

Final Decision

Energex Electricity

Distribution Determination

2025 to 2030

(1 July 2025 to 30 June 2030)

Attachment 18
Connection policy

April 2025

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Email: aerinquiry@aer.gov.au
Tel: 1300 585 165

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1 INTRODUCTION

1.1 About Energex

Energex Limited (Energex) is part of Energy Queensland. Energex manages an electricity distribution system that delivers world-class energy products and services to one of Australia's fastest growing communities – the South-East Queensland region. Energex has been supplying electricity to Queenslanders for more than 100 years and today provides distribution services to almost 1.6 million domestic and business connections, delivering electricity to a population base of around 3.8 million people via 35,000 kilometres of overhead powerlines and 21,000 kilometres of underground network.

1.2 Purpose and scope of document

This document is Energex's connection policy commencing 1 July 2025 to 30 June 2030. It sets out the nature of the connection services offered by Energex during this period, and the method for determining if connection charges are payable and the basis for determining the amount for any connection charges.

This policy has been prepared in accordance with Part DA of Chapter 6 of the National Electricity Rules (the Rules) which requires distribution network service providers to prepare a connection policy setting out the circumstances in which a retail customer or real estate developer may be required to pay a connection charge for the provision of a connection service under Chapter 5A of the Rules, and is also consistent with:

- the connection charge principles described in Part E of Chapter 5A of the Rules,
- the Australian Energy Regulator's (AER's) Connection Charge Guidelines for Electricity Customers published under Chapter 5A of the Rules, and
- the AER's Framework and Approach decision for the classification of services for the 2025-2030 regulatory control period.

This policy applies to the following connection applicants:

- a retail customer, including a retail customer seeking to connect to a regulated stand-alone power system (SAPS), or a non-registered DER provider connecting a distribution connected unit,
- a retailer or person acting on behalf of a retail customer,
- a Registered Participant or Intending Participant who is:
 - acting as the agent of a retail customer, or
 - seeking to connect to a regulated SAPS, or
- a real estate developer.

In addition, non-registered DER providers may elect to make a connection application under Chapter 5 of the Rules.

This policy does not apply to:

- Registered Participants or Intending Participants seeking to connect to Energex's network under Chapter 5 of the Rules, or
- work undertaken behind the customer's connection point.

There are a number of terms appearing in this policy that have the meaning given to them in the Glossary.

1.3 Connecting to the Energex distribution network

A connection is the physical link between the distribution network and a customer's premises to allow the flow of electricity. All customers will require network connection services if they wish to connect their premises to the Energex distribution network, alter an existing connection or connect to a regulated SAPS. Energex is responsible for providing connection services to customers. These services include:

- connecting new premises to the distribution network (new connections),
- making alterations to existing connections where those existing connections are no longer able to meet the customer's requirements, e.g. increasing the number of phases that supply a premises, relocating the incoming supply to a premises or changing from an overhead to an underground service (connection alterations), and
- establishing distribution connected unit connections (which may be either new connections or connection alterations).

The provision of connection services may involve the establishment or modification of assets dedicated to the particular customer (premises connection assets), as well as extensions to, or augmentations of, the distribution network. An extension is an augmentation that requires the connection of a power line or facility outside the present boundaries of the distribution network. An augmentation of the distribution network is where work is required to enlarge the existing network or increase its capacity to distribute electricity, e.g. by installing a larger transformer, or reconductoring or replacing an existing feeder.

Charges for connection services will typically depend upon the customer connection type and the classification of the customer connection services required to make the connection.

1.4 Premises connection assets

Premises connection assets are the components of the distribution system used to provide connection services to a particular customer's electrical installation. Customers may be required to fund any components necessary to provide a connection service in accordance with applicable technical requirements and connection standards (available on our website).

The premises connection assets required to connect a customer to the network can include:

- high voltage overhead or underground mains,
- low voltage overhead or underground mains and services,
- distribution transformers, or
- protection systems.

1.5 Installation of meters

Apart from very limited cases where an unmetered connection is appropriate, customers connecting to Energex's distribution network will require a metering installation to measure the flow of electrical energy across the connection point, both for billing purposes and to access other services.

Energex is not responsible for installing or replacing meters at the customer's premises. Instead, it is the responsibility of the customer's nominated electricity retailer to appoint a metering coordinator to provide this service, except where a customer has appointed their own metering coordinator. Consequently, charges for new and replacement metering installations are the responsibility of the customer or their electricity retailer and are not discussed in this policy.

1.6 Supporting and technical documentation

This policy should be read in conjunction with Energex's connection manuals and technical standards. Current versions of these documents, as well as further information on the connection application process and applicable charges, are available on the Energex website: www.energex.com.au.

1.7 Contact details

You can contact our Customer Service Centre via our website: www.energex.com.au; or by calling: 13 12 53.

2 TYPES OF CUSTOMER CONNECTIONS

This policy refers to two types of customer connections to our network, namely:

- small customer connections, and
- large customer connections.

The relevant type is determined by Energex based on the levels of expected energy consumption and generation, using information provided by the connection applicant in accordance with Energex's processes and procedures.

2.1 Small customer connections

Small customer connections are for those customers that generally fall within the Standard Asset Customer (SAC) tariff class under Energex's Annual Pricing Proposal, which is available on our website.¹

Small customer connections typically include the connections of:

- residential dwellings and small commercial premises where the total requested capacity is up to and including 1,000 kVA (1 MVA),
- unmetered supply connections,² or
- distribution connected units with an installed capacity of less than or equal to 30 kVA and that comply with Energex's technical standards, which can be found on our website.

See **Appendix 1** for more information on small customer connections.

