)

The inspection by Essential Energy, in accordance with the DTIRIS Accredited Service Provider Scheme of work undertaken by a Level 2 ASP, for the purpose of ensuring the quality of assets to be handed over to Essential Energy.

B13.3. Re-inspection of work of a service provider (level 1 & 2 ASP's work)

The re-inspection by Essential Energy of work (other than customer installation work) undertaken by an ASP accredited to perform level 1 or level 2 work, for the reason that on first inspection the work was found not to be satisfactory.

B13.4. Re-inspection Customer Installation

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

B13.5. Investigation, review and implementation of remedial actions associated with work performed by ASP's

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.

UNCLASSIFIED***B13.6. Substation Inspections***

The inspection by Essential Energy of substations installed by an ASP accredited to perform Level 1 work, for the purpose of ensuring the quality of the assets to be handed over to Essential Energy.

This service is in addition to other Level 1 inspection services, where substations have been installed as part of new contestable connection works.

B13.7. Inspection service of privately owned electrical infrastructure

The inspection by Essential Energy of privately owned low voltage or high voltage network infrastructure (i.e. privately-owned distribution infrastructure before the meter).

B13.8. Inspect Installation (customers) infrastructure

Initial inspection by a DSNP of private electrical wiring work undertaken by an electrical contractor. Inspection of electrical work as submitted within the Certificate of Compliance for electrical work (CCEW), as required under the Electricity (Consumer Safety) Act 2004 and Electricity (Consumer Safety) Regulation 2015.

B14 Provision of Training to 3rd parties for Network Related Access***B14.1. Access Permit Recipient Training for ASP's***

Provision of Access Permit Recipient training as required for Essential Energy's ASP authorisation purposes.

B14.2. ASP Compliance Related Training Services

Provision of training services to ASP's which form part of ASP authorisation or compliance to Essential Energy's contestable systems and processes.

B14.3. Provision of Training - Entry into Electrical Stations

Provision of training and authorisation as required for entry within Essential Energy's electrical stations.

Legislation requires Essential Energy to control access to our electrical stations to suitably trained and authorised persons.

This course:

- > addresses the underpinning knowledge and outlines the responsibilities of people who are authorised to enter our electrical stations;
- > covers all electrical stations including zone substations, padmount and ground type substations;
- > acts as both an initial training and a refresher course, with refresher training being required every 2 years;
- > must be successfully completed for a person to become authorised including demonstrating required safe work practices, and the ability to identify and minimise risks whilst in these environments.

B15 Security Lighting***B15.1. Provision of Security Lighting***

Provision of security flood lighting (night watch) as requested of a customer to provide lighting to a private property. Service to include installation, maintenance and usage.

B15.2. Provision of Luminaire Glare Shield

Supply and installation of streetlight luminaire glare shield at customer's request.

UNCLASSIFIED**B16 Off-Peak Conversion****B16.1. Off-Peak 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.

B17 Authorisation of ASP's**B17.1. Authorisation of ASP's**

The initial issue and annual renewal of authorisation by Essential Energy of individual employees or sub - contractors of an ASP to carry out work on or near Essential Energy's distribution system.

This may include without limitation:

- > confirmation of accreditation and registration status with DTIRIS;
- > induction in the unique aspects of the network and associated Essential Energy's safety rules and access permit requirements;
- > verification that the applicant has undertaken the necessary regulatory safety training (resuscitation etc.) within the last 12 months;
- > issuing authorisation cards;
- > administration support directly related to authorisation.

B17.2. ASP Authorisation Agreement

Authorisation of ASP Entity:

Includes the initial and annual renewal of ASP authorisation agreement by Essential for ASP entities to carry out work on or near Essential Energy's distribution system.

This may include without limitation:

- > Confirmation of entity accreditation status with the NSW ASP Scheme;
- > Induction in the unique aspects of the network;
- > Verification of authorised person associated with the entity;
- > Confirmation that the entity has provided all necessary documentation for ASP entity authorisation;
- > Acknowledged compliance with authorisation agreement;
- > Administration support directly related to the entity authorisation agreement.

