



PRELIMINARY DECISION

Ergon Energy determination 2015–16 to 2019–20

Attachment 18 – Connection policy

April 2015

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Note

This attachment forms part of the AER's preliminary decision on Ergon Energy's 2015–20 distribution determination. It should be read with other parts of the preliminary decision.

The preliminary decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Value of imputation credits

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 7 – Operating expenditure

Attachment 8 – Corporate income tax

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Attachment 18 – Connection policy

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Shortened forms

| Shortened form | Extended form |
|----------------------------------|--|
| AARR | aggregate annual revenue requirement |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| ASRR | aggregate service revenue requirement |
| augex | augmentation expenditure |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| CESS | capital expenditure sharing scheme |
| CPI | consumer price index |
| CPI-X | consumer price index minus X |
| DRP | debt risk premium |
| DMIA | demand management innovation allowance |
| DMIS | demand management incentive scheme |
| distributor | distribution network service provider |
| DUoS | distribution use of system |
| EBSS | efficiency benefit sharing scheme |
| ERP | equity risk premium |
| expenditure assessment guideline | expenditure forecast assessment guideline for electricity distribution |
| F&A | framework and approach |
| MRP | market risk premium |
| NEL | national electricity law |
| NEM | national electricity market |
| NEO | national electricity objective |
| NER | national electricity rules |

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

18 Connection policy

We are required to approve a connection policy prepared by a distributor under the National Electricity Rules (NER).¹

A connection policy sets out the nature of connection services offered by a distributor, when connection charges may be payable by retail customers and how those charges are calculated. A connection policy:²

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

The AER's connection charge guidelines for electricity retail customers

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

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

¹ NER, Part DA of chapter 6.

² NER, cl. 6.7A.1(b).

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

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

18.1 Preliminary decision

We do not approve Ergon Energy's connection policy because:

1. the upstream shared network asset augmentation charge rate⁴ is not consistent with our connection charge guideline; and
2. certain terms and conditions need refinement to improve clarity to new customers.

18.2 Ergon Energy's proposal

Ergon's Energy's connection policy provides an outline of its connection services, when connection charges may be payable by its retail customers and how those charges are calculated.⁵

18.3 AER's assessment approach

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

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

In addition, we also examined whether:

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

18.4 Reasons for preliminary decision

We have not approved the proposed connection policy because:

- While its proposed marginal cost per unit of network assets is reasonable, Ergon Energy's proposed shared network augmentation charge rate for customers above the threshold for paying upstream costs is based on the full marginal cost without taking into account the connection lives of new connections as required by our connection charge guideline.

⁴ This charge only applies to new customers above certain threshold levels specified in the connection policy, for such larger customers' share of use of the upstream network.

⁵ Ergon Energy, *Appendix D: Ergon Energy connection policy*, October 2014.

- While the proposed terms and conditions of the connection policy largely met the minimum requirements of the rules, we consider that the policy should be more effective in explaining how the charge framework works, and by providing more relevant context on the charging framework so as to reduce unnecessary customer confusion.

These issues are explained below.

18.4.1 Marginal cost for shared network augmentation

Ergon Energy proposed a marginal cost of \$1,486.49 per kVA for 2015-16. This rate is indexed to CPI for each subsequent regulatory year. This rate was calculated based on its average capital cost of capacity, which is considered by Ergon Energy to be representative of the long run marginal cost of network augmentation.⁶

In order to verify whether this charge rate is reasonable, we benchmarked the proposed marginal cost for shared network augmentation against a previous study by the Productivity Commission and Ergon Energy's historical cost.

18.4.1.1 Compared with Productivity Commission's findings on long run marginal cost of network augmentation

In its report published in 2013, the Productivity Commission found that the long run marginal cost (LRMC) of distribution infrastructure costs for an additional kW per year to be between \$150 and \$220.⁷

The above rate is equivalent to about \$1910-\$2800 per kVA based on 5.85% WACC and 50 years asset life and at unity (1.0) power factor.^{8,9}

Ergon Energy's proposed rate—at \$1,486.49 per kVA—is less than what is predicted by the Productivity Commission's findings.

18.4.1.2 Comparison with historical cost

We calculated that Ergon Energy's historical average shared network cost to be about \$2450 per kVA based on its Benchmarking RIN report for 2013–14.¹⁰ This historical cost is also higher than Ergon Energy's proposed marginal cost for shared network augmentation. Table 18.1 provides the details of our calculation.

⁶ Ergon Energy, attachment 09.02.01

⁷ Productivity Commission, *The costs and benefits of demand management for households, Supplement to inquiry report on Electricity Network Regulatory Frameworks*, 9 April 2013, p.22.

⁸ The Productivity Commission expressed the LRMC is \$/KW. The relationship between kW and kVA is expressed as "power factor". 1 kVA at 0.9 power factor equals 0.9 kW of real power.

⁹ Ergon Energy advised that (AER Ergon 064) its network overall power factor is 0.971, very close to unity.

¹⁰ <http://www.aer.gov.au/node/483?date%5Bvalue%5D%5Byear%5D=§or=All&category=1495>

Table 18.1 assessment of Ergon Energy's historical cost

| Information from Benchmark RIN | |
|---|--------------|
| Depreciated RAB of relevant portion of network asset (\$000) (note a) | A= 8,499,647 |
| Non-coincident Summated Raw System Annual Maximum Demand (MW) | 3,083 |
| AER assumed utilisation factor (note b) | 60% |
| Optimal system capacity based on assumed utilisation factor based on the above utilisation factor (MW) | B= 5,139 |
| Average depreciated system capacity cost, \$/kW (A/B) | 1,654 |
| Remaining asset life (note c) | 67% |
| Average undepreciated network capacity cost (\$/kVA), adjusted for straight line depreciation of asset age, based on unity power factor | \$2,461 |

Notes to table

(a) The reset RIN does not have all the info that we need (in particular, the average asset life). So, we used the benchmarking RINs for 2013–14 instead. Only the following network asset values are included in the calculation, all non-network asset values are not counted:

- overhead network assets less than 33kV
- underground network assets less than 33kV
- distribution substations and transformers
- overhead network assets 33kV and above
- underground network assets 33kV and above
- zone substations and transformers.