2.2 Large customer connections

Large customer connections are defined in Energex's Annual Pricing Proposal as those connections that generally fall within the tariff classes of Connection Asset Customer (CAC), Individually Calculated Customer (ICC),³ distribution connected unit operators and real estate developers. Large customer connections will typically include:

- large commercial premises where the total requested capacity is greater than 1,000 kVA (1 MVA),
- distribution connected units that do not fall within the definition of a small customer connection, or
- real estate developments.

Further information on the technical aspects of large customer connections is provided in the connection manuals and technical standards available on our website.

¹ Refer to Energex's Annual Pricing Proposal for full details of eligibility criteria for the SAC tariff class.

² Unmetered supply connections typically apply in circumstances when it is considered impractical to read or maintain a meter or where metering equipment would be susceptible to damage. Connections that are eligible for unmetered supply must have a steady and uniform load, i.e. where the energy consumption can be accurately assessed without the need for a meter.

³ Refer to Energex's Annual Pricing Proposal for full details of eligibility criteria for CAC and ICC tariff classes.

3 CONNECTION OFFERS

Distribution network service providers may provide three types of connection offers for new connections or connection alterations: basic, standard, and negotiated. The type of connection offer required will depend on criteria such as the connection type, the size and complexity of the connection and whether Energex will need to undertake work to extend or augment the distribution network.

Energex is required to provide model standing offers for the provision of basic connection services, which have been approved by the AER. These AER approved model standing offers are available on the Energex website. Once a customer accepts the terms of a model standing offer, a connection contract for basic connection services is formed.

All connection applicants have a right to negotiate the terms and conditions of their connection offer. Where the connection applicant elects to negotiate the terms and conditions of their connection, the model standing offer for basic connection services will not apply. In these circumstances, Energex will prepare a negotiated connection offer. The connection charges associated with negotiated connection offers will vary, depending on customer type and the specific requirements of the connection service (see section 4 for information on connection charges).

Energex offers two types of connection offers:

- **Basic connection offers** for connection services where supply is available and minimal or no augmentation is required, including:
 - small customer connections (including temporary connections for short-term supply) that do not exceed the maximum demand thresholds set out in section 4.3.3 of this policy,
 - micro DER connections that meet capacity and export specifications, and
 - certain unmetered supply connections.
- **Negotiated connection offers** for connection services that do not qualify for a basic connection offer, or for customers who elect to negotiate their connection offer.

At this stage Energex is not proposing to offer any standard connection services. However, Energex may seek the AER's approval to offer standard connection services in the future.

Current information on model standing offers approved by the AER for the provision of basic (or standard) connection services will be maintained on the Energex website.

4 CHARGES FOR CONNECTION SERVICES

4.1 Basis for determining charges for connection services

The AER regulates the charges that Energex may impose for specific services. The connection charges payable by a customer to Energex will (where applicable) be calculated as = AS + CC + PS, where:

- AS is the total charge payable for services classified as alternative control services
- CC is the total capital contribution payable for services classified as standard control services, and
- PS is the total charge payable to account for any pioneer scheme applying to assets to which the connection applicant connects.

These connection charges are explained below.

4.2 Connection charges for alternative control services

Table 1 below provides an overview of the types of connection services classified as alternative control services, which are generally customer-specific or customer-requested services. These services are commonly provided by Energex, but some services may be subject to Energex technical approval and third-party competition. Where an alternative control service is provided by Energex, the full cost of the service will be recovered from the customer requesting that service.

Table 1 Alternative control services

| Service | Description |
|---|---|
| Connection application and management services | <p>Works initiated by a customer or retailer which are specific to the connection point. Includes, but is not limited to:</p> <ul style="list-style-type: none"> • connection application related services, e.g. planning studies, system modelling, scoping, estimating and pre-application design • de-energisation • re-energisation • temporary connections, e.g. builder's supply, fetes, etc • remove or reposition connection • overhead service line replacement – customer requests the existing overhead service to be replaced (e.g. as a result of a point of attachment relocation). No material change to load • protection and power quality assessment • supply enhancement (e.g. upgrade from single phase to three phase) • customer requested change requiring secondary and primary plant studies for safe operation of the network (e.g. change protection settings) • upgrade from overhead to underground service • rectification of illegal connections or damage to overhead or underground service cables • calculation of a site-specific distribution loss factor on request in respect of a distribution connected unit up to 10 MW or a connection point for an end-user with actual or forecast load up to 40 GWh per annum capacity, as per clause 3.6.3(b1) of the Rules • power factor correction. |

| Service | Description |
|--|---|
| Negotiated connection services – network extension | Means an enhancement required to connect a power line or facility outside the present boundaries of the distribution network and the new or altered large customer connection will be dedicated to the exclusive use of the large customer at the time of installation and energisation and there is no reasonable likelihood that the network extension will be used to supply another customer or customers within the planning horizon outlined in this policy. |
| Premises connection services for large customer connections | Means a connection service for a large customer for which Energex provides an offer for a negotiated connection contract. Premises connections are new connection assets used to provide connection services. |
| Enhanced connection services | Other or enhanced connection services at the request of a customer or third party include those that are: <ul style="list-style-type: none"> provided with higher quality of reliability standards, or lower quality of reliability standards (where permissible) than required by the Rules or any other applicable regulatory instruments, in excess of levels of service or plant ratings required by Energex, establishment of a second connection point at a premises, removal of a network constraint for a distribution connected unit, including to remove a static zero export limit for a micro DER connection. |

Energex may also charge additional fees required to recover reasonable costs incurred to conduct a site inspection or for the negotiation and preparation of a negotiated connection offer.⁴ Such fees may be payable prior to any negotiations and Energex providing an offer to connect and will be based on the least cost technically acceptable construction method.