B18 Customer Initiated Asset Relocations**B18.1. Design and construction of asset relocations – customer funded**

Design and construction of customer funded (contestable) asset relocations by Essential Energy in circumstances where:

- > the relocation works was initiated by a third party (including a customer); or
- > could impact the safety or security of the network.

UNCLASSIFIED**B19 Termination of cable at Zone Substation – Distributor Required Performance*****B19.1. DSNP Provided cable jointing & termination services for contestable work***

Provision of Essential Energy staff to perform cable terminations / joints for contestable works where:

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

Service is in conjunction with but in addition to access permits and clearance to work.

Appendix C: Metering Services

The AER approved charges for metering services are available at essentialenergy.com.au.

C1 Special Meter Reading and Testing (legacy meters)

C1.1. Move in / Move out Read

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 into a site that has been vacant.

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

Charges may also be levied 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 Essential Energy's employee;
- > Late cancellation by retailer;
- > Reconnection/disconnection for short periods, such as for holiday homes.

C1.2. Special Meter Read (including wasted visit)

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.

Essential Energy 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 retailer requests Essential Energy 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 Essential Energy attends a customer's premises for the sole purpose of discharging Essential Energy's obligation to read the customer's meter within the period specified by law (but not where Essential Energy merely chooses to read the customer's meter without being under a legal obligation to do so) and on attending the customer's premises Essential Energy is unable (through no act or omission of Essential Energy), to gain access to the meter; or
- > where Essential Energy and the customer agree on an appointed time at which Essential Energy may attend the customer's premises to enable Essential Energy to discharge Essential Energy's legal obligation referred to in the above paragraph and when Essential Energy attended at the customer's premises at the appointed time Essential Energy (through no act or omission), was unable to gain access to the customer's meter.

Essential Energy will not levy a charge for this service where the service reveals that a scheduled meter reading was inaccurate (as outlined above).

C1.3 & C1.4 Special Meter Test – 1st & additional

The testing of a single Essential Energy meter in accordance with AEMO Metrology Procedure: Part A National Electricity Market. Essential Energy 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, Essential Energy will charge for each meter that a test was requested for; and

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- > if the meter test reveals that one or more of the meters associated with the NMI are not operating satisfactorily, Essential Energy 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 Essential Energy format.

'Meter Test – 1st meter' charge will apply to the first meter tested for a NMI, all subsequent tests at the same NMI will be charged 'Meter Test – each additional meter charge'.

C1.5 Special Meter Test – CT Meter

The testing of a single CT Essential Energy meter in accordance with AEMO Metrology Procedure: Part A National Electricity Market. Essential Energy 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, Essential Energy will charge for each meter that a test was requested for; and
- > if the meter test reveals that one or more of the meters associated with the NMI are not operating satisfactorily, Essential Energy 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 Essential Energy format.

C2 Emergency Maintenance of Failed Metering Equipment (Retailer Owned)

C2.1. Unplanned Outage – Meter Fault (Site Attendance)

Site attendance by Essential Energy to an unplanned outage. Where it is determined that the cause of the fault is directly related to failure or incorrect installation of metering equipment not owned by Essential Energy.

Site attendance required by Essential Energy staff to determine the cause of the interruption.

Service may include the completion of temporary supply arrangements (bypass) and notification to retailer / metering coordinator. This may result in an unmetered supply arrangement at the site.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C2.2. Unplanned Outage – Meter HW Fault (Site Attendance)

Site attendance by Essential Energy to an unplanned hot water outage (No HW). Where it is determined that the cause of the fault is directly related to failure or incorrect installation of metering equipment not owned by Essential Energy.

Site attendance required by Essential Energy staff to determine the cause of the interruption.