(b) Assumption on utilisation factor based on:

Darryl Somerville, Detailed Report of the Independent Panel for Electricity Distribution and Service Delivery for the 21st Century, [Queensland] – July 2004, p12 statement that: The Australian average [utilisation factor] is around 56% and the professional advice that the Panel obtained was that prudent practice dictates that utilisation should be around 60% to 65%.

(c) Based on the benchmarking RINs for 2013–14.

18.4.1.3 Conclusion

We conclude that Ergon Energy's proposed marginal cost for shared network augmentation is reasonable because the rate is less than the actual historical cost and consistent with Productivity Commission's findings on the LRMC for providing additional network capacity.

18.4.2 Shared network augmentation charge rate

Ergon Energy proposed to apply the full marginal cost of \$1,486.49 per kVA for 2015-16 as the share network augmentation charge rate.

We consider that such proposal to charge new customers the full marginal cost is not consistent with our Connection Charge Guideline, because the rate has not taken new

customers' connection life into consideration.¹¹ The need to take the connection life into consideration was explained in our *Explanatory Statement for the Proposed Connection Charge Guidelines: under chapter 5A of National Electricity Rules for retail customers accessing the electricity distribution network*. On pages 34-34 we explain as follows:

Where a customer will use an asset for less than its expected useful life, and where a DNSP would reasonably be expected to reuse some of this capacity once that customer leaves the network, each customer should only be charged for the period for which it is using the asset....To address this issue, the AER developed a calculation method under which, in total, the connection charges received by a DNSP would equal the marginal cost of reinforcement (MCR)-or the per unit rate charge. The AER considers DNSPs will need to either adopt a method similar to this, or an alternative method that achieves a similar outcome.

The rationale of our previously proposed MCR calculation method for CitiPower is that:

As upstream assets can be used by multiple customers and the same asset could be used by future new customers once the earlier customers stop using such assets at the end of their connection life, it is not equitable for the first new customer to fund the full cost of upstream augmentation...

The net present value of all connection charges received by CitiPower in respect to the augmentation of a particular asset should equal the MCR of that asset. A methodology that does not take this into account would result in CitiPower either over or under recovering its costs.

The charges paid (in respect of the augmentation of a given asset) by previous, current and future new customers should be equal in real terms. A methodology that does not take this into account would result in an intertemporal transfer of wealth and would be inequitable for some customers.

As Ergon Energy has not developed an alternative method to calculate the upstream charge rates based on the expected connection life, we consider that we should adopt the method previously published by us, as indicated in the Explanatory Note.

We calculated that an adjustment factor of 0.574 and 0.818 should be applied to the proposed full charge rates for business and residential customers respectively (representing a 43 and 18 per cent reduction respectively). These factors are based on the WACC of 5.85 per cent for Ergon Energy, and a connection life of 15 and 30 years for business and residential customers respectively.

¹¹ Clause 5.2.11 of the Connection Charge Guideline requires that: In calculating the applicable unit rate(s), a distribution network service provider must take account of the cost of augmenting each network component with reference to: (a) The proportion of each network component used by the connection applicant; and (b) The useful life of the network component and the assumed period for which the connection applicant will be using the network.

18.4.3 Ergon Energy's proposed terms and conditions of the connection policy

While the proposed terms and conditions of the connection policy largely met the minimum requirements of the rules, we consider that the policy should be improved to be more effective in explaining how the charge framework works and to provide more relevant context on the charging framework. Examples of these minor improvements include:

- The connection policy notes that, under standard control, network extension costs are recovered under DUoS. This is only fully clarified further down the document, under the how to calculate connection charge section, that the charge is the difference between the incremental cost and the net present value (NPV) of incremental DUoS revenue over the life of the connection. We consider that the connection policy should clarify that connection charges are subject to an efficiency test even under standard control, and new customers need to pay the difference between incremental cost and incremental revenue as per our guideline.
- Some of the references to the threshold levels where a shared network augmentation charge applies are not clear on whether the threshold demand level is the per phase current limit of up to 3-phased supply.

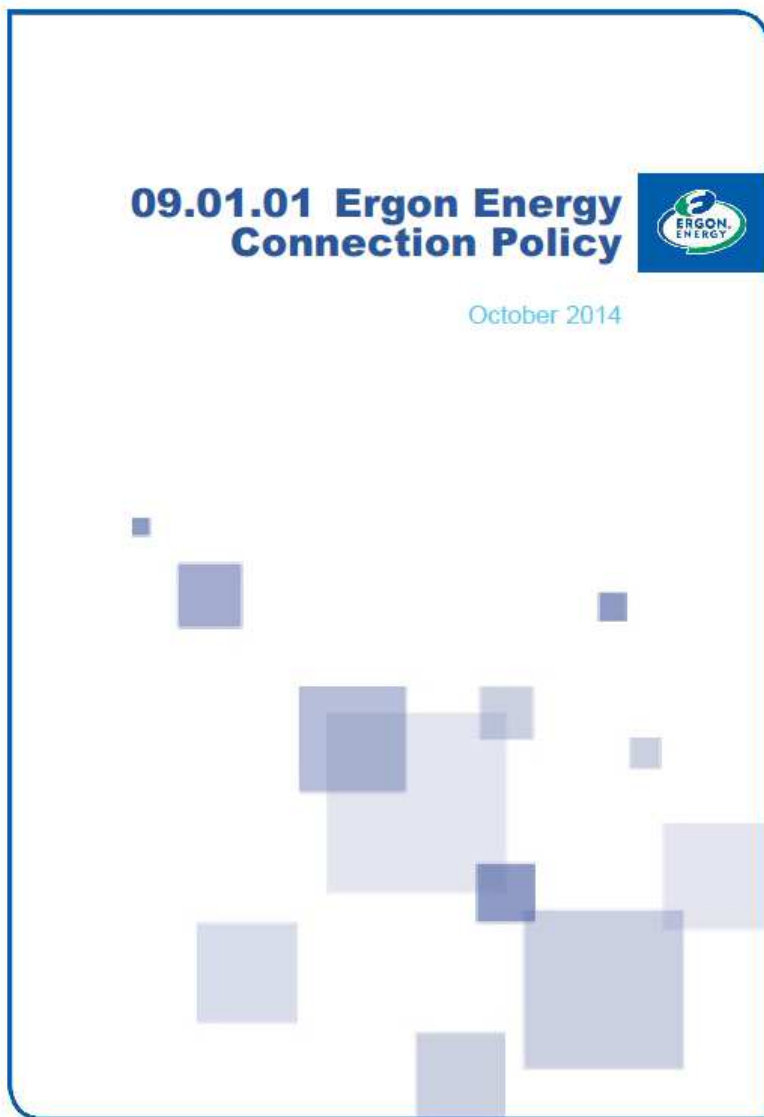
18.5 AER approved connection policy

We have modified Ergon Energy's proposed connection policy to reflect the above preliminary decision on this matter.¹² This revised connection policy is appended to this chapter.

