

# Essential Energy Connection Policy – Connection Charges for electricity retail customers

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## UNCLASSIFIED

### 1. Introduction

This document sets out the circumstances in which Essential Energy requires a Retail Customer, including a Real Estate Developer, to pay a connection charge and the basis for determining such charges, for the provision of a Connection Service under Chapter 5A (Electricity Connection for Retail Customers) of the National Electricity Rules (NER).

This document does not apply to the charging for connections to Essential Energy's Network by registered participants or intending registered participants in the wholesale market, which is covered by the provisions of Chapter 5 of the NER. (Generator connections under Chapter 5 are referred to Essential Energy document CEOP8079 Connection guidelines: High Voltage Customers and embedded generators.)

Generation sites greater than 30kW that absorb system reactive power (measured in VARs) at a ratio greater than 4.84 kVAr absorbed to 10 kW exported must be referred to Essential Energy for further evaluation. Without written acceptance from Essential Energy, these installations will be subject to a Negotiated Offer or, under certain conditions, maybe subject to application of Essential Energy document CEOP8079 Connection guidelines: High Voltage Customers and embedded generators.

To the extent applicable, this document is consistent with 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, published by it under chapter 5A of the NER (Retail Connection Charge Guidelines); and
- Any determination of the AER in relation to the fees that Essential Energy can charge for Ancillary Network Services.

As a general rule, Retail Customers will pay the costs of providing and installing the connection assets dedicated to the Customer from the Customer's Premises (installation or development) up to a defined point of connection on Essential Energy's Network, known as the Linkage Point. Essential Energy will carry out and fund Network Augmentations on the shared assets beyond the Linkage Point; except for Rural Customers and Large Load Customers which will usually be required to fund these works.

This policy should be read in conjunction with the following documents:

- CEOP8020 – Pioneer Scheme: Rural and Large Load Customers;
- CEOP2015 - General Terms and Conditions: Supply of Electricity to New Subdivisions and Site Developments;
- NSW Service and Installation Rules;
- CEOP8079 – Connection Guidelines: For High Voltage Customers and Embedded Generators; and
- CEOP8012 – Generation Connection: Protection Guidelines.

Capitalised terms appearing in this document have the meaning given to them in the body of this Policy or in section 7 of this Policy.

#### 1.1 Customer Costs

Customers should not assume that sufficient capacity, or the required number of phases, will be available at the proposed point of supply, particularly in rural locations, to accommodate their connection.

Essential Energy generally carries out and funds Network Augmentations on the shared Network beyond the Linkage Point. However, certain customers above a threshold set by Essential Energy will also be required to make a capital contribution towards the cost of the Network Augmentation of Essential Energy's shared Network, which is required to enable the Connection to be made.

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Capital contributions for these works will be in accordance with the AER Connection charge guidelines for electricity retail customers under chapter 5A of the National Electricity Rules and are described in section 3 of this policy.

All customers will be required to pay Essential Energy Connection Charges which are the fees for ancillary network services associated with their connection. These fees relate to the services, such as inspections, that Essential Energy must carry out to facilitate the design and construction on a Contestable basis of Premises connection assets, extensions and augmentations by ASPs. These services and fees are explained in detail in section **Error! Reference source not found.**

Customers who propose to connect to a part of the Network funded by another Customer in the previous 7 years (a pioneer scheme) may be required to make a payment to connect to the pioneer scheme as explained in detail in section 6.

### 1.2 Contestability of Connection Works

Under 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 construct those Contestable works. The ASP must be suitably accredited under the NSW Accreditation Scheme and authorised to work on or near Essential Energy's Network.

Essential Energy may determine at any time that certain Connection Works or portions thereof that would normally be provided in NSW in a competitive or Contestable market will not be made Contestable. Essential Energy will make this determination based on risk management principles, related to certain criteria such as safety, Network security and reliability of supply to Customers. These works will be carried out by Essential Energy and funded by the Customer.

## 2. Types of Connection

The charges a Customer might face associated with a new Connection or Connection Alteration will depend upon Essential Energy's classification of the Connection. These are explained below.

### 2.1 Basic Connection Service

A basic connection service means a Connection Service related to a Connection (or a proposed Connection) between Essential Energy and a Retail Customer's Premises (excluding a non registered embedded generator's Premises or a Real Estate Developer). A basic Connection Service does not require Network Augmentation to facilitate the Connection.

Essential Energy has developed two model standing offers to provide basic Connection Services. These are:

1. a basic connection service for Retail Customers who do not have Micro EG; and
2. a basic connection service for Retail Customers who have Micro EG.

These offers are usually applicable to single residential Premises, small commercial Premises and small Multi Occupant Developments.

A basic connection service does not require Network Augmentation to facilitate the Connection and as a result, the Customer will only be liable for the Connection Charges associated with Connection of their Premises Connection Assets to the Network as Contestable works.

The work required to install or alter the Customer's Premises Connection Assets (i.e. the service line and the type 5 meter) is Contestable and will be carried out by the Level 2 ASP engaged by the Customer. The Connection Cost for this work is payable to the ASP.

The relevant criteria for the basic connection services are identified in the table below.

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Essential Energy Connection Service	Connection Approval Process	Basic Offer Without Micro Embedded Generation	Basic Offer With Micro Embedded Generation
1. Urban and commercial loads of ≤100 amps 230 volt single phase connection or ≤63 amps 400 volt three phase connection with no augmentation required to the Network	Automatic approval of expedited application	X	
2. All other Low Voltage (LV) loads not requiring a Network Augmentation	Requires Essential Energy review before approval	X	
3. Embedded Generator with ≤3kW system for Rural Customers and <5kW system for Urban Customers with no Network Augmentation*	Automatic approval of expedited application		X
4. Embedded Generator with >3 KW system for Rural ≥5 KW system Urban and ≤30kW system with no Network Augmentation*	Requires Essential Energy review before approval		X

Table 1 – Basic Connection Services \* Thresholds are based on total generation capacity.

**2.2 Standard Connection Service**

A standard Connection Service means a Connection Service (other than a basic connection service) for a particular class of Connection Applicant. This service may require Network Augmentation to facilitate the Connection.

Essential Energy has developed two model standing offers to provide standard connection services. These are:

1. A standard connection service for Retail Customers who do not have Micro EG; and
2. A standard connection service for Retail Customers who have Micro EG.