Information on specific charges is available in the Energex Alternative Control Services Price List, which is available on the Energex website.

4.3 Capital contributions for standard control services

Table 2 below outlines the connection services which are classified as a standard control service. Costs for these services are recovered through network charges from all relevant customers. However, Energex may seek a capital contribution from a connection applicant if the incremental cost of the standard control service exceeds the estimated incremental revenue expected to be derived from the connection.

Capital contributions are contributions by the connection applicant towards the cost of network extension, other network augmentation or connection assets required to enable the new connection or connection alteration to be made. Where a capital contribution is required, this will be specified in the connection offer.

⁴ As permitted under clause 5A.C.4 of the Rules.

Table 2 Standard control services

| Service | Description |
|--|---|
| Basic connection services - premises connections | Means a connection service related to a connection that falls within the definition of a basic connection and the connection is for new premises connection assets for a small customer connection. |
| Negotiated connection services - premises connections | Means a connection service related to a connection where Energex provides a negotiated connection offer and the connection is for new premises connection assets for a small customer connection. |
| Negotiated connection services - network extension | Means an extension required to connect a power line or facility outside the present boundaries of the Energex network to facilitate: <ul style="list-style-type: none"> a new or altered large customer connection where Energex considers there is a reasonable likelihood that the network extension will be used to supply another customer or customers within the planning horizon outlined in this policy, or a new or altered small customer connection. |
| Negotiated connection services - augmentation of the distribution network | Means an augmentation of the distribution network (which is not an extension) to facilitate a new or altered small or large customer connection for which Energex provides a connection offer for a negotiated connection contract. |

Most small customer connections will only require standard connection assets which Energex must provide.⁵ However, in some instances, there may need to be augmentation of premises connection assets, or an extension to, or augmentation of, the distribution network.

4.3.1 Determining when a capital contribution is required

Energex will assess whether a customer is required to make a capital contribution towards the costs associated with providing a connection service that is classified as a standard control service, taking into consideration whether:

- augmentation of premises connection assets at the connection point is necessary to provide a connection service, in which case connection charges for the service may include a reasonable capital contribution towards the cost of the augmentation of premises connection assets at the connection point necessary to provide the service,
- an extension to the distribution network is necessary to provide a connection service, in which case connection charges for the service may include a reasonable capital contribution towards the cost of the extension necessary to provide the service, and
- augmentation of the distribution network is necessary to provide a standard connection service, in which case connection charges for the service may include a reasonable capital contribution towards the cost of the augmentation necessary to provide the service.

⁵ Section 14(3) of the *Electricity Regulation 2006* (Qld) provides that the maximum length of a service line required to be provided and installed within a customer's premises by an electricity entity at the electricity entity's cost is: (a) 20 m for an overhead service; and (b) 7 m for an underground service line.

4.3.2 Planning Horizon and Distribution Network

Where Energex considers there is a reasonable likelihood that a network extension will be used to supply another customer or customers within the planning horizon of seven years from the time of installation, then the network extension assets will be considered to form part of the distribution network. Otherwise, the extension assets will be regarded as dedicated to the exclusive use of the connection applicant.

4.3.3 Shared network augmentation threshold

Capital contributions for network augmentation (other than a network extension beyond the standard service line) are not applicable for customers connected at low voltage where the maximum demand at the connection point:

- does not exceed 100 amps per phase for urban premises,
- does not exceed 80 amps per phase for rural premises, or
- does not exceed 10 kVA (approx. 40 amps) on SWER lines.

The network augmentation threshold does not apply to real estate developers and non-registered DER providers.

4.3.4 Method of calculating capital contributions (the cost-revenue-test)

Where applicable, the capital contribution amount will be calculated in the following manner:

Capital Contribution (CC) = ICCS + ICSN – IR(n=X)

Where:

ICCS = Incremental Cost Customer Specific

ICSN = Incremental Cost Shared Network

IR(n=X) = Incremental Revenue

A capital contribution is only payable where the incremental cost exceeds the incremental revenue, i.e. $CC > \$0$.

The incremental cost includes the customer specific connection costs (ICCS) (including costs of extensions and augmentation of premises connection assets at the connection point) and any shared network costs (ICSN) (including costs of augmentation, insofar as it involves more than an extension, attributable to the customer's connection).

The Incremental Cost Customer Specific (ICCS) is the incremental cost incurred by Energex that is specific to the connection, such as:

- costs of providing or augmenting any premises connection assets used to provide connection services,
- costs of any network extension,
- administration costs (including design and certification costs),
- costs of providing any other standard control services which are used solely by the customer, and
- tender costs (where applicable).

The Incremental Cost Shared Network (ICSN) is the network cost incurred by Energex as a result of the new or altered connection, but which is not specific to the connection, such as network augmentation (other than an extension beyond the standard service line). The ICSN is determined on the basis of unit rates, as follows:

$$\text{ICSN} = \text{Unit Rate} \times \text{Demand Estimate}^6$$

Where:

Unit Rate = Average cost of network augmentation (other than an extension beyond the standard service line) per unit of added capacity, expressed as \$/kVA.

Demand Estimate = Estimated maximum electrical energy flow that will be consumed by the connection applicant, measured in kVA.

The unit rates used to determine the ICSN for the 2025-2026 financial year are set out in Table 3 below.⁷ The process for determining the estimated maximum demand is set out in section 4.3.6 of this policy.

Table 3 ICSN unit rates for 2025-26

| Voltage level | Description | |
|-------------------------|-------------|-----------------|
| | Residential | Non-Residential |
| Sub-transmission | \$392 | \$249 |
| High Voltage | \$2,013 | \$1,277 |
| Low Voltage | \$3,018 | \$1,916 |

Note: Energex will set the proportion of shared network augmentation costs on a case-by-case basis based on the connection type, customer's expected demand and location of the connection on the distribution network.