¹² Rule 6.12.3(j) provides that we may amend the proposed connection policy to the extent necessary to enable it to be approved in accordance with the Rules.

**A Appendix: AER approved connection
policy for Ergon Energy**

Click image below to access the document.



09.01.01 Ergon Energy Connection Policy



October 2014



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1. Introduction

1.1 Ergon Energy as a business

Ergon Energy Corporation Limited (Ergon Energy) is a Distribution Network Service Provider that provides distribution services to over 700,000 customers in regional Queensland. Our service area covers around 97 per cent of Queensland and has approximately 150,000 kilometres of power lines and one million power poles.

1.2 Purpose of the Connection Policy

Under clause 6.7A.1 of the National Electricity Rules (the NER), Ergon Energy is required to develop a connection policy that sets out the nature of connection services offered by Ergon Energy and the charges that may apply for those connection services.

The Connection Policy has been developed in accordance with the requirements of the NER and the *Connection charge guidelines for electricity retail customers* (the Guidelines) prepared by the Australian Energy Regulator (AER). In consideration of the requirement in the NER for the Connection Policy to be consistent with the Guidelines¹, Ergon Energy notes that where any changes are made to the Guidelines in the period to which the Connection Policy relates, the Connection Policy will be interpreted and applied in accordance with the Guidelines in force at the time. It is also consistent with the service classifications and definitions set out in the AER's Framework and Approach Paper.²

The Connection Policy replaces the Capital Contributions Policy from 1 July 2015.

The Connection Policy covers the scope of services and charging arrangements for the connection services³ provided by Ergon Energy under Chapter 5A of the NER.⁴ There may also be charges for other services, such as metering installations, which are not covered by the Connection Policy.

1.3 Supporting and technical documentation

The Connection Policy should be read in conjunction with the following relevant Ergon Energy technical connection manuals:

- Major Customer Connection Manual
- Major Customer Connection Guideline
- Developers Handbook
- Ergon Energy Guideline for Small Scale Parallel Inverter Energy Systems up to 30kVA

¹ National Electricity Rules (NER), clause 6.7A.1(b)(i)(ii)

² AER, *Final Framework and approach for Energex and Ergon Energy – Regulatory control period commencing 1 July 2015*, April 2014.

³ Connection services include the services classified by the AER as pre-connection services, connection services and post-connection services.

⁴ The Connection Policy does not apply to registered market participants who connect to the Ergon Energy distribution network under Chapter 5 of the NER. Registered participants should contact Ergon Energy directly with any connection inquiries.

- STNW1170 – Connection Standard for Small Scale Parallel Inverter Energy Systems up to 30kVA
- STNW1165 – Standard for Connection of Embedded Generators in the Ergon Energy Distribution Network
- Alternative Control Services Price List

These manuals, as well as further information on the application process and applicable charges, are available on the Ergon Energy website: www.ergon.com.au

1.4 Contact us

You can contact the customer service centre via Ergon Energy's website:

www.ergon.com.au

Or by calling:

13 10 46

2. General connection pricing principles

2.1 Overview of connection services

Connection services encompass the services required to physically connect premises to the Ergon Energy distribution network. They generally include the design, construction and energisation of connection assets.

In some circumstances, the new connection or connection alteration may require an augmentation of the distribution network to ensure that there is sufficient capacity to service the connection. The new connection or connection alteration may also require a network extension beyond the standard service line.

The following diagrams illustrate the typical connections for a residential customer for overhead and underground supply.