Service may include the completion of temporary supply arrangements (bypass) and notification to retailer / metering coordinator.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C2.3. Unplanned Outage – Retailer Outage Impacting Non-Retailer Customer (Site Attendance)

Site attendance by Essential Energy to an unplanned outage. Where it is determined that the un notified customers have been incorrectly isolated by a MC.

Site attendance required by Essential Energy staff to determine the cause of the interruption to un-notified customers.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

UNCLASSIFIED**C2.4. *Unplanned Outage – Remote De-Energisation (Site Attendance)***

Site attendance by Essential Energy to an unplanned outage where it is determined that incorrect isolation by remote de-energisation has caused an interruption to un notified customers.

Site attendance required by Essential Energy staff to determine the cause of the interruption.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C3 Meter Recovery and Disposal – Type 5 & 6 (Legacy Meters)**C3.1. *Redundant Meter Disposal***

Service to manage and dispose of recovered redundant Type 5 and 6 Meters removed by a metering coordinator.

Meters to be returned to an Essential Energy nominated storage facility or depot.

C4 Distributor Arranged Outage for the Purpose of Replacing Meter**C4.1. *Retailer Requested Distributor Planned Interruption – Cancellation after Notification***

Retailer requested Essential Energy notification of customers configured on shared fuse arrangements (non-retailer customers), to facilitate the replacement of retailer owned metering equipment.

Service to complete to customer notifications and attend site for isolation, however retailer / MC cancels outage service order prior to planned interruption day. - no site attendance by EE.

C4.2. *Retailer Requested Distributor Planned Interruption – Initial Visit*

Retailer requested Essential Energy notification of customers configured on shared fuse arrangements (non-retailer customers), to facilitate the replacement of retailer owned metering equipment.

Initial site visit by Essential Energy staff to determine customers impacted by shared fuse isolation.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C4.3. *Retailer Requested Distributor Planned Interruption – Isolation Completed*

Retailer requested Essential Energy notification of customers configured on shared fuse arrangements (non-retailer customers), to facilitate the replacement of retailer owned metering equipment.

Service to complete to customer notifications and Essential Energy staff to attend site for isolation for up to 1 hr.

Additional labour charges may apply to isolations which require Essential Energy staff to attend site beyond the 1 hr allocation.

* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C4.4. *Retailer Requested Distributor Planned Interruption – Early Cancellation*

Retailer requested Essential Energy notification of customers configured on shared fuse arrangements (non-retailer customers), to facilitate the replacement of retailer owned metering equipment.

Service to complete to customer notifications and attend site for isolation, however MC cancels outage post customer notification - no site attendance required by EE.

C4.5. *Retailer Requested Distributor Planned Interruption – MC No Attendance*

Retailer requested Essential Energy notification of customers configured on shared fuse arrangements (non-retailer customers), to facilitate the replacement of retailer owned metering equipment.

Service to complete to customer notifications and attend site for isolation, however MC does not attend site - wasted site visit by EE.

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* Essential Energy will impose an overtime fee for services provided outside the hrs of 7:30am - 4:00pm Mon - Fri (ordinary hrs).

C5 Customer Requested Provision of Additional Metering Consumption Data

C5.1. Provision of Metering Consumption Data

At the request for metering or consumption data by a customer or authorised agent working on behalf of the customer.

Service is to provide metering or consumption data in excess to that provided as regulatory required.

UNCLASSIFIED**Appendix D: Connection Services**

The AER approved charges for connection services are available at essentialenergy.com.au

D1 Premises Connection Assets*D1.1 Part A. Design & Construction of Connection Assets*

Design and construction of premise connection assets which are undertaken by a customer (where these services are provided contestably).

D1.2 Part C. Part Design and Construction of Connection Assets

Part design and construction of connection assets where a customer requests that connection assets are designed and constructed to an increased standard (beyond that required by the distributors' standards and policies), and where those works are designed and constructed by the distributor (as a result of safety, reliability or security reasons).

D2 Extensions*D2.1 Part A. Design & Construction of Extensions*

Design and construction of extensions assets which are undertaken by a customer (where these services are provided contestably).