The Incremental Revenue (IR(n=X)) will be the net present value of all of the expected Distribution Use of System (DUoS) charges recoverable from the customer.⁸ Energex will apply the following principles in estimating the IR:

- forecast DUoS revenue will be based on the price path set out in the AER's determination for 1 July 2025 to 30 June 2030 and the relevant network tariffs as set out in Energex's approved Annual Pricing Proposal and Tariff Structure Statement (both available on our website). For the period from 1 July 2025, Energex will assume a constant tariff in real terms,

⁶ Energex will use authorised demand to determine the ICSN.

⁷ For subsequent years of the 2025-2030 regulatory control period, the unit rates will be escalated using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities, December to December Quarter, (ABS Catalogue 6401.0).

⁸ DUoS charge components attributable to operational and maintenance costs and any connection services not included in the cost-revenue-test will be excluded.

- a discount rate based on Energex's approved regulatory weighted average cost of capital converted to pre-tax terms using the estimated average effective tax rate for the regulatory control period will be applied,
- a 30-year discount period will be applied for residential customers,
- if the customer is a business customer, then an assumed connection period of 15 years will be applied when calculating the expected DUoS charges recoverable from the customer. However, where a 15-year connection period does not reflect a reasonable estimate of the time that the connection service will be connected, Energex may apply an alternative assumed connection period for that connection service,
- for basic connection offers and where the connection falls below the shared network augmentation charge threshold, Energex will exclude from the IR the portion of DUoS charges attributable to augmentation of the shared network where it is estimated to be material, and
- Energex will ensure that operational and maintenance costs have no net impact on the capital contribution payable by the customer.

All capital contributions will be calculated specifically for the applicant. Energex does not apply pre-calculated capital contributions.

4.3.5 Accounting treatment of augmentation assets

Under the Rules, Energex may not recoup a return on, or of, the asset to the extent that the asset was funded through a capital contribution.⁹ Accordingly, to the extent that these assets have been so funded, they will not be considered in determining the revenue to be recovered from standard control services.

Where the capital contribution is provided as an "in-kind" contribution, as is commonly the case for electrical reticulation and connection assets within a real estate development, the fair and reasonable value of the contribution will be determined using the AER-approved formula for large customers.

4.3.6 Measuring demand and consumption

Where the connection applicant is required to make a capital contribution, the connection offer made by Energex will set out the demand and consumption estimates used to determine the amount of the capital contribution.

Energex will generally determine the consumption and demand based on the information supplied in the connection application. Where specific consumption and demand information is not provided in the connection application, Energex may base the estimates on load patterns of similar customers and apply the general principles used to determine a customer's tariff class, as set out in the annual AER-approved Pricing Proposal. Similarly, Energex may also take into account the impact of complementary technologies, such as solar PV and energy storage systems, on likely demand and consumption.

⁹ The return of the asset refers to depreciation.

Where Energex and the connection applicant (other than a real estate developer) cannot reach agreement on the estimated demand and consumption for use in determining the capital contribution payment for the connection point, Energex will apply a provisional estimate.

Where a provisional estimate has been used to determine a capital contribution, the connection applicant may be subject to an additional charge or refund for the difference between the actual consumption and demand and provisional estimates of consumption and demand. Energex will assess the additional charge or refund payable within three years of the connection being energised. The amount of the additional charge or refund will be the difference between the actual capital contribution paid and that calculated based on the actual demand and consumption. An additional charge or refund is only applicable where the connection applicant is still solvent and continuing to utilise the premises.

4.4 Pioneer scheme for customer funded network extension assets

If a network extension asset originally installed to connect the premises of a single customer is used, within seven years of its installation, to connect other premises and thus comes to be used for the benefit of two or more customers, the customer may be entitled to a partial refund of connection charges under an Energex pioneer scheme.

A pioneer scheme will apply to all extensions which have either been fully funded by a customer or towards which a customer has paid a capital contribution. Pioneer schemes will not be applied to network augmentations.

When a subsequent customer connects to a network extension which is subject to a pioneer scheme, Energex will provide each customer already connected to the extension with a partial refund and charge subsequent customers the amount determined by the pioneer scheme.

Energex will calculate the charge from a subsequent customer and refund to each customer already connected to an extension by:

- taking into account the physical attributes (i.e. length) a subsequent customer uses of an extension asset relative to other customers already connected to the extension, or
- taking into account the amount of electricity demand used by a subsequent customer relative to other customers already connected to the extension, and
- depreciating extension assets over 20 years using a straight-line depreciation method.

However, if Energex's pioneer scheme calculates a total refund to all customers already connected to the extension that is less than \$1,388 (\$, real 2025),¹⁰ Energex will not pay a refund to these customers and will not charge the customer connecting to the extension.

All customers who fund a dedicated network extension will be advised that they may be entitled to a partial refund under a pioneer scheme. Energex will also advise all new customers who apply for connection services that they may be required to contribute towards a pioneer scheme (where applicable). Where a new customer contributes an amount towards a pioneer scheme, Energex will forward the refund to the current owner of the premises as soon as practicable.

¹⁰ This threshold will be escalated annually using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities, December to December Quarter, (ABS Catalogue 6401.0).