Figure 1. Typical Overhead Connection for Residential Customer

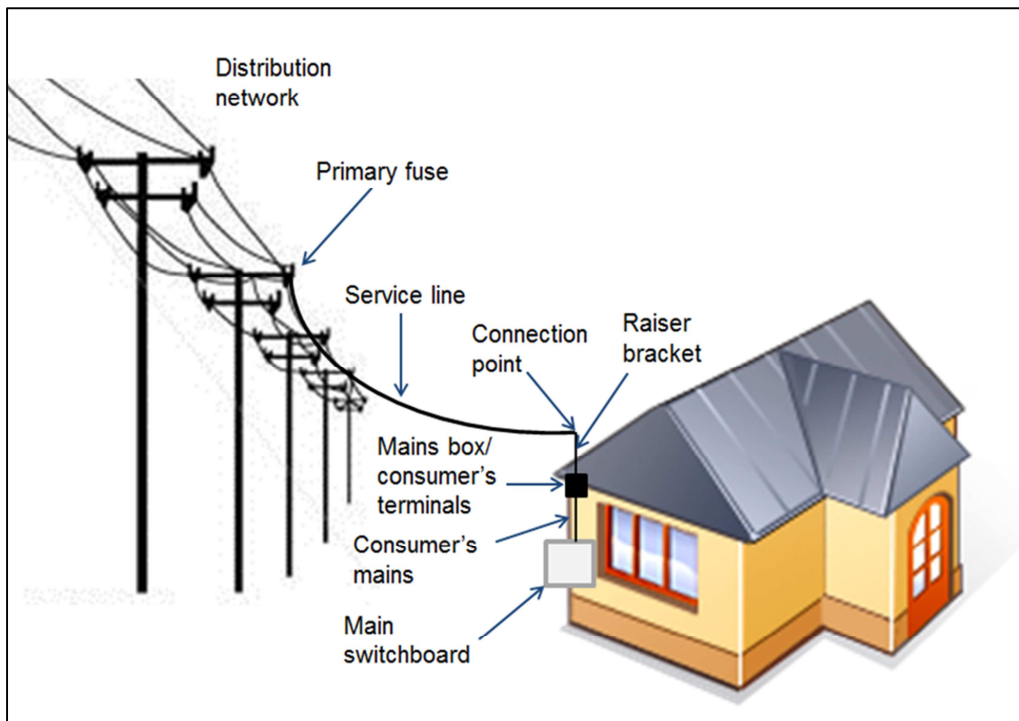
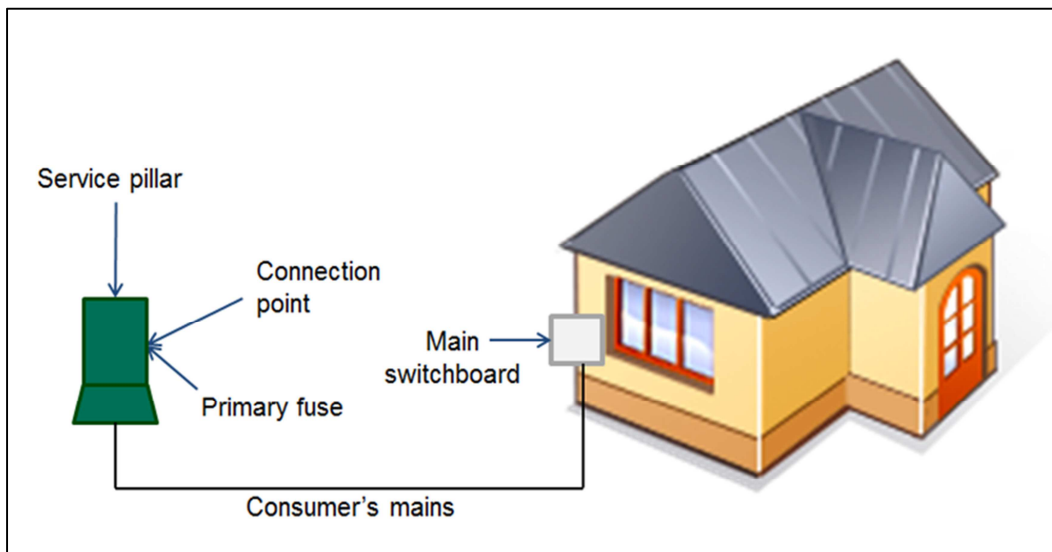


Figure 2. Typical Underground Connection for Residential Customer



There are different types of connection services and connections offers, depending on:

- The applicant's customer classification for the purposes of pricing;
- The nature of the connection; and
- Whether line capacity is readily available.

The following sections detail the categories of customers, the classification of connection services and types of connection offers available, as well as the connection charges that may be applicable.

The Connection Policy does not apply to registered market participants, or any person who is not a registered participant who agrees to, connect to the Ergon Energy distribution network under Chapter 5 of the NER. Registered participants should contact Ergon Energy directly with any connection inquiries. The Connection Policy also does not apply to customers connected to Ergon Energy's isolated networks⁵.

2.2 Classification of customers

As part of defining the relevant services, customers are classified into certain categories, depending upon the particular circumstances of their connection. These categories are:

- Individually Calculated Customers (ICCs);
- Connection Asset Customers (CACs);
- Embedded Generators (EGs); and
- Standard Asset Customers (SACs).

Ergon Energy collectively refers to ICCs, CACs and EGs as "Major Customers". Specific details of these categories are set out in Ergon Energy's AER-approved Pricing Proposal which is available on Ergon Energy's website.

⁵ The Connection Policy does apply to customers connected to Ergon Energy's Mount Isa-Cloncurry network.

For the purposes of determining the appropriate classification of the connection applicant, Ergon Energy will assess the relevant levels of expected electricity import and export, and the estimated energy consumption, from information provided by the connection applicant and in accordance with Ergon Energy's relevant processes and procedures.

2.3 Classification of connection services

The AER regulates the charges that Ergon Energy may impose for specific services. It classifies the connection services⁶ provided by Ergon Energy as either:

- Standard Control Services, which are generally those services that are central to the supply of electricity and provided by Ergon Energy, and includes building and maintaining the shared network. Costs for these services are recovered through network charges for all customers; or
- Alternative Control Services, which are generally customer specific or customer requested services. These services are commonly provided by Ergon Energy, but some services may be subject to competition. Costs for connection services classified as Alternative Control Services are recovered through charges levied directly on the connection applicant.⁷

The following table summarises the classification of Ergon Energy's connection services determined by the AER.

Table 1: Classification of connection services

| Service | Description | Classification of service |
|-------------------------------------|--|-----------------------------|
| General Connection Enquiry Services | Provision of standard information and general advice during a connection enquiry | Standard Control Service |
| Connection Application Services | Services associated with assessing a connection application, making a connection offer and negotiating offer acceptance | Alternative Control Service |
| Pre-connection Consultation Service | Additional support services provided by Ergon Energy, on request, during the enquiry and application process, such as site visits | Alternative Control Service |
| Small Customer Connections | Design, construction, commissioning and energisation of connection assets for customers classified as SAC. This includes connections for micro embedded generation (as defined in AS4777), public lighting ⁸ and unmetered supply | Standard Control Service |

⁶ For the purposes of this document, connection services include pre-connection and post-connection services as classified by the AER.

⁷ AER, *Final Framework and approach for Energex and Ergon Energy – Regulatory control period commencing 1 July 2015*, April 2014.

⁸ This applies to the connection assets only, and not the construction of the public lighting installations.

| Service | Description | Classification of service |
|--|--|-----------------------------|
| Major ⁹ Customer Connections | Design and construction of connection assets for major customers, which are defined as ICCs, CACs and EGs with inverter capacity above the threshold for micro embedded generation as per AS4777. This includes temporary connections in place as part of the construction of a major customer connection. | Alternative Control Service |
| Commissioning and Energisation of Major Customer Connections | Commissioning and energisation of major customer connections to allow conveyance of electricity | Alternative Control Service |
| Real Estate Development Connection | Design, construction, commissioning and energisation of connection assets for real estate developments. This includes all work, including upstream augmentation, necessary to connect the development to the distribution network | Alternative Control Service |
| Removal of Network Constraint for Embedded Generation | Augmentation of the network, including upstream augmentation, to remove a constraint faced by an embedded generator | Alternative Control Service |
| Temporary connections | Customer requested temporary connection for short term supply, which is defined as supply that is required for 12 months or less. This includes temporary builder's supply (other than a temporary connection in place as part of the construction of a major customer connection) | Alternative Control Service |
| Connection Management Services | Work on an existing connection that is requested by a customer, such as: <ul style="list-style-type: none"> moving point of attachment rearrangement of connection assets supply enhancements (e.g. from single phase to three phase) upgrade from overhead service to underground service | Alternative Control Service |

2.4 Types of connection offers

When you apply for a new connection or alteration to an existing connection, Ergon Energy will provide you with either a Basic Connection Offer or a Negotiated Connection Offer, which will set out the terms and conditions of the connection service. The type of connection offer made will depend on the nature of the connection required and whether there is network capacity available.