These offers are applicable to Rural Customers, large Multi Occupant Developments, and large commercial and industrial developments.

Customers who receive one of Essential Energy’s standard Connection Offers will be liable for the Connection Charges associated with their Premises’ Connection assets. The work required to design and construct these works is Contestable and will be carried out by the Level 3 and Level 1 ASPs engaged by the Customer. The Connection Cost for the Contestable Connection Works is payable directly to the ASP.

The augmentation or extension of the Network will be determined in accordance with the specific charging principles outlined later in this Policy.

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The relevant criteria for the standard connection services are identified in the table below.

Essential Energy Connection Service	Approval Process	Standard Offer Without Embedded Generation	Standard Offer With Micro Embedded Generation
5. LV Standard Connection service - Any service that does not meet the requirements of the LV Basic Connection service and requires Network Augmentation	Requires Essential Energy review before approval	X	
6. Embedded Generator with ≤30kW system with Network Augmentation*	Requires Essential Energy review before approval		X
7. Large Embedded Generator >30kW system with or without augmentation to the LV network	Requires Essential Energy review before approval		X

Table 2 - Standard Connection service \* Thresholds are based on total generation capacity.

**2.3 High Voltage Connection Services and Large Embedded Generation**

Essential Energy has Connection Contracts available for Connection for non-basic or standard Connection Services. These are:

1. a high voltage (HV) standard Connection Service for Large Load Customers (who may or may not have embedded generation); and
2. an HV standard Connection Service for Customers who have large embedded generators (in that they will be Registered Participants or intending Registered Participants as defined in the National Electricity Rules) in which case the charging principles, including section 6 of this Policy will not apply.

HV standard contracts will also act as the Customer’s ongoing Connection Contract once the Customer starts taking or delivering energy to or from the Network (refer CEOP 8079 Connection Guidelines: For High Voltage Customers and Embedded Generators).

**2.4 Negotiated Connection**

A Connection Applicant and a DNSP may negotiate a Connection Contract (a negotiated connection contract) where:

1. the Connection Service sought by the Connection Applicant is neither a basic Connection Service nor a standard Connection Service, or
2. the Connection Service sought by the Connection Applicant is a basic Connection Service or a standard Connection Service but the Connection Applicant elects to negotiate the terms and conditions on which the Connection Service is to be provided, or,
3. the Connection Service sought by the Connection Applicant contains generation greater than 30kW that absorb system VARs at a ratio greater than 4.84 kVAr absorbed to 10 kW exported, that do not have Essential Energy written approval to be a basic Connection Service or a standard Connection Service.

The negotiations may, if the Connection Applicant elects, extend to ongoing Connection Services available from the DNSP. For more information on negotiated contracts, the process for negotiation and the fee applicable, the applicant can refer to Essential Energy’s Negotiation Framework on [essentialenergy.com.au](http://essentialenergy.com.au).



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### 3. Applicable Connection charges and capital contribution thresholds

#### Connection charges

A Customer must pay to Essential Energy all fees and charges in relation to the Connection Services provided by Essential Energy in order for the Customer to connect. These services are known as Ancillary Network Services and are set out in section 4 of this Policy.

#### Capital contributions

A capital contribution is payable where a Customer is required to make a monetary contribution to the costs of connecting to Essential Energy's network. In NSW, Customers make capital contributions in relation to:

1. Connection Works which are required for the Customer and are dedicated to the Customer's supply of electricity (such as connection assets and extensions); and
2. Connection Works which are required for the Customer to connect but which are shared with other Essential Energy Customers (i.e. Network Augmentations).

All Connection Works which are dedicated to the Customer are Contestable and are funded by the Customer who is responsible for paying the relevant ASP.

Whether a Customer is required to fund Connection Works which relate to Network Augmentations is determined by whether the Connection exceeds a Capital Contribution Threshold. Chapters 5A and 6 of the NER and the AER's Retail Connection Charge Guideline outline the circumstances when a Customer must make a capital contribution in relation to new Connection or a Connection Alteration that requires an augmentation of Essential Energy's Network.

Consistent with those regimes, the following capital contribution thresholds and conditions apply to capital contributions for new Connections and Connection Alterations requiring augmentation of Essential Energy's Network. A Customer (other than a Real Estate Developer or a Non-registered Embedded Generator) is not required to fund Connection Works below any of the capital contribution thresholds. If the Customer is a Real Estate Developer or Non-registered Embedded Generator, the Customer must fund all Connection Works regardless of whether a capital contribution threshold applies to the Customer.

In circumstances where a Customer is required to make a capital contribution towards a Network Augmentation, Essential Energy may decide to fund the Network Augmentation in which case the service provided by the relevant network assets is known as a "standard control service". The revenue which Essential Energy can earn for standard control services is regulated by the AER and in these circumstances, Essential Energy does not require the Customer to make a capital contribution as the incremental cost of providing the standard Connection Service does not exceed the incremental revenue expected to be derived from the service.

#### 3.1 Capital Contribution relating to Urban Network Substations

If the LV distribution Network is not capable of supplying the electrical load of the Customer's development, one or more new substations or additional substation capacity will need to be established on the Premises of the development or in the vicinity of the Premises (at Essential Energy's discretion) These are known as Customer substations. They will be designed to be the minimum size or accommodate the minimum number of transformers necessary to supply the ultimate forecast load requirements of the development. For example, a new large Multi Occupant Development would typically require a new substation(s) to be established on the Customer's Premises.

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Instead of a Customer substation, the Customer may be required to fund or partially fund::

- the installation of a new substation and/or the augmentation of substations and LV mains on the supply side of the Linkage Point in an Urban Network where the Customer requires 200 Amps or less; or
- the installation of a dedicated pole substation up to a maximum capacity of 500kVA installed in an Urban Network external to the property on a public roadway.

**Dedicated Customer Substations:** Where a Customer substation is required to be installed in an Urban Network to meet the requirements of the Customer's development and the ultimate load of the Customer's development is greater than 50% of the substation's nameplate capacity, the Customer will be required to fund a dedicated Customer substation, (except for Essential Energy's funded equipment, see clause 3.7). The Customer must also fund:

- the dedicated HV mains from the Linkage Point to the substation. 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; and
- the substation building, construction for chamber substations; and any site preparation works, including special foundations, footings, piers, retaining walls and railings for kiosks.