4.4.1 Method for calculating a refund of connection charges

The contribution by a subsequent customer to network extension works previously funded by the original customer will either be based on the physical attributes of the extension assets or the demand of a subsequent customer.¹¹

- **Calculation based on length of extension**

Following is the method Energex will use when calculating refunds based on the length of the original customer's extension:

Cost of original customer's extension x depreciation factor

Number of new customers + original customer

x

Length of original customer's extension to be used by new customer

Total length of original extension

x

CPI(2)

CPI(1)

- **Calculation based on electricity demand¹²**

Energex may also take into account the amount of electricity demand to be used by a subsequent customer relative to other customers already connected to the extension. The method Energex will use when calculating refunds based on electricity demand will be as follows:

Cost of original customer's extension x depreciation factor

x

Demand required by new customer of original customer's extension

Sum of the demand required by all customers already connected to the original customer's extension

x

CPI(2)

CPI(1)

¹¹ The method used for calculating a refund will be determined based on whether the network extension assets funded by the original customer are distribution lines (i.e. a calculation based on length of extension) and / or assets other than distribution lines (i.e. a calculation based on electricity demand).

¹² Energex will use authorised demand to calculate refund.

Where:

| | | |
|---------------------------------------|---|--|
| Cost of original customer's extension | = | Where the original network extension was funded by a large customer as an alternative control service, actual cost; or Where the original network extension was partially funded by a capital contribution, the amount of capital contribution paid by the original customer. |
| Number of new customers | = | The number of new customers seeking an offer to connect to the network extension. |
| Depreciation factor | = | Apply straight line depreciation, over a 20-year asset life. |
| CPI(1) | = | The average of the consumer price indices (All Groups, All Capital Cities), published by the Australian Bureau of Statistics, for the previous four quarters immediately prior to the date that the original customer's extension works are completed. |
| CPI(2) | = | The average of the consumer price indices (All Groups, All Capital Cities), published by the Australian Bureau of Statistics, for the previous four quarters immediately prior to the date of the new customer's application for customer connection services. |

4.4.2 Subsequent refunds

For subsequent refunds, the extension assets subject to any pioneer scheme will be recorded according to the sharing arrangements prevailing at the time.

If a subsequent customer connects to the original customer's extension assets, the original customer will potentially hold:

- assets not already shared with any other customers, and / or
- assets already shared with one or more subsequent connecting customers.

When calculating any subsequent refunds, Energex will depreciate the value of assets to reflect their remaining life and appreciate the value in line with the CPI since the previous refund. The amount of the refunds in relation to each shared or non-shared component of the original customer's extension assets will then be calculated in accordance with section 4.4.1 above.

4.4.3 Application of pioneer schemes

Energex will take the following into consideration when establishing pioneer schemes and calculating a refund of connection charges:

- if an original customer requests a connection to be constructed to a higher standard or capacity than the least cost technically acceptable standard, then only the cost of constructing the connection to the least cost technically acceptable standard or capacity will be subject to the pioneer scheme,
- if Energex requires an extension to be built to a higher standard or capacity than required by an original customer, other than a real estate developer, the original customer will only pay for the extension to the standard required or capacity for its connection service and only the extension necessary for the original customer will be subject to a pioneer scheme,

- if Energex requires an extension to be built to a higher standard or capacity than required by a real estate developer and Energex charges a capital contribution for augmentation to the network to allow for forecast load growth, then the extension will be subject to a pioneer scheme, unless the real estate developer and Energex agree that Energex should only charge the real estate developer for the portion of the total cost attributable to the real estate developer, and
- any pioneer scheme applied to real estate developments would only apply to customers connecting to the extension assets outside the pioneer developer's site boundary and not to premises connecting within the development.

4.5 Security fee

Energex may require the payment of a security fee where we consider that there is a high risk that we may not earn the estimated incremental revenue from the connection services Energex is to provide.

Should Energex require a security fee, it may require an amount to be paid either upfront, or by way of a financial security (e.g. a bank guarantee) to be provided (in Energex's discretion) in the amount which is the lesser of the incremental revenue at risk of non-recovery or the incremental cost incurred by Energex.

Where the security fee is provided as an upfront payment, Energex will rebate the security fee via annual instalments, with the annual rebate being the:

- interest earned on the security,¹³ calculated at the interest rate (cost of debt) approved by the AER for the revenue determination, plus
- the lower of:
 - the actual incremental revenue received from the customer for the year, and
 - the security fee that was paid for that year.

Energex will not:

- require a security fee for an amount that exceeds the value of the incremental revenue which is at risk of not being recovered,
- require a security fee for an amount that exceeds the present value of the incremental costs incurred by Energex, or
- require a security fee where the total value of the network augmentation or connection asset augmentation is valued at less than \$10,000.

Security fees are not intended to cover defects in workmanship where the connection assets are constructed by a third party. Separate warranties will be sought to cover these risks.

¹³ Generally, Energex does not earn interest on the security fees it holds.

4.6 Payment of connection charges

Charges for connection services may be payable either through the customer's electricity retail account or directly to Energex, depending on the type of connection. Customers will be advised of connection charges and payment requirements in their connection offer.

4.6.1 Payment of small customer connection charges

Energex will generally not invoice customers directly for most connection charges for small customer connections but will pass these charges on to the customer's electricity retailer for inclusion in the customer's next electricity account.

However, under certain circumstances, Energex may seek advance payment of connection charges for connection application and management services before the commencement of construction work. When a customer is required to pay a capital contribution for a standard control service, payment will be required prior to commencement of construction.

4.6.2 Payment of large customer connection charges

Energex will generally require the connection applicant to pay the charges for connection application and management services at the time the services are provided.

Energex will also typically require advance payment of connection charges, including capital contributions, for large customer connections prior to commencement of construction work.

Where these connection charges are more than the prepayment threshold of \$6,942 (\$, real 2025),¹⁴ the payments may be staged if the construction:

- is not expected to commence for three months or more, or
- can be logically segmented into distinct stages of construction.