A **Basic Connection Offer** will generally apply for the following connections:

- Connection of residential and small commercial premises where:

⁹ The AER has classified Large Customer Connections as an Alternative Control Service. Ergon Energy refers to the large customers in this context as Major Customers.

- supply is available (i.e. there is a line available, at the required voltage and with sufficient capacity for the proposed connection);
- there is minimal or no network augmentation required (other than network extension beyond the standard service line); and
- the maximum connection capacity is 80 amperes per phase;
- Connection of micro embedded generation (e.g. PV installations) with exporting capability and inverter capacity as per the definition in AS4777 where there is minimal or no network augmentation required¹⁰;
- Temporary connections for short term supply, which is defined as connection for a period of 12 months or less¹¹; and
- Connection of un-metered supply (other than public lighting).

A **Negotiated Connection Offer** will generally apply for the following connections:

- Connection of residential and small commercial premises where:
 - supply is not readily available; or
 - there is network augmentation required; or
 - the maximum connection capacity exceeds 80 amperes per phase;
- Connections of customers on Single Wire Earth Return (SWER) networks
- Connection of micro embedded generation (e.g. PV installations) with exporting capability and inverter capacity as per the definition in AS4777 where network augmentation is required
- Connections for public lighting, which includes lighting for roads controlled by local or state governments¹²;
- Major customer connections, which are connections for customer defined as ICCs, CACs and EGs;
- Connection of non-registered embedded generation that is above 10 kW on 1 phase or above 30 kW on three phases; and
- Connections for real estate developments, which includes the commercial development of land in one or more of the following ways:

¹⁰ This is generally for any micro embedded generator with exporting capability and inverter capacity as per the definition in AS4777 which is:

- less than or equal to 2kVA
- less than or equal to 3.5kVA where reactive power control is set to 0.9 lagging except on SWER networks

Non-exporting Inverter Energy Systems up to 5kVA that pass an automatic check of the distribution transformer loading.

¹¹ This includes connections for mobile blood banks, school fetes, major events and other non-residential connections with a finite connection period of 12 months or less. It excludes temporary connections in place as part of the construction of a major customer connection.

¹² Public lighting is defined as street lighting for local councils and state government departments, consistent with the definition of street lighting in section 23 of the *Electricity Act 1994* (Qld). All other unmetered lighting is classified as watchman lighting.

- subdivisions;
- construction of commercial or industrial premises (or both), such as shopping centres; and
- construction of multiple new residential premises.

Chapter 5A of the NER also allow for a Standard Connection Offer. Ergon Energy has not defined any connections for which a Standard Connection Offer will apply. However, a Standard Connection Offer may be introduced at a later date.

The following table summarises where in the Connection Policy each type of connection is covered.

Table 2: Further information for each type of connection

| A connection for ... | ... is covered in ... | |
|---|-----------------------|-----------------------|
| | Basic Connection | Negotiated Connection |
| Residential and small commercial premises | Section 3 | Section 4 |
| Micro embedded generation | Section 3 | Section 4 |
| Temporary connection | Section 3 | Section 4 |
| Un-metered supply (excluding public lighting) | Section 3 | Section 4 |
| Public lighting | n/a | Section 4 |
| Real estate developments | n/a | Section 5 |
| Major customer connections | n/a | Section 6 |
| Embedded generation | n/a | Section 6 |

2.5 Connection charges and fees

The connection charges that a connection applicant may be required to pay are the sum of:

- Fees and charges for connection services classified as Alternative Control Services;
- Capital contributions for network extensions, other augmentations or connection assets required to enable the connection to the distribution network; and
- Charges payable to account for any reimbursement schemes.

The following table summarises the connection fees and charges approved by the AER. Further information on specific charges is available in the ACS Price List, which is available from the Ergon Energy website: www.ergon.com.au

Table 3: Summary of connection fees and charges

| Fee or Charge Group | Description |
|---|--|
| Fees for Connection Application Services | <p>Fees to cover the costs incurred by Ergon Energy in providing connection application services, including:</p> <ul style="list-style-type: none"> assessing the connection application, preparing a connection offer and negotiating offer acceptance. These application fees vary by the type of connection service the application relates to; carrying out additional planning studies and analysis required to assess an application for a small customer connection; feasibility and concept scoping, including planning and design, for major customer connections; carrying out a tender process for connection services on behalf of a connection applicant; and undertaking a protection and power quality assessment prior to connection. |
| Fees for Pre-connection Consultation Services | <p>Fees to cover the pre-connection consultation services provided by Ergon Energy. These are site-specific fees relating to connection enquiries and the assessment of the connection application, such as:</p> <ul style="list-style-type: none"> undertaking a pre-connection site inspection in order to determine the nature of the connection being sought; provision of site-specific connection information and advice on request of the connection applicant; preparation of preliminary designs and planning reports for major customer connections; and provision of advice, design and specification on request of a connection applicant considering a customer build-own-operate asset ownership option. |
| Fees for Connection Services | <p>Fees to cover the cost of the connection assets or alteration of the existing connection, including design, construction, commissioning and energisation of connection assets and removal of network constraints for embedded generators. Fees for connection services will need to be paid directly by the connection applicant where the connection service is classified as an Alternative Control Service, i.e. connection alterations, temporary connections, major customer connections, real estate development connections and removal of network constraints for embedded generation (other than micro embedded generation). Costs relating to connection services classified as Standard Control Services (i.e. small customer connections, including micro embedded generation) are recovered through other network charges.</p> |
| Capital Contribution Charge | <p>A contribution towards an extension or other augmentation of the distribution network or other connection assets required to enable the connection to the distribution network. Connection applicants will need to pay a capital contribution for any network extensions required for their new connection or connection alteration. Capital contributions for augmentation of the shared network may also apply for Negotiated Connection Offers where the demand exceeds 10 kVA on SWER lines or 80 amperes on 3 phase low voltage supply. Capital contributions for augmentation of the shared network will not apply to major customer connections.</p> |
| Reimbursement Scheme Charge | <p>Where a connection is made to an extension funded by an original customer, Ergon Energy may be required to refund customers already connected to the extension under a reimbursement scheme (pioneer scheme). The connection applicant (the subsequent customer) may be required to make a payment equivalent to the refund.</p> |

The charges payable for your specific connection application will depend on the nature of the connection service you require, your demand and consumption profile and the work involved in establishing the connection.