**Shared Customer Substations:** Where a Customer substation is required to be installed in an Urban Network, but the ultimate load of the Customer's development is 50% or less of the substation's nameplate capacity, Essential Energy will fund a shared Customer substation including the HV mains from the Linkage Point to the substation. The Customer must provide a suitable substation site on their Premises as near as possible to the street frontage and fund certain Connection Works, including necessary easements.

Should the development providing the substation accommodation require increased load in the future, and the total development load then exceeds 50% of the substation's nameplate capacity, the Customer will be liable for the cost of reconnecting some or all of the load external to the Premises.

A pioneer scheme may apply to Connection Works or Network Augmentation works funded by Customers where additional customers subsequently connect to the augmented network as outlined in section 6 of this Policy.

### 3.2 Rural Customers

Rural Customers are those connected, or to be connected, to the Rural Network. The Rural Network includes the parts of a Network:

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

Essential Energy will fund any increase necessary to the shared part of a Rural Network that is unable to adequately supply any new or existing Rural Residential Customer, provided that their load does not exceed 16kVA (63amps) single phase.

Rural Customers must otherwise fund any Connection Works and any Network Augmentation that is specific to the Customer as assessed by Essential Energy, including any dedicated Customer substation equipment e.g. the transformer and HV switchgear.

A pioneer scheme may apply to Connection Works or Network Augmentation works funded by Rural Customers where additional customers subsequently connect to the augmented network as outlined in section 6 of this Policy.

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### 3.3 Large Load Customers

A Large Load Customer means a Customer connected, or to be connected, to the Urban Network whose expected load (as specified in its application for Customer Connection Services) is more than 50% of the nameplate/feeder capacity of any existing asset that is to be increased, as those assets exist immediately before Essential Energy makes its final decision on the Customer's Application.

For the purposes of determining Large Load Customer status the expected load detailed above should comprise the sum of existing load and proposed additional load, including any definitive plans for expansion in the near future.

When determining the asset capacity the following should be considered:

- for a transformer – the nameplate rating should be used; and
- for a feeder – a notional capacity is calculated by stripping all existing loads from the feeder and applying a load at the proposed point of connection and increasing the load until the voltage or current constraint is reached. In urban areas the voltage constraints are 5% for HV and 4% for LV.

When a Customer applies for supply where the total load is greater than 50% of the rating/capacity of an existing asset (Total Load = Existing Customer Load + Additional Requested Customer Load), then the augmentation of the existing asset is considered Connection Works and the customer must fund those Connection Works. The Connection Works are Contestable and the Customer engages and pays and ASP for the works. The amount payable to the ASP is not covered by this Policy.

A pioneer scheme may apply to Connection Works or Network Augmentation works funded by Large Load Customers where additional Customers subsequently connect to the augmented network as outlined in section 6 of this Policy.

### 3.4 HV Interconnectors

A HV interconnector is formed when two separate parts of the existing HV Network are connected with feeders installed through one or more substations on a Customer's Premises.

The construction of the HV interconnector is undertaken by an ASP as Contestable Connection Works and therefore the Cost of the Connection Works is determined by the ASP and payable to the ASP.

Essential Energy will contribute to the cost of the interconnector where there is some clear benefit to its general Network and/or to other Customers. In these circumstances, the Customer will fund the leg of the interconnector along the route of the connection that would have been formed had an interconnector not been installed, and Essential Energy will fund the remaining leg of the interconnector.

### 3.5 Shared HV Connection Works

Essential Energy will consider the potential for any new dedicated 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 mains extension of, the original mains extension. If at the time the original Connection Application is received by Essential Energy, there is a reasonable likelihood of such asset sharing taking place in the foreseeable future, then the original mains extension will be classed as Network Augmentation and will be funded by Essential Energy.

### 3.6 Gifting of customer-funded Works

Contestable Connection Works and/or Network Augmentation funded by the Customer may, upon acceptance, be transferred to Essential Energy who will then operate and maintain the asset.

### 3.7 Essential Energy Funded Works

Essential Energy will fund certain equipment in dedicated Customer substations that satisfies all of the following criteria:

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- it is HV equipment;
- it supplies a Multi Occupant Development;
- it does not supply a Large Load Customer;
- it connects to an Urban Network; and
- it is capable of being physically moved and usefully employed in another location (whether or not this is likely to occur).

Typically, this will be the transformer and HV switchgear. Any LV reticulation supplying Customers external to a development will be funded by Essential Energy where the reticulation asset is shared. For example, a LV distributor (interconnector) to the Network from a Customer substation, with the exception outlined in clause 3.1.

The Customer will however, be required to fund these works for Connections that Essential Energy considers uneconomic.

### 3.8 Guarantee of Revenue (GoR) (Security Fee)

In accordance with Chapters 5A and 6 of the NER and the Retail Connection Charge Guideline, Essential Energy will require a Customer to provide a financial guarantee or Guarantee of Revenue (GoR), where their Connection requires substantial Essential Energy funded Network Augmentation and:

- which is initially only for the Customer's benefit; and
- in relation to which Essential Energy is of the view that there is a high risk that Essential Energy will not earn the estimated incremental revenue.

The GoR is a financially binding legal agreement between Essential Energy and the Customer where the Customer guarantees the payment to Essential Energy of a minimum level of Network revenue each year for the duration of the GoR, to make up any shortfall in their actual 'Network use of system' charges over the period, usually between 5 and 10 years depending upon the circumstances.

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 being initiated. This will allow the Network Augmentation to proceed in parallel with the associated Contestable works.

The GoR is secured by a bank guarantee provided by the Customer for no more than the value of the incremental costs Essential Energy will incur in undertaking the Network Augmentation, or other suitable financial instrument as agreed by Essential Energy. As a last resort, Essential Energy is entitled to withdraw from the bank guarantee any shortfall in actual Network use of system payment, in accordance with the terms of the GoR and the bank guarantee.

### 3.9 Customer Requested Alternative or Additional Connection Works

The Customer must fund any additional costs incurred by Essential Energy when requesting any alternative or additional Connection Works to the standard Essential Energy construction. This includes the additional cost of any alternative or additional HV equipment that would otherwise be funded by Essential Energy in accordance with clause 3.6.