D3 Augmentations*D3.1 Part C. Design & Construction of Augmentations*

Design and construction of augmentation assets which are undertaken by a customer (where these services are provided contestably).

D3.2. Part D. Part Design & Construction of Augmentations

Design and construction of shared network enlargement/enhancement. Where undertaken by a distributor where a customer requests that assets are designed and constructed to an increased standard (beyond that required by the distributors' standards and policies).

D4 Reconnections / Disconnections*D4.1 Disconnect / Reconnect – Vacant Premise*

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 premise; or
- > a site where the power is on.

If, following a request from a retailer, the reconnection component of this service is provided outside the hours of 7.30am and 5.00pm on a working day, the additional 'Reconnection - outside normal business hours' charge, will apply.

The disconnection/reconnection method will be at Essential Energy'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; or
- > turn off and tag and leave card.

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UNCLASSIFIED**D4.2 Disconnect / Reconnect – (Site visit only)**

A site visit to a customer's premises for the purpose of disconnecting or reconnecting the customer's supply at the request of a

retailer. Disconnection or reconnection does not occur on that occasion, as customer payment is made or it is 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;
- > Breach of Customer Connection Contract has been rectified;
- > Safety of installation or Essential Energy's employee;
- > Late cancellation by retailer;
- > Change of customer or retailer for the NMI.

A site visit may also be charged for reconnections and other retailer requests 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 Essential Energy's employee;
- > Late cancellation by retailer.

D4.3 Disconnect / Reconnect – Pole top / Pillar

A site visit to a customer's premises to disconnect or reconnect the supply of electricity to a customer at the pole top or pillar box, for breach by the customer of their customer retail contract, or for a breach of Essential Energy'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 Essential Energy following a previous disconnection.

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 also apply.

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 Essential Energy's employee;
- > Late cancellation by retailer;
- > Change of customer or retailer for the NMI.

In the cases listed above a 'Disconnection/Reconnection – Site Visit' charge will be applied.

D4.4 Disconnect / Reconnect – Complete

At the request of the retailer, a site visit to a customer's premises to disconnect or reconnect the supply of electricity to a customer for breach by the customer of their customer retail contract or for a breach of Essential Energy's customer connection contract, or where a retailer has requested that the supply to the customer be disconnected.

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

- > rotate plug in meter; or
- > removal / installation of the service fuses; or
- > removal / installation of barge board fuses; or
- > turn off / on and sticker covering main switch; or
- > turn off / on and tag and leave card.

If, following a request from a retailer, the reconnection component of this service is provided outside the hours of 7.30am and 5.00pm on a working day, the additional 'Reconnection - outside normal business hours' charge, will apply.

UNCLASSIFIED**D4.5 *Disconnection – Technical Disconnection***

At the request of the retailer, a site visit to a customer's premises to disconnect or reconnect the supply of electricity to a customer for breach by the customer of their customer retail contract or for a breach of Essential Energy's customer connection contract, or where a retailer has requested that the supply to the customer be disconnected.

The disconnection / reconnection method will be at Essential Energy's discretion and will involve a method not identified as a disconnection method for Disconnection/Reconnection – Disconnection completed (e.g. pull load tail out of meter).

If, following a request from a retailer, the reconnection component of this service is provided outside the hours of 7.30am and 5.00pm on a working day, the additional 'Reconnection - outside normal business hours' charge, will apply.

D4.6 *Reconnect – Outside of Normal Business Hours*

At the request of the retailer:

- > The provision of the reconnection 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 5.00pm on a working day, or
- > the reconnection of electricity to a new customer outside the hours of 7:30am and 5:00pm on a working day
- > Essential Energy may be notified to conduct this service via the use of the 'Re-energisation' B2B service order.

D4.7 *Illegal Connections*

Work undertaken by Essential Energy to the property of Essential Energy or to the property of another person in order to:

- > investigate
- > de-energise and/or make safe the assets,
- > inspect the assets following repair.