2.6 Capital contribution

Ergon Energy's network charges for Standard Control Services are based on assumptions about the typical nature of connections and the number of new connections to be made over the planning horizon¹³, which in turn determines the required capacity of the network. Where a new connection or connection alteration is non-standard and / or made outside of the planning horizon, Ergon Energy incurs costs that are not recovered through the network charges for Standard Control Services.

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 and will be required to be paid as set out in section 7.2.

Capital contributions for network augmentation (other than a network extension beyond the standard service line) are not applicable where the:

- connection is made under the terms and conditions of a Basic Connection Offer; or
- maximum demand at the connection point is less than 10 kVA on SWER lines or 80 amperes on 3 phase low voltage supply (the augmentation threshold); or
- connection is defined as a major customer connection.

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

$$\text{Capital Contribution (CC)} = \text{ICCS} + \text{ICSN} - \text{IR}(n=X)$$

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 costs exceed the incremental revenue (i.e. CC > \$0).

The **Incremental Cost Customer Specific (ICCS)** is the incremental costs incurred by Ergon Energy that are specific to the connection, such as network extension assets and augmentation of connection assets at the premises. The ICCS is calculated as the sum of the incremental costs that are specific to the connection, such as:

- provision or augmentation of any connection assets at the customer's premises;
- network extension costs;

¹³ The Planning Horizon for Ergon Energy's future works is: Distribution Networks (up to 11/22kV) – 5 years; Zone Substations & Sub-Transmission Networks – 10 years.

- administration costs (including design and certification costs); and
- tender costs (where applicable).

For the ICCS, Ergon Energy will:

- determine the cost in a fair and reasonable manner and ensure that the cost estimate is reflective of the efficient cost of performing the service; and
- calculate the cost on the basis of the least cost, technically acceptable standard necessary for the connection.

The **Incremental Cost Shared Network (ICSN)** is the network cost incurred by Ergon Energy as a result of the new or altered connection, but which are 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:

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

Where:

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

Demand Estimate = Estimated maximum demand at the connection point, measured in kVA

The unit rate used to determine the ICSN are set out in the document Unit Rates for Capital Contributions¹⁴, which is available on Ergon Energy's website. The process for determining the estimated maximum demand is set out in section 2.7.

The **Incremental Revenue (IR(n=X))** is the present value of the incremental revenue stream expected to be received from the new or altered connection over a pre-defined period. It is determined over a period of 30 years for residential premises. For commercial and industrial premises, the period will vary depending on the nature of the premises and will be defined in the connection offer. To estimate the incremental revenue, Ergon Energy will:

- apply the pre-tax weighted average cost of capital as set out in the AER Final Distribution Determination; ~~and~~
- use the price path (i.e. X-factors) set out in the relevant AER Final Distribution Determination ~~that is applicable at the time of the connection offer, until the end of the regulatory control period to which that Distribution Determination applies; and~~
- after the end of the relevant Distribution Determination period, escalate annually (s), with by the Consumer Price Index¹⁵ (CPI) applied annually to the price for that the remaining assumed ~~life of the connection~~ period of the connection for which there is no Final Distribution Determination.

¹⁴ 09.02.01 Unit Rates for Capital Contributions

¹⁵ The CPI used is the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities, March to March Quarter, (ABS Catalogue 6401.0).

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

2.7 Measuring demand and consumption

In determining the appropriate type of connection offer and, if required, capital contribution, Ergon Energy will 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, Ergon Energy will base the estimates on load patterns of similar customers and apply the general principles we use to determine a customer's tariff class as set out in our annual AER-approved Pricing Proposal.

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

2.7.1 Provisional estimates for capital contributions

Where Ergon Energy and the connection applicant (other than a real estate developer)¹⁶ cannot reach agreement on the estimated demand and consumption for use in determining the capital contribution payable for the connection point, Ergon Energy 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. Ergon Energy will assess the additional charge or refund payable within three (3) 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.

2.8 Reimbursement scheme for customer funded assets

Where an original customer funds a network extension and / or other dedicated connection assets, Ergon Energy will establish a reimbursement scheme (pioneer scheme) for the network extension and / or other dedicated connection assets. The scheme will determine the charge payable by any subsequent customers that utilise the network extension and / or dedicated connection assets in reimbursement of existing customers for their prior contributions to the network extension and / or dedicated connection assets.

The application of the reimbursement scheme varies with the type of connection service, as follows:

- for major customer connections, to all network extensions and other dedicated connection assets funded by the connection applicant; and

¹⁶ Where Ergon Energy and a real estate developer cannot agree on the forecast level of consumption and / or demand for the premises within the development for the purposes of determining the capital contribution, the connection offer will be based on Ergon Energy's reasonable estimate of the level of future consumption and / or demand.

- for all other connections, to network extension assets funded by capital contributions paid by the connection applicant.

The contribution towards the reimbursement scheme will be determined based on the expected usage of the network extension and / or dedicated connection assets by the subsequent customer and the remaining life of the network extension and / or dedicated connection assets. Calculation of the reimbursement scheme amounts will be in accordance with the requirements of the AER Connection Charge Guidelines in force at the time.