### 3.10 Recoverable Works

Recoverable Works are those capital works completed by Essential Energy at the request of individuals or organisations, which are not for the purpose of establishing a new Connection to the system or expanding the existing Network. They include works such as:

- relocation of assets on a Customer's (or Real Estate Developer's) property, in a road reserve, etc, at the request of the Customer (or developer) e.g. shifting a power line, pole, substation or service pillar to suit site developments;
- reinstatement of electrical assets following works by other services, e.g. roadworks;

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- repairs to the Network following vehicle impacts or other damage accidentally by individuals or organisations; and
- removal of assets.

Recoverable Works are generally Contestable, except where unsafe conditions or needless delay in the restoration of supply could result from such work, or where Essential Energy's commitment forms a significant component of the project cost.

In these instances Essential Energy is able to recover reasonable costs associated with the works. This ensures other Customers are not burdened by the costs which can be identified with specific parties, and which reflect requirements by those parties for variations in services.

There are some advantages to Essential Energy Networks in acquiring newly constructed system assets from the Customer to replace existing systems assets and benefit sharing with the Customer is therefore appropriate.

### 3.11 Site Inspection

If Essential Energy reasonably needs to make a site inspection in order to determine the nature of a Connection Service sought by a Connection Applicant, Essential Energy may charge its reasonable expenses for doing so.

The fee will be calculated in accordance with the AER approved monopoly services charge - labour rates R2.

### 3.12 Negotiation Fee

Where a Customer's application relates to a negotiated connection contract, Essential Energy may charge a Customer a negotiated connection fee to cover its reasonably incurred expenses in assessing the application and making the negotiated connection offer.

Essential Energy requires an upfront payment of \$250 to assess an application prior to the commencement of negotiations, for HV and embedded generator connections please refer to CEOP8079.

Following initial assessment of the connection application Essential Energy will provide the Connection Applicant with an estimate of the charges for making a Connection Offer for a negotiated Connection Contract. Any charges to be imposed by Essential Energy will be based on the costs reasonably incurred in negotiating the contract with the Connection Applicant and will include the costs of facilitating and contributing to the negotiation process, liaising with subject matter experts, preparation of related information and documents, direct legal costs of finalising the contracts and independent review.

Once negotiating have been completed, Essential Energy will bill the Connection Applicant for outstanding amounts in a final invoice with the Connection Offer. The Connection Applicant will be liable to pay all invoiced costs whether or not the final Connection Contract is agreed or accepted.

Following initial assessment of the Connection application Essential Energy will provide the Connection Applicant with an estimate of the charges for making a Connection Offer for a negotiated Connection Contract. Any charges to be imposed by Essential Energy will be based on the costs reasonably incurred in negotiating the contract with the Connection Applicant and will include the costs of facilitating and contributing to the negotiation process, liaising with subject matter experts, preparation of related information and documents, direct legal costs of finalising the contracts and independent review.

Once negotiations have been completed, Essential Energy will bill the Connection Applicant for outstanding amounts in a final invoice with the Connection Offer. The Connection Applicant will be liable to pay all invoiced costs whether or not the final Connection Contract is agreed or accepted.

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### 3.13 Metering Services

Other than the metering related ancillary network services, the only other relevant metering service provided by Essential Energy is the provision of the meter required for the Connection. The customer is required to fund the the cost of the meter. The charge payable by the Customer is called a new or upgraded metering charge. It is approved by the AER for each financial year and published on Essential Energy's website.

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

### 3.14 Other Costs

To the extent permitted by law, the Customer will be responsible for any unforeseen costs related to Connection Works. This could include Connection Works unable to be performed by the ASP, eg. Live Line connections.

### 3.15 Estimating Customers' Consumption and Demand

Essential Energy is required under the AER Guideline to specify how it intends to estimate a Connection Applicant's consumption and demand. Generally, these estimates will be based primarily upon the content of the application for Connection submitted by the customer. However, Essential Energy reserves the right to use other methodologies where the information is not consistent with similar customer types, or, where the existence of Network constraints, emerging or otherwise, require engineering intervention to manage the impacts on its Network.

## 4. Ancillary Network Services

Ancillary network services are services that only Essential Energy can perform, which facilitate Contestable Connection Works carried out by ASPs. 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 the rates and conditions.

The charges for ancillary network services are identified in our document "Price schedule for Ancillary Network Services" which can be found on our website at: [essentialenergy.com.au](http://essentialenergy.com.au). Essential Energy may seek upfront payment of ancillary network services fees that apply to the preapproval phase of a connection if the total of those fees is greater than \$5,000.

In Appendix B is a summary of the ancillary network services.

## 5. Dispute Resolution

The Customer is entitled to seek to have the AER determine a dispute it has with Essential Energy. Details of how the AER will determine the dispute or terminate proceedings are set out in Part G of Chapter 5A of the NER.

Essential Energy suggests that Customers first attempt to resolve the dispute with Essential Energy in accordance with our Complaints and Dispute Resolution Procedure. Details of how a Customer may apply for review of our decision-making and how Essential Energy will conduct the review are available on Essential Energy's website: [essentialenergy.com.au](http://essentialenergy.com.au).

If Customers are not satisfied with the internal review by Essential Energy, then Essential Energy suggests that small Customers approach the Electricity & Water Ombudsmen NSW (EWON) for NSW Customers and the Energy and Water Ombudsman Queensland (EWOQ) for Queensland Customers to resolve the matter, before taking the matter to the AER.

Energy and Water Ombudsman of New South Wales:

Freecall: 1800 246 545

Freefax: 1800 812 291

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Mail Reply Paid Box K1343, Haymarket NSW 1239  
E-mail: [omb@ewon.com.au](mailto:omb@ewon.com.au)

Or,

Queensland Energy Ombudsman on:  
Freecall: 1800 662 837,  
Freefax: 1800 812 291,  
Mail: PO Box 3640 South Brisbane Qld 4101,  
E-mail: [complaints@ewoq.com.au](mailto:complaints@ewoq.com.au) or [info@ewoq.com.au](mailto:info@ewoq.com.au);

## 6. Pioneer Schemes

A pioneer scheme applies under Part E of Chapter 5A of the NER and the AER's Connection Charge Guidelines for Electricity Retail Customers. The pioneer scheme requires Customers to make reimbursements for Connection Works that provide a Connection to their Premises and which have been previously funded by another Customer (within a 7 year period). This section should be read in conjunction with CEOP 8020 – Shared Asset Pioneer Scheme.