Following 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 Essential Energy's distribution system.

The assets will remain de-energised until an ASP has repaired the damaged assets (at the customer expense) and Essential Energy has inspected the repaired assets.

D5 Non-Standard Connection Services**D5.1 *Non-standard Connection Services***

Customer requested connection services include:

- > asset relocations;
- > mains conversions;
- > work deemed non-contestable due to safety or security reasons (where the connection is fully dedicated to the specific customer) i.e. within a zone substation;
- > inspection, maintenance and testing (including F&E) of customer assets including HV assets;
- > included both sub transmission and distribution assets.

UNCLASSIFIED**Appendix E: Pioneer Schemes**

In accordance with the AER Connection Charge Guidelines, connection applicants may be required to make a contribution (payment) towards connection works that provide a connection to their premises and which were previously funded by another customer (within a seven 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 the length of distribution lines as well as a pre-calculated share of any distribution substation.

For new connections over 50kVA, 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.

E1 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 works (as defined in clause E2.1).

E2 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 that are network extensions (original customer's works); and
- b. within seven 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 requests customer connection services from Essential Energy; and
- c. in order to provide those customer connection services to the new customer, Essential Energy 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 Essential Energy 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 or less than 50kVA, 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 50kVA, 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).

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UNCLASSIFIED*E2.3 Pre-calculated Refund*

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

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

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

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

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

E2.4 Pro-rata Refund

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

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

UNCLASSIFIED**E2.5 Original Customer's Outstanding Amount**

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

Cost of original customer's works x Depreciation Factor

x

Number of prospective new customers

Number of prospective new customers + original customer

x

CPI(2)

CPI(1)

less

Total cost share refunds paid by new customers to Essential Energy in respect of those

works as at date of the 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 a cost share refund if the total amount payable to all customers already connected is less than \$1,000 plus CPI.

\$1,000 + CPI

Where CPI = CPI(2)/CPI(3) (see clause E2.7)

E2.7 CPI Adjustments

Despite any other provisions in E2 of this appendix:

- a. 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
- b. 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).

Cost of original customer's works means:

- a. where Essential Energy carried out the original customer's works as an *ASP*, the cost (based on actual cost) of performing those works to the least cost technically acceptable standard; and
- b. where an *ASP* carried out the original customer's works, the estimated amount that Essential Energy would have charged to carry out those works to the least cost technically acceptable standard.

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CPI (1) means the average of the consumer price indices (all groups, all capital cities), published by the Australian Bureau of Statistics, for the four quarters immediately prior to the date the original customer's works 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 four quarters immediately prior to the 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 four previous quarters ending 30 June 2012.

New utilisation of original customer's works means:

- c. 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 the original customer's works used by the new customer, in kilometres; and
- d. 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 (excluding the original customer) that Essential Energy 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 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 kilometres; and
- b. where the original customer's works are works other than a distribution line, a figure in kVA, representing the total 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).

E3 Refunds

1. Where a new customer pays to Essential Energy an amount under E2 of this appendix, Essential Energy will, as soon as practicable after receiving that amount, repay that amount to the 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 Essential Energy requiring those customers to procure and fund their common works together, the repayment by Essential Energy referred to in E3(1) must be divided between those customers in accordance with the proportions in which they funded the works.

UNCLASSIFIED**E4 Obligation to Notify**

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

E5 Depreciation Factor

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

The depreciation factor is to be determined as follows:

$$(Deemed\ asset\ life\ (20\ years) - asset\ age) / Deemed\ life\ (20\ years)$$

For example:

A distribution line cost \$12,000 and has an actual asset age of 2 years.

$$\begin{aligned} \text{Depreciation Factor} &= (20 - 2)/20 \\ &= 0.9 \end{aligned}$$

$$\begin{aligned} \text{Depreciated Asset value} &= \$12,000 \times 0.9 \\ &= \$10,800 \end{aligned}$$