Where the connection charges are greater than the prepayment threshold and construction is not expected to commence for three months or more, the following staged payments may apply:

- at connection offer acceptance:
 - sunk costs for design and administration already incurred by Energex,
 - costs for design and administration that Energex will incur immediately after offer acceptance, and
 - costs for specialised or non-standard assets that Energex will need to procure prior to construction commencing, and
- the balance of all connection charges three weeks prior to construction commencement.

¹⁴ This threshold will be escalated annually using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities, December to December Quarter, (ABS Catalogue 6401.0).

Where the connection charges are greater than the prepayment threshold and construction can be logically segmented into distinct construction stages, the following staged payments will apply:

- at connection offer acceptance:
 - sunk costs for design and administration already incurred by Energex,
 - costs for detailed design and administration that Energex will incur immediately after offer acceptance, and
 - costs for specialised or non-standard assets that Energex will need to procure prior to construction commencing, and
- three weeks prior to commencement of each construction stage, a staged payment of the connection charge that reasonably reflects the costs that Energex will incur in the construction stage.

5 REAL ESTATE DEVELOPERS

For the purposes of this policy a real estate developer is a connection applicant that is seeking to develop a site for future use by retail customers. The real estate developer who is the connection applicant may not necessarily be the end use retail customer.

Real estate developers are generally responsible for the design and construction of electrical reticulation and connection assets and must fully fund the electrical works to the site in accordance with the relevant council development application and Energex standards.

The connection of real estate developments to the Energex distribution network will typically involve an extension and/or augmentation to the distribution network to cater for the expected future intended usage. Real estate developers are not eligible for the exemption from being charged for network augmentation and may be required to fund any extension and/or augmentation necessary to facilitate their development as determined by Energex.

6 DISTRIBUTION CONNECTED UNITS

Non-registered DER providers are not eligible for the exemption from being charged for augmentation of the distribution network (insofar as it involves more than an extension) and must pay the full costs of removing network constraints that are specific to the connection of the distribution connected unit. This also applies to the connection of a new distribution connected unit with an existing load.

However, Energex may fund network augmentation if there is a demonstrable net benefit to other network users. Non-registered DER providers will not be charged a unit rate for network augmentation (based on the generation output).

Any standard control service charges for a new load connection, that also includes a generation component, will be calculated in accordance with chapter 4 of this policy, with the following exceptions:

- the capital contribution for non-registered DER providers that are also load customers will be calculated based on the total cost of the works required to support both the generation (expected electricity output) and load components of the connection service,
- no incremental revenue will be received by Energex from the generation component, and
- the relevant load for the purposes of calculating ICSN will be the gross peak demand of the load, regardless of the non-registered DER provider's expected electricity output.

7 STATIC ZERO EXPORT LIMITS

7.1 Overview

Energex is required to outline the circumstances under which we may offer a new or altered micro DER connection with a static zero export limit.

Energex will only impose a static zero export limit to a micro DER connection in circumstances permitted under the AER's Connection Charge Guideline for Electricity Customers. Our policy on when Energex will impose a static zero export limit is available on our website.

Energex will not impose a static zero export limit (unless explicitly requested by the customer) if the micro resource operator has a suitable dynamic response system. Energex will use its best endeavours to identify and specify suitable dynamic response systems for all locations in its distribution area.

7.2 Review of limits

Where a static zero export limit condition is offered, the connection applicant may seek a review of the static zero export limit conditions five years after the initial connection is completed. Energex will also review the static zero export limit imposed on existing micro resource operators following any network augmentation works that will lead to the removal of the original imposed static zero export limit arising from the augmentation, designed to expand the micro DER export capacity.

If following the review, Energex determines that an existing static zero export limit should no longer be applicable, then Energex will inform the relevant micro resource operator that they could have their export limits lifted. The micro resource operator will need to reapply for a new connection agreement with the static zero export limit lifted.

7.3 Customer funded network augmentation

There may be locations in Energex's distribution network where the existing level of rooftop solar has reached a saturation level and to avoid imposing a static zero limit, augmentation of the network may be necessary. However, augmentation may not be a prudent and efficient investment for Energex to increase hosting capacity when the cost outweighs the benefits. In such cases, the specific customer will need to bear the cost for network augmentation to avoid export limitation. Where a customer funds the network augmentation to remove a static zero export limit, the charge payable will be treated as an alternative control service as an enhanced connection service (refer to Table 1 above).

7.4 Communicating reasons for static zero export limits

Prior to imposing a static zero export limit on a connection applicant for a new or altered micro DER connection, Energex will:

- explain, to the connection applicant, the technical and economic considerations that led to the static zero export limit being imposed, and
- inform the connection applicant of the option of installing a suitable dynamic response system in order to avoid a static zero export limit being imposed, and
- inform the connection applicant about how to access an independent technical review of Energex's reasons for imposing the static zero limit, and

- inform the connection applicant about whether there are alternative dispute resolution channels available to help negotiate a suitable export limit other than a static zero limit.

8 CONTESTABILITY OF SERVICES

There is currently limited contestability for the provision of network connection services in Queensland. The design and construction of connection assets for some large customer connections and real estate development connections may be a contestable service, subject to a risk assessment. If it is a contestable service this means that the connection applicant may either engage Energex or a suitably qualified and experienced external service provider to provide these services and the connection applicant will have three options for the design and construction of those assets, being:

- Energex designs, builds, owns and maintains the assets, or
- connection applicant designs and builds the assets and then transfers them to Energex.

Further information about contestability of services and connection asset ownership is available in the connection and technical documentation available on our website.

9 DISPUTE RESOLUTION

Disputes between Energex and customers will be managed in accordance with Energex's standard complaints and dispute resolution procedure, details of which are available on Energex's website. Energex will make every endeavour to resolve connection disputes in a timely manner.