### 6.1 Applicability

This section 6 applies to all Connection Works and Network Augmentations which were funded by a Customer and which will be used by another Customer to connect to Essential Energy's network within 7 years from the original Connection.

### 6.2 Establishment and Administration of Schemes

A pioneer scheme will be established and administered in accordance with this section 6 in relation to each original Customer's works (as defined in clause 6.3) of the same category. For example, if the original Customer's works included a distribution line and a substation, then one pioneer scheme will be established for the distribution line and a separate pioneer scheme will be established for the substation.

Essential Energy will bear the cost of establishing and administering the pioneer schemes.

### 6.3 Contributions by Subsequent New Customers Towards Connection Works or Network Augmentations

Where:

- (a) a Customer (the original Customer) procures and funds, or becomes liable to procure and fund Connection Works or Network Augmentations (original Customer's works); and
- (b) within 7 years of the date of the construction or installation of the original Customer's works (pioneer 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 or Network Augmentations 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 6.4.

### 6.4 Calculation of Cost Share Reimbursement under the Pioneer Scheme

All calculations for reimbursement are in accordance with Appendix A.

Despite any other provision of this section 6, Essential Energy is not liable to pay any cost share reimbursement if the total refund to all Customers already connected to an extension is calculated to be less than \$1000 (indexed by CPI with a base year of 2012).

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**6.5 Reimbursements**

- (1) Where a new Customer pays to Essential Energy an amount under this section 6, Essential Energy will, as soon as practicable after receiving that amount, repay that amount to the then current owner of the Premises to which the original Customer's works were connected.
- (2) Where there are two or more Customers constituting the original Customer, as a result of Essential Energy requiring those Customers to procure and fund their common works together, the repayment by Essential Energy must be divided between those Customers in accordance with the proportions in which they funded the works.

**6.6 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 reimbursements 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 reimbursement.
- (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 reimbursement.

**7. Key Terms and Definitions**

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

<b>WORD/TERM:</b>	<b>DEFINITION:</b>
ASP	means an accredited service provider, being a person accredited under Part 10 of the Electricity Supply (General) Regulation 2001 (NSW).
Basic Micro EG Connection Service	means a basic connection service for a Retail Customer who has a Micro EG up to and including 30kW.
Connection	means a physical link between a distribution system and a Retail Customer's Premises to allow the flow of electricity.
Connection Alteration	means an alteration to an existing Connection including an addition, upgrade, extension, expansion, augmentation or any other kind of alteration.
Connection Applicant	means an applicant for a Connection Service of 1 of the following categories: (a) Retail Customer; (b) retailer or other person acting on behalf of a Retail Customer; (c) Real Estate Developer.
Connection Charge	means a charge imposed by a DNSP for a Connection Service.
Connection Contract	means a contract formed by the making and acceptance of a Connection Offer.
Connection Cost	is the cost of providing Connection Works.



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<b>WORD/TERM:</b>	<b>DEFINITION:</b>
Connection Offer	means an offer by a DNSP to enter into a Connection Contract with: (a) a Retail Customer; or (b) a Real Estate Developer.
Connection Point	the agreed point of supply established between Essential Energy and a Customer
Connection Service	means either or both of the following: (a) a service relating to a new Connection for Premises; (b) a service relating to a Connection Alteration for Premises.
Connection Works	<p>In relation to a new Connection, means those works yet to be constructed which will, upon construction:</p> <ul style="list-style-type: none"> <li>(a) enable the DNSP to provide Customer Connection Services requested by that new Customer; and</li> <li>(b) form part of the Network on the side of the Linkage Point where all the Network assets on that side are dedicated to one or more Customers.</li> </ul> <p>In some cases this may include Network Augmentation of the shared Network from the proposed Connection Point back to the point of Network capable of supporting the load.</p> <p>These include (without limitation):</p> <ul style="list-style-type: none"> <li>(c) in the case of services to new connection points (as defined in the National Electricity Rules) requested by a new customer, works to connect the Customer's Premises at that Connection Point to the existing Network; and</li> <li>(d) in the case of services to existing Connection Points: <ul style="list-style-type: none"> <li>(i) replacements of existing assets servicing that Connection Point, where those existing assets, at the time of their replacement, satisfy (a) and (b) above; or</li> <li>(ii) additional new works that satisfy (a) and (b) above in relation to that Connection Point,</li> </ul> </li> </ul> <p>in order to provide additional service at that Connection Point requested by the new Customer.</p>
Contestable	means a service permitted by the laws of New South Wales to be provided by more than one supplier as a contestable service or on a competitive basis.
Customer	means a Retail Customer or Real Estate Developer
Customer Connection Contract	means a Deemed Standard Connection Contract.

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WORD/TERM:	DEFINITION:
Customer Connection Services	<p>means any of the following services:</p> <ul style="list-style-type: none"> <li>• the connection of any Premises to a DNSP's distribution system;</li> <li>• an increase in the maximum capacity of any Premises' existing connection to a DNSP's distribution system;</li> <li>• the capability for electricity to be supplied to any Premises from a DNSP's distribution system;</li> <li>• and includes services of a kind prescribed by the regulations as being within this definition.</li> </ul>
DNSP	means a Distribution Network Service Provider.
Essential Energy	<p>means Essential Energy (ABN 37 428 185 226 - a statutory state-owned corporation incorporated under the Energy Services Corporation Act 1995 (NSW)) having the contact details as follows Address: PO Box 5730, Port Macquarie NSW 2444 Phone: 13 23 91, who provides the Customer with Customer Connection Services.</p>
Large Load Customer	<p>means a new Customer or existing Customer whose expected load (as specified in its application for Customer Connection Services that will require Network Augmentation) is more than 50 per cent of the capacity of any existing asset that is to be augmented, as those assets exist immediately before the DNSP makes its final decision on the Customer's application. Refer to CEOP8019 for further details.</p>
Linkage Point	<p>means a point on a Network at which the use of assets changes from being dedicated to being shared among Customers generally. Assets are considered to be dedicated if they are:</p> <ul style="list-style-type: none"> <li>• Used by one Customer exclusively, or</li> <li>• Shared by more than one Customer in circumstances where a DNSP has required that those Customers together procure and fund the same Connection Works.</li> </ul>
Micro EG	<p>means a connection between an embedded generating unit and a distribution Network of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters) up to and including 30kW.</p>