Ergon Energy will apply the following principles to reimbursement schemes:

- A reimbursement scheme will apply for seven (7) years after the original network extension and / or other dedicated connection asset was connected to the Ergon Energy distribution network.
- Network extension assets will be depreciated on a straight line basis over a period of 20 years for the purpose of the scheme. Other dedicated connection assets will be depreciated on a straight line basis over the standard life for the relevant assets class approved by the AER in the revenue determination.
- A refund under a reimbursement scheme for a network extension will only be paid where the calculated refund threshold is met. For 2015-16, the refund threshold is \$1,080¹⁷. The threshold will be increased annually on 1 July for the movement in the annual CPI.¹⁸
- Where a refund is payable for the original contribution, the refund will be paid to the current owner of the original connecting premises.
- Where the network extension and / or dedicated connection asset was built by a third party, the original cost of the extension and / or dedicated connection asset will be estimated by Ergon Energy as the amount it would have charged to build the network extension and / or dedicated connection asset.
- Where the original extension and / or dedicated connection asset was built to a higher standard or capacity than the least cost technically acceptable standard required by the original customer, only the cost of constructing the network extension and / or dedicated connection asset to the least cost technically acceptable standard will be used for the purpose of the reimbursement scheme.

¹⁷ For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy's Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

¹⁸ The CPI used is the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities, March to March Quarter, (ABS Catalogue 6401.0).

3. Basic connections

3.1 Overview

Ergon Energy will make a Basic Connection Offer where:

- supply is available (i.e. there is a line available, at the required voltage and with sufficient capacity for the proposed connection);
- there is minimal or no network augmentation required (other than network extension beyond the standard service line); and
- the maximum connection capacity is 80 amperes per phase.

Basic Connections Offers are most commonly applicable to new connections or connection alterations for:

- residential, rural and small commercial premises classified as SACs;
- micro embedded generation (e.g. PV installations) with exporting capability and inverter capacity as per AS4777, which are also classified as SACs¹⁹;
- temporary connection for short term supply, which is defined as connection for a period of 12 months or less; and
- un-metered supply (other than public lighting).

Basic connections are provided under the terms and conditions of the Ergon Energy *Model Standing Offer for Basic Connection*, which is available from Ergon Energy's website.

All connection applicants have a right to negotiate the terms and conditions of their connection offer from Ergon Energy. Where the connection applicant elects to negotiate the terms and conditions of their connection, the *Model Standing Offer for Basic Connection* will not apply. In these circumstances, Ergon Energy will prepare a Negotiated Connection Offer (see section 4).

Ergon Energy notes that a Basic Connection Offer will not apply where network augmentation is required.

3.2 Fees and charges

The following table sets out the fees and charges that may be payable under a *Model Standing Offer for Basic Connection*.

¹⁹ This is generally for any micro embedded generator with exporting capability and inverter capacity as per the definition in AS4777 which is:

- less than or equal to 2kVA
- less than or equal to 3.5kVA where reactive power control is set to 0.9 lagging except on SWER networks

Non-exporting Inverter Energy Systems up to 5kVA that pass an automatic check of the distribution transformer loading.

Table 4: Fees under a Basic Connection Offer

| Service Charge Group | Small Customer Connection | Temporary Connection | Unmetered Supply (other than public lighting) |
|---|---------------------------|--------------------------|---|
| Application Fee | √ | √ | √ |
| Fees for other Connection Application Services | As required | As required | As required |
| Fees for Pre-connection Consultation Services | As required | As required | As required |
| Connection Charge – New Connection | × | √ | × |
| Connection Charge – Connection Alteration | As required | As required | As required |
| Capital Contribution – Network Extension | As required ¹ | As required ¹ | As required ¹ |
| Capital Contribution – Other Network Augmentation | × | × | × |
| Reimbursement Scheme Charge | As required | As required | As required |

1. Where the connection needs works outside the scope of a standard connection, e.g. where the line exceeds the standard service line.

All connections made under a Basic Connection Offer will be required to pay a Connection Application Fee, which is a charge to cover the cost of developing and assessing the connection offer. Additionally, if an extension to the distribution network is necessary in order to provide the connection service, connection charges for the service may include a reasonable capital contribution towards the cost of the extension necessary to provide the service. A capital contribution will be required where the incremental cost of the standard control connection services exceeds the incremental revenue expected to be derived from the standard control connection services.

It is assumed that connection applicants for residential, rural and small commercial premises, and unmetered supply will be classified as SACs, which means that the relevant connection service is a small customer connection, which is classified as a Standard Control Service. This means that the connection applicant will not be required to pay for the connection service directly to Ergon Energy. Rather the cost of providing these connection services will be recovered from customers through network charges included in the electricity tariffs (i.e. retailer's bills).

Where connection alterations and temporary connections are classified as Alternative Control Services, the connection applicant will be required to pay for the connection services directly to Ergon Energy in accordance with the Basic Connection Offer made by Ergon Energy.

Connections subject to a Basic Connection Offer are exempt from the requirement to pay capital contributions for network augmentation (other than network extensions beyond the standard service line). Capital contributions for network extensions are directly payable to Ergon Energy in accordance with section 7.2.

3.3 Capital contributions

Under a Basic Connection Offer, the connection applicant may be required to pay a capital contribution if a network extension is required to complete the connection.

For the purpose of small customer connections, which are classified as Standard Control Services, a network extension is the extension of the network beyond the standard service line of 20 metres for an overhead service line and 7 metres for an underground service line.

Any capital contributions will be calculated in accordance with the formula set out in section 2.6, using a period of 30 years for residential premises. For commercial and industrial premises, the period will vary depending on the nature of the premises and will be defined in the connection offer.

Where a Basic Connection Offer is made, the connection applicant is exempt from paying any capital contributions for shared network augmentation (such as a requirement to increase the distribution network capacity because of the applicant's connection).

3.4 Reimbursement scheme

A reimbursement scheme will be established where a basic connection applicant funds a network extension via a capital contribution. The original customer may be entitled to a refund of part of their contribution where a subsequent customer connects to the Ergon Energy distribution network using that network extension.

A connection applicant may also be required to make a reimbursement scheme payment where the connection will make use of a network extension to which a reimbursement scheme applies (i.e. that was funded by an original customer via a capital contribution).

Further detail on the application of reimbursement schemes may be found in Section 2.8.

3.5 Security fee

Ergon Energy may require the payment of a security fee where Ergon Energy considers that there is a high risk that we may not earn the estimated incremental revenue from the connection services Ergon Energy is to provide (refer to section 2.6 for details of how the incremental revenue is calculated).

Further details of the application of security fees are provided in section 7.1.