Where agreement on the terms and conditions of the connection offer cannot be reached, the AER may consider and make determinations regarding customer connection disputes between a customer and Energex. The AER is responsible for making determinations on customer connection disputes with electricity distribution businesses under Part 10 of the National Electricity Law. Information on the AER's customer connection dispute resolution process is available on the AER's website: www.aer.gov.au.

10 GLOSSARY

10.1 Abbreviations

| | |
|---------|------------------------------------|
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| CC | Capital Contribution |
| CPI | Consumer Price Index |
| DER | Distributed energy resources |
| Energex | Energex Limited |
| ICCS | Incremental Cost Customer Specific |
| ICSN | Incremental Cost Shared Network |
| IR | Incremental Revenue |
| kVA | Kilovolt amperes |
| kW | Kilowatt |
| MVA | Megavolt amperes |
| PV | Photovoltaic |
| Rules | National Electricity Rules. |
| SAPS | Stand alone power system |
| SWER | Single wire earth return |

10.2 Definitions

| Term | Definition |
|------------------------------------|---|
| AER Connection Charge Guidelines | The Australian Energy Regulator's Connection Charge Guidelines for electricity retail customers, published under Chapter 5A of the Rules |
| Alternative Control Services (ACS) | A distribution service provided by Energex that the AER has classified as an alternative control service under the Rules. |
| Approved Service Provider | A person or organisation authorised by Energex to carry out the design and / or construction of certain electrical works. |
| Augmentation | Work to enlarge the distribution system or to increase its capacity to transmit or distribute electricity. |
| Basic connection services | A connection service that meets the requirements for a basic connection service, as set out in this connection policy. |
| Capital contribution | A contribution by a connection applicant towards costs associated with a standard control connection service. |
| CBD feeder | A feeder supplying predominantly commercial high-rise buildings, supplied by a predominantly underground supply network containing significant interconnection and redundancy when compared to urban areas. |

| Term | Definition |
|---|---|
| Connection | A physical link between a distribution system and a retail customer's premises to allow the flow of electricity. |
| Connection alteration | An alteration to an existing connection including an addition, upgrade, extension, expansion, augmentation or any other kind of alteration. |
| Connection applicant | An applicant for a connection service who is a retail customer, a retailer or other person acting on behalf of a retail customer or a real estate developer. |
| Connection application | An application made under clause 5A.D.3 of the Rules. |
| Connection charge | A charge imposed by a Distribution Network Service Provider for a connection service. |
| Connection contract | A contract formed by the making and acceptance of a connection offer. |
| Connection offer | An offer by a Distribution Network Service Provider to enter into a connection contract with a retail customer or a real estate developer. |
| Connection point | The agreed point of supply established between Network Service Provider(s) and another Registered Participant, Non-Registered Customer or franchise customer. |
| Connection policy | A document, approved as a connection policy by the AER under Chapter 6 of the Rules, setting out the circumstances in which connection charges are payable and the basis for determining the amount of such charges. |
| Connection service | Means either or both of the following: <ul style="list-style-type: none"> • A service relating to a new connection for premises • A service relating to a connection alteration for premises. but, to avoid doubt, does not include a service of providing, installing or maintaining a metering installation for premises. |
| Constraint | A limitation on the capability of a network, load, a generating unit, a bidirectional unit or a wholesale demand response unit such that it is unacceptable to either transfer, consume or generate the level of electrical power, or provide the level of wholesale demand response, that would occur if the limitation was removed. |
| Contestable | 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. |
| Distribution connected bidirectional unit | A bidirectional unit connected within a distribution system and not having direct access to the transmission network. |
| Distribution connected generating unit | A generating unit connected within a distribution system and not having direct access to the transmission network. |
| Distribution connected unit | A distribution connected generating unit or a distribution connected bidirectional unit. |
| Distribution connected unit operator | A person who owns, controls or operates a distribution connected unit. |
| Distribution network | A network which is not a transmission network |

| Term | Definition |
|---------------------------------------|---|
| Distribution Network Service Provider | A person who engages in the activity of owning, controlling, or operating a distribution system. Energex is a Distribution Network Service Provider. |
| Distribution system | A distribution network, together with the connection assets associated with the distribution network, which is connected to another transmission or distribution system. Connection assets on their own do not constitute a distribution system. |
| Extension | An augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider. |
| Final Distribution Determination | The AER's Final Distribution Determination sets the revenue and pricing control regime that Energex must comply with for the regulatory control period. |
| HV customer connection | A High Voltage (HV) Customer owned connection point is where the nominal voltage is above 1 kV. |
| Long rural feeder | A feeder which is not an urban feeder and has a total feeder route length of greater than 200 km. |
| Large customer connection | Connections for those customers who fall within the tariff classes of Individually Calculated Customer (ICC) and Connection Asset Customer (CAC), non-registered DER providers and real estate developers, as defined in Energex's Annual Pricing Proposal. |
| Micro DER connection | A connection between a distribution connected unit and a distribution network of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters). |
| Micro resource operator | A small customer, large customer or SRA customer who operates, or proposes to operate, a distribution connected unit for which a micro DER connection is appropriate. |
| Model standing offer | A document approved by the AER as a model standing offer to provide basic connection services or as a model standing offer to provide standard connection services. |
| National Electricity Market | The wholesale exchange operated and administered by AEMO. |
| National Electricity Rules | Rules made under the National Electricity Law which govern the operation of the National Electricity Market. |
| National Grid | The interconnected transmission and distribution systems within Queensland, New South Wales, Victoria, Tasmania, South Australia and the Australian Capital Territory. |
| Negotiated connection | A connection that is not a basic or standard connection. |
| Network | The apparatus, equipment, plant and buildings used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail) excluding any connection assets. In relation to a Network Service Provider, a network owned, operated or controlled by that Network Service Provider. |
| Network service provider | A person who engages in the activity of owning, controlling or operating a transmission or distribution system and who is registered by AEMO as a Network Service Provider under Chapter 2 of the Rules. Energex is a network service provider. |