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WORD/TERM:	DEFINITION:
Multi Occupant Development	<p>means:</p> <ul style="list-style-type: none"> <li>• a building or proposed building that is under strata title, or</li> <li>• a building or proposed building, or set of such buildings, in relation to which distinct parts are occupied or designed to be occupied, by 2 or more separate businesses or residences or for other separate purposes, or</li> <li>• a subdivision of one or more lots for the purposes of sale or disposal whether residential, commercial or industrial and in respect of which the application for Customer Connection Services is made by one Customer only.</li> </ul>
Network	means an electricity distribution system owned or controlled by a DNSP.
Network Augmentation	means works to enlarge or increase the capability of the distribution network.
Original Customer	for the purposes of Pioneer Schemes, includes 1 or more Customers where a DNSP has required that those Customers together procure and fund the same common works in accordance with Clause 6 of this policy. All references to the original Customer for the purpose of counting the number of Customers are to be read as references to the actual number of Customers comprising the original Customer.
Premises	means the Customer's premises and includes any building or part of a building, any structure or part of a structure, any land (whether built on or not) and any river, lake or other waters.
Premises Connection Assets	means the components of a distribution system used to provide Customer Connection Services.
Real Estate Developer	means a person who carries out a real estate development.
Retail Customer	includes a non-registered embedded generator and a micro embedded generator.
Rural Customer	means a Customer whose Premises are connected or will connect (once any relevant Connection Works are constructed) to a Network at a point at which the Network is a Rural Network.
Rural Residential Customer	for the purpose of this document means a Rural Customer whose Premises is used wholly or principally as a private dwelling.
Rural Network	<p>for the purpose of this document means that part of a Network:</p> <ul style="list-style-type: none"> <li>• where the average demand on the HV feeders within it is less than 0.3 MVA/km, or</li> <li>• that is in an area zoned as rural under a local environment plan</li> </ul>

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WORD/TERM:	DEFINITION:
	(made under the Environmental Planning and Assessment Act 1979 (NSW), or <ul style="list-style-type: none"> <li>that is in an area that is predominantly used for agricultural purposes.</li> </ul>
Urban Customer	means a Customer whose Premises are connected or will connect (once any relevant Connection Works are constructed) to a Network at a point at which the Network is not a Rural Network.
Urban Network	means that part of a Network that is not a Rural Network.

**8. References**

- CEOM7097 – Overhead: Design Manual
- CEOM7098 – Underground: Design Manual
- CEOP8003 – Subtransmission and Distribution Network Planning Criteria and Guidelines
- CEOP8012 – Generation Connection: Protection Guidelines
- CEOP8026 – Supply Standards: Electricity Supply Standard
- CEOP8046 – Easement Requirements
- CEOP8079 – HV Connection Guidelines
- AER’s Connection Charge Guidelines for Electricity Retail Customer June 2012
- Community Land Development Act, 1989
- Electricity Association of NSW, Code of Practice – Contestable Works
- Electricity Supply Act 1995, Section 25(2)
- Electricity Supply (Customer Contract) Regulations
- Electricity Supply (Customer Contracts) Regulation 1996 – Dispute Resolution
- Electricity Supply (General) Regulation, 2001
- National Electricity Market Code
- NSW Service and Installation Rules
- Standards Australia – Wiring Rules (AS/NZS 3000:2000)
- The Electricity Supply (Customer Contracts) Regulation

**9. Revisions**

Issue Number	Section	Details of Changes in this Revision
1	All	New document
2	All	To incorporate Chapter 6 NER Connection policy requirements

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## Appendix A: Pioneer Scheme reimbursement

This Appendix A sets out the method for calculating reimbursements provided for under section 6 (Pioneer Scheme) of this Policy.

**Reimbursement calculations for Distribution Line**

- a. The unadjusted amount for each prospective new Customer is to be calculated using the following formula:

$$\frac{\text{Cost of original Customer's works x Depreciation factor}}{\text{Number of prospective new Customers + original Customer}}$$

- b. The percentage of the distribution line which will be utilised by each new Customer is to be calculated using the following formula:

$$\frac{\text{Length of distribution line the new Customer will be using}}{\text{Whole length of the distribution line original Customer paid for}} \times 100$$

- c. The final reimbursement payment that each new Customer is required to make is to be calculated using the following formula:

$$\frac{\text{Unadjusted amount worked out in (a) x Depreciation factor}}{100} \times \text{the percentage worked out in (b)} = \text{\$ total reimbursement payable for distribution line for that Customer} + \text{CPI (refer to section 5)}$$

**1. Reimbursement calculation for distribution substation**

The reimbursement amount for each prospective new Customer is to be calculated using the following formula:

$$\frac{\text{Cost of original Customer's works x Depreciation factor}}{\text{Number of prospective new Customers + original Customer}} + \text{CPI (refer to section 5)}$$

**2. The pro-Rata reimbursement (Applicable to Large Load in non-rural areas)**

The pro rata reimbursement for each prospective new Customer is to be calculated using the following formula:

$$\frac{\text{Cost of original Customer's works x Depreciation factor} \times \text{New customer's utilisation of original Customer's works}}{\text{Total utilisation of original Customer's works}} + \text{CPI (refer to section 5)}$$

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### 3. Minimum Reimbursement

Despite any other provision in section 1 of this appendix, a new customer is not liable to pay any cost share reimbursement if the amount calculated is less than \$1000.

$\frac{\$1000 + \text{CPI}}{\text{CPI(2)}} \text{ in this case the CPI} = \frac{\text{CPI(2)}}{\text{CPI(3)}} \text{ (refer to section 4)}$
---

### 4. CPI Adjustments

**CPI (1)** means the average of the consumer price indices (all groups, all capital cities) published by the Australian Bureau of Statistics for the previous 4 quarters immediately prior to the date that the original Customer's work is completed.