3.6 Payment of connection charges

The total connection charges payable are the sum of the fees for any services classified as Alternative Control Services, capital contributions and reimbursement scheme charges.

Ergon Energy will generally require the connection applicant to pay the charges for connection application services and pre-connection consultation services at the time the services are provided.

Connection fees, capital contributions and reimbursement scheme charges are generally payable at the time the connection offer is accepted, and prior to any construction work being undertaken.

Where the connection charge is more than \$5,400 (2015 dollars)^{20 21}, the payments may be staged if the construction:

- is not expected to commence for 3 months or more; or
- can be logically segmented into distinct stages of construction.

Further information on the timing of payments for connection charges is set out in section 7.2.

3.7 Further information

Further information on basic connections is available in the following Ergon Energy publications:

- Ergon Energy Guideline for Small Scale Parallel Inverter Energy Systems up to 30kVA
- STNW1170 – Connection Standard for Small Scale Parallel Inverter Energy Systems up to 30kVA
- Alternative Control Services Price List

These publications, and other related fact sheets, are available from the Ergon Energy website:

www.ergon.com.au

You can contact the Customer Connection Group via email at:

customerconnections@ergon.com.au

or phone:

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²⁰ For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy's Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

²¹ 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, March to March Quarter, (ABS Catalogue 6401.0).

4. Negotiated connections for small customers

4.1 Overview

Ergon Energy will make a Negotiated Connection Offer for small customer connections where:

- supply is not readily available;
- there is network augmentation required;
- the maximum connection capacity exceeds 80 amperes per phase; or
- the connection applicant elects to negotiate the terms and conditions of the connection.

A Negotiated Connection for small customers applies for those customers that do not meet the requirements for a Basic Connection Offer or the definition of a real estate developer (see section 5) or major customer connection (see section 6), and includes:

- residential, rural and small commercial premises classified as SACs;
- Connections of customers on SWER networks
- micro embedded generation (e.g. PV installations) with exporting capacity and inverter capacity as per AS4777, which is also classified as SACs;
- temporary connection for short term supply, which is defined as connection for a period of 12 months or less; and
- unmetered supply (including public lighting).

4.2 Fees and Charges

The following table sets out the fees and charges that may be payable under a Negotiated Connection Offer for small customer connections.

Table 5: Fees under a Negotiated Connection Offer for small customers

| Service Charge Group | Small Customer Connection | Temporary Connection | Unmetered Supply (including public lighting) |
|--|---------------------------|--------------------------|--|
| Application Fee | √ | √ | √ |
| Fees for other Connection Application Services | As required | As required | As required |
| Fees for Pre-connection Consultation Services | As required | As required | As required |
| Connection Charge – New Connection | × | √ | × |
| Connection Charge – Connection Alteration | As required | As required | As required |
| Capital Contribution – Network Extension | As required ¹ | As required ¹ | As required ¹ |

| Service Charge Group | Small Customer Connection | Temporary Connection | Unmetered Supply (including public lighting) |
|---|---------------------------|----------------------|--|
| Capital Contribution – Other Network Augmentation | As required | As required | As required |
| reimbursement Scheme Charge | As required | As required | As required |

1. Where the connection needs works outside the scope of a standard connection, e.g. where the line exceeds the standard service line.

All connections made under a Negotiated Connection Offer will be required to pay a Connection Application Fee, which is a charge to cover the cost of developing, assessing and negotiating the connection offer.

It is assumed that connection applicants for residential, rural and small commercial premises will be classified as SACs, which means that the relevant connection service is a small customer connection, which is classified as a Standard Control Service. This means that the connection applicant will not be required to pay for the connection service directly to Ergon Energy. Rather the cost of providing these connection services will be recovered from customers through network charges recovered via the retailer's bill.

Connections subject to a Negotiated Connection Offer for small customers will be required to pay for network extensions and other network augmentations in accordance with the capital contributions provisions set out in Chapter 2.

Where connection alterations and temporary connections are classified as Alternative Control Services, the connection applicant will be required to pay for the connection services directly to Ergon Energy in accordance with the Negotiated Connection Offer made by Ergon Energy.

4.3 Capital contributions

A capital contribution for network extension may be applicable for connections that exceed the scope of a standard connection, such as the standard service line. A capital contribution for other network augmentation may also be applicable if the new connection or connection alteration exceeds the augmentation charge threshold. The augmentation charge threshold is set at:

- 10 kVA on SWER lines; or
- a maximum capacity of a 80 amperes on 3 phase low voltage supply, elsewhere in Ergon Energy's distribution network.

In these circumstances, any capital contributions will be calculated in accordance with the formula set out in section 2.6.

4.4 Reimbursement scheme

A reimbursement scheme will be established where a connection applicant funds a network extension via a capital contribution. The original customer may be entitled to a refund of part of their contribution where a subsequent customer connects to the Ergon Energy distribution network using that network extension.

A connection applicant may also be required to make a reimbursement scheme payment where the connection will make use of a network extension that a reimbursement scheme applies to (i.e. that was funded by an original customer via a capital contribution).

Further detail on the application of reimbursement schemes may be found in Section 2.8.

4.5 Security fee

Ergon Energy may require the payment of a security fee where Ergon Energy considers that there is a high risk that we may not earn the estimated incremental revenue from the connection services Ergon Energy is to provide (refer to section 2.6 for details of how the incremental revenue is calculated).

Further details of the application of security fees are provided in section 7.1.

4.6 Payments of connection charges

The total connection charges payable are the sum of the fees for any services classified as Alternative Control Services, capital contributions and reimbursement scheme charges.

Ergon Energy will generally require the connection applicant to pay the charges for connection application services and pre-connection consultation services at the time the services are provided.

Connection fees, capital contributions and reimbursement scheme charges are generally payable at the time the connection offer is accepted, and prior to any construction work being undertaken. Where the connection charge is more than \$5,400 (2015 dollars)^{22 23}, the payments may be staged if the construction:

- is not expected to commence for 3 months or more; or
- can be logically segmented into distinct stages of construction.

Further information on the timing of payments for connection charges is set out in section 7.2.

4.7 Further information

Further information on negotiated connections for small customers is available in the following Ergon Energy publications:

- Ergon Energy Guideline for Small Scale Parallel Inverter Energy