| Term | Definition |
|-----------------------------|--|
| New connection | A connection established or to be established in accordance with Chapter 5A of the Rules and applicable energy laws, where there is no existing connection. |
| Non-registered DER provider | A distribution connected unit operator that is neither a micro resource operator nor a Registered Participant. |
| Original customer | The connection applicant who triggered the requirement and paid for the construction of an extension asset. |
| Peak coincident demand | A connection service's electricity demand at times when the network or relevant segment is experiencing its maximum demand |
| Pioneer scheme | A scheme to enable a customer who has either fully funded or paid a capital contribution towards a dedicated network extension to receive a refund if the network extension is subsequently used by other customers within seven years after its installation and energisation. |
| Premises connection assets | The components of a distribution system used to provide connection services. |
| Real estate developer | A person who carries out a real estate development. |
| Real estate development | The commercial development of land including its development in one or more of the following ways: <ul style="list-style-type: none"> – residential housing and commercial and / or industrial subdivisions; – commercial and / or industrial multi-tenanted premises; and – multi-residential premises. |
| Registered Participant | A person who is registered by AEMO in any one or more of the categories listed in rules 2.2 to 2.7 of the Rules (in the case of a person who is registered by AEMO as a Trader, such a person is only a Registered Participant for the purposes referred to in rule 2.5A). However, as set out in clause 8.2.1(a1), for the purposes of some provisions of rule 8.2 only, AEMO, Connection Applicants, Metering Providers and Metering Data Providers who are not otherwise Registered Participants are also deemed to be Registered Participants. |
| Regulatory control period | A period of no less than five regulatory years for which the Distribution Network Service Provider is subject to a control mechanism imposed by a distribution determination. |
| Regulated SAPS | A stand-alone power system: <ul style="list-style-type: none"> a. implemented as a project undertaken by a Distribution Network Service Provider to address system limitations and that involves the planning, development, construction and commissioning of a stand-alone power system; or b. of a Distribution Network Service Provider, designated by a law of a participating jurisdiction, as a part of the national electricity system. |
| Short rural feeder | A feeder which has a total feeder route length less than 200 km, and is not an urban feeder. |
| Small customer connection | Connections for those customers that fall within the Standard Asset Customer (SAC) tariff class in accordance with Energex's Annual Pricing Proposal. |

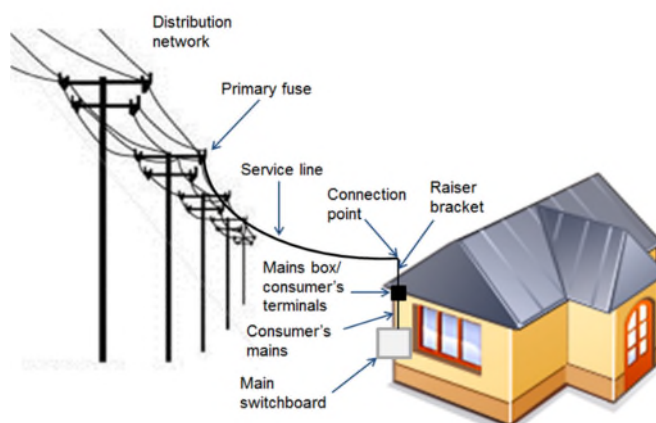
| Term | Definition |
|-------------------------------|--|
| SRA customer | A person who owns, operates or controls, or proposes to own, operate or control, a small generating unit or small bidirectional unit and who has an agreement with a Small Resource Aggregator relating to the small generating unit or small bidirectional unit (as the case may be) under which the Small Resource Aggregator is financially responsible for the small resource connection point for the relevant unit |
| Static zero export limit | A maximum specified capacity to supply into the distribution network of zero at all times of day and in all network operating conditions. |
| Standard connection service | A connection service (other than a basic connection service) for a particular class (or sub-class) of connection applicant and for which a model standing offer has been approved by the AER. |
| Standard service line lengths | Section 14(3) of the Electricity Regulation 2006 (Qld) provides that the maximum length of a service line required to be provided and installed within a customer's premises by an electricity entity at the electricity entity's cost is: <ul style="list-style-type: none"> - 20m for an overhead service line; or - 7m for an underground service line. |
| Subsequent customer | A connection applicant, other than the original customer, who connects to an extension subject to a pioneer scheme. |
| Total requested capacity | Means the connection applicant's total requested capacity at the connection point, including existing capacity. |
| Urban feeder | A feeder that has an annual actual maximum demand per total feeder route length of greater than 0.3 MVA/km. |

11 APPENDIX 1 - RESIDENTIAL AND SMALL COMMERCIAL PREMISES

Small customer connections are typically for residential customers and small commercial premises. The connection will involve either a low voltage overhead service connection or a low voltage underground service connection, depending on a number of factors including whether the distribution network in the customer's area is overhead or underground.

For premises located in an area with overhead power lines, the connection generally involves an overhead service wire and service fuses from an Energex-owned pole to a connection point on the customer's property. Overhead service lines and associated equipment are typically premises connection assets used to connect a particular customer's electrical installation to the shared distribution network. This is illustrated in the following diagram.

Figure 1 Typical overhead connection for residential customer



For premises located in an area with underground electricity supply, the connection typically involves the customer's consumer mains connecting into a connection point in an Energex-owned distribution service pillar. The customer is then responsible for the consumer's mains. This is illustrated in the following diagram.

Figure 2 Typical underground connection for residential customer