**CPI (2)** means the average of the consumer price indices (all groups, all capital cities) published by the Australian Bureau of Statistics for the previous 4 quarters immediately prior to 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 previous 4 quarters immediately prior to the date of commencement of this determination.

### 5. Depreciation Factor

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

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

For example:

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

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

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

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# Appendix B: Ancillary Network Services

- **Design Information**

The provision of information by Essential Energy 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:

1. 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
2. copying drawings that show existing low and HV circuitry (geographically and schematically) and adjacent project drawings
3. specifying the preferred sizes for overhead wires (conductors) or underground wires (cables)
4. specifying switchgear configuration type, number of pillars, streetlights etc
5. determining the special requirements of Essential Energy's planning departments necessary to make electrical supply available to a development and cater for future projects
6. any necessary liaison with designers associated with assistance in sourcing design information and developing designs, and
7. nominating Network Connection Points.

- **Design Certification**

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

This may include, without limitation:

1. certifying that the design information/project definition have been incorporated in the design
2. certifying that easement requirements and earthing details are shown
3. considering design issues, including checking for over-design and mechanisms to permit work on HV systems without disruption to supply to Customers' (adequate LV parallels)
4. certifying that funding details for components in the scope of works are correct
5. certifying that there are no obvious errors that depart from Essential Energy's design standards and specifications
6. 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
7. auditing design calculations such as voltage drop calculations, conductor clearance (stringing) calculations etc
8. certifying that a bill of materials has been submitted, and
9. certifying that an environmental assessment has been submitted by an accredited person and appropriately checked

- **Design Rechecking**

The rechecking of a design submitted under section 2, except where the modifications to a design are of a trivial or minor nature.

- **Inspection of Service Work (Level 1 Work)**

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 assets to be handed over to Essential Energy.

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- **Inspection of Service Work (Level 2 Work)**

The inspection by Essential Energy of work performed by an ASP accredited to perform level 2 work, complying with the condition below.

**Condition**

The number of inspections required must correspond to the grade in the table below:

**Table 1: Inspection Rate**

Grade	Number of Inspections
A	1 inspection per 20 jobs
B	1 inspection per 5 jobs
C	Each job to be inspected

- **Re-Inspection (Level 1 or Level 2 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.

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

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

- **Re-Inspection of Work of a Service Provider**

The re-inspection by Essential Energy of Customer installation work undertaken by a service provider for the reason that on first inspection the work was found not to be satisfactory.

- **Access Permit**

The provision of a permit by Essential Energy to a person authorised (or observed) by Essential Energy by law to work on, or near, Essential Energy's distribution network.

This service fee includes High Voltage access and may include without limitation:

1. researching and documenting the request for access including a site visit as required
2. documenting the actual switching process
3. programming the work
4. control room activities
5. fitting and removing of operational earths
6. the actual switching together with any operator's transport costs
7. identification of any Customers who will be interrupted for carding by the ASP,
8. LV switching and paralleling of substations that permits HV work without disrupting supply to other Customers
9. Cable ID, stab, cut and phase
10. Reinstate network and testing

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

- **Access**

The provision of access to switchrooms, substations and the like to an ASP who is accompanied by a member of staff of Essential Energy, but does not include the circumstance where an ASP is provided



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with keys for the purpose of securing access and is not accompanied by a member of staff of Essential Energy. Preparation of Clearance to Work (CTW) is included and charged in the hourly rate so additional CTW fee not applicable.

- **Contestable Substation Commissioning**

The commissioning by Essential Energy of a new substation, (whether it is a single pole, padmount/kiosk or indoor/chamber) and includes:

1. all necessary pre-commissioning checks and tests prior to energising the substation via the HV switchgear and closing the LV circuit breaker, links or fuses, and
2. the setting or resetting of protection equipment.

- **Administration Services for ASPs**

Work of an administrative nature (not including work of an administrative nature described in section 12), 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:

1. checking supply availability
2. processing applications
3. correspondence from application to completion
4. record-keeping
5. requesting and receiving fees (initially, then prior to design and after certification)
6. receiving design drawings (registering and copying)
7. raising an order for HV work
8. calculating value of any reimbursements under any applicable pioneer schemes
9. calculating the cost of a project and warranty/maintenance bond
10. organising refunds to developers for HV work
11. liaising with developers via phone and facsimile
12. updating geographic information systems (GIS) and mapping, and
13. supporting the process of design information, design certification and design rechecking.

- **Notice of Arrangement (NoA)**

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

This may include without limitation:

1. receiving and checking linen plans and 88B Instruments
2. copying linen plans
3. checking and recording easement details
4. preparing files for conveyancing officers
5. liaising with developers if errors or changes are required
6. checking and receiving duct declarations and any amended linen plans and 88B Instruments approved by a conveyancing officer
7. preparing notifications of arrangement

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- confirm the works are completed in accordance with Essential Energy's requirements including substation and duct, service mains to the customer's 'point of supply' and peg all easements and lot frontages and complete the works.

Essential Energy however, may issue a NoA prior to completion of the Contestable works provided:

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

- Authorisation ASPs**

The annual 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:

- familiarisation and training in Essential Energy's safety rules and access permit requirements
- induction in the unique aspects of the Network
- verification that the applicant has undertaken the necessary Regulatory safety training (resuscitation etc) within the last 12 months
- conducting interviews/examinations for access permit recipients and in-field safety audit
- issuing authorisation cards
- administration support directly related to Authorisation

- Site Establishment Fee**

Site establishment includes the issue of a meter (where applicable) by Essential Energy and its coordination with Australian Energy Market Operator (AEMO) for the purpose of establishing a NMI (National Metering Identifier) in MSATS (Market Settlement and Transfer System), operated by AEMO, for new Premises or for any existing Premises for which AEMO requires a new NMI and for checking and updating Network load data.

- Supply of Conveyancing Information Desk Inquiry**

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

- Supply of Conveyancing Information Field Visit**

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

- Disconnection Visit (Acceptable Payment Received)**

A site visit to a Customer's Premises on an occasion for the purpose of disconnecting the Customer's supply at the request of a Retailer based on the Customer's breach of a Customer supply contract or for breach of Essential Energy's Customer Connection Contract., where the disconnection does not occur on that occasion.

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

- Customer has paid retail bill;
- Breach of Customer Connection Contract has been rectified;
- Unable to access main switch board or metering;
- Safety of installation of Essential Energy's employees;
- Late cancellation by Retailer
- Change of Customer or Retailer for the NMI.

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**Disconnection at Meter Box (non technical)** At the request of the Retailer, a site visit to a Customer's Premises to disconnect the supply of electricity to a Customer for breach by the Customer of their Customer supply contract or for a breach of Essential Energy's Customer Connection Contract, or where a Retail supplier has requested that the supply to the Customer be disconnected.

The disconnection method will be at 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.

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

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

### **Disconnection at Meter Box ( technical )**

At the request of the Retailer, a site visit to a Customer's Premises to disconnect the supply of electricity to a Customer for breach by the Customer of their Customer supply contract or for a breach of Essential Energy's Customer Connection Contract, or where a Retail supplier has requested that the supply to the Customer be disconnected.

The disconnection method will be at Essential Energy's discretion and will involve a method not identified as a disconnection method for Disconnection at Meter Box (non technical) (e.g. pull load tail out of meter).

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

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

- **Disconnection at Pole Top/Pillar Box**

A site visit to a Customer's Premises to disconnect the supply of electricity to a Customer at the pole top or pillar box for breach by the Customer of their Customer supply contract or for a breach of Essential Energy's Customer Connection Contract, or where a Retailer 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.

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

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

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

A site visit to a Customer's Premises to disconnect the supply of electricity to a Customer at the pole top or pillar box for breach by the Customer of their Customer supply contract or for a breach of Essential Energy's Customer Connection Contract, or where a Retailer 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. Disconnection does not occur on that occasion, as Customer payment is made or a wasted visit.

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

- Customer has paid retail bill;
- Breach of Customer Connection Contract has been rectified;

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- Safety of Installation or Essential Energy's employee;
- Late cancellation by Retailer;
- Change of Customer or Retailer for the NMI.

- **Rectification of Illegal Connection**

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

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

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

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

- **Additional crew**

Provision of additional work crew at a Customer's request.

- **Fitting of tiger tail**

Installation of temporary covering (known as 'torapoli pipes' or 'tiger tail') on overhead mains and service lines.

Note: price will also include a rental charge for the use of equipment temporarily installed. NB This does not include the installation of temporary covers by certain ASPs in association with their contestable work, in accordance with the Service Provider Authorisation, which is contestable work.

- **High load escorts**

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

- **Reconnection Outside Normal Business Hours**

At the request of the Customer:

1. The provision of the reconnection component of either a disconnection at meter box or disconnection at pole top/pillar box' outside the hours of 7.30 am and 4.00 pm on a working day, or
2. The connection of electricity to a new Customer outside the hours of 7.30 am and 4.00 pm on a working day.

- **Clearance to Work**

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

May include (inter alia):

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

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

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- **Customer Interface Coordination**

This service is proposed where Customer developments may require a high level of Essential Energy involvement in order to coordinate a range of inputs from Essential Energy 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  $\leq 11$  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.

- **Preliminary Enquiry Service**

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

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

- **Connection Offer Service**

Services provided by Essential Energy in assessing Connection applications and making basic or standard connection offers under Chapter 5A of the NER.

Basic = involves no augmentation of the network (Basic - no embedded generation, Basic – with embedded generation)

Standard = model standing offer applies - (standard – no embedded generation, standard – with embedded generation)

- **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 ( $\leq 11$ 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  $>11$  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;

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- Consultation of connection particulars;
- Facilitation

- **Planning Studies and Analysis Service**

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

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

- **Deeds of Agreement Service**

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

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

- **Temporary Power**

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

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

- **Investigate and Review ASP Connection Works**

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

- **Debt Recovery**

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

- **Retailer of Last Resort (ROLR) Services**

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

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

ROLR Event Details.

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

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

- **Attendance at Customers Premises – Access Prevented**

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

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

- **Vacant Property Disconnection and Reconnection  
Non Technical**

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

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

At the request of the Customer a site visit to the Customers Premises to disconnect or reconnect the supply of electricity.

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

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

The disconnection/reconnection method will be at 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.

### **Site Visit Only**

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

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

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

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

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

- Unable to access main switch board or metering;
  - Safety of Installation or Essential Energy's employee;
  - Late cancellation by Retailer;
  - Change of Customer or Retailer for the NMI.
- **Move in move out meter reads**  
Service order requests from retailers to obtain a final read for customer move-outs or to obtain a start read where a Customer is moving in to a premises that has been vacant.  
  
These services are additional to the special meter reading, disconnection/reconnection and testing services currently included as miscellaneous services.

### Metering Services and Metering related Ancillary network services

#### Metering services

#### Metering Connection Charges

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

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

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

- **Franchise CT meter install**  
Essential Energy is responsible for Type 5 and 6 metering installations connected to Essential Energy's network and must provide and install rule compliant metering for any new current transformer or current and voltage transformer installations.
- **Special Meter Reading**  
This service has the same meaning as the meaning given to the expression 'special meter read' in the AER's Final Determination (but excludes any special meter reading of metering installation types 1 to 4, which is an unregulated distribution service); 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 at 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 the DNSP 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 the DNSP may attend the Customer's Premises to enable Essential Energy to discharge Essential Energy's legal obligation referred to in clause 3 above and when Essential Energy attended at the Customer's Premises at the appointed time Essential Energy (through no act or omission of the DNSP), was unable to gain access to the Customer's meter.

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

- where the Customer is or is about to move Premises; or



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- where the service reveals that a scheduled meter reading was inaccurate, (as outlined above).

- **Testing for type 5 and 6 meter.**

The testing of an Essential Energy meter in accordance with AEMO Metrology Procedure: Part A National Electricity Market. 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 only levy one charge for the provision of the service; and
- if the meter test reveals that one or more of the meters associated with the NMI are not operating satisfactorily, 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.

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

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

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

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

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

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

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

- **Emergency maintenance of failed metering equipment not owned by Essential Energy**

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

The Retailer and metering provider will be notified by Essential Energy within 2 business days to arrange a repair by the metering provider.

- **Controlled Load Conversion**

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

- **Network Tariff Change Request**

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

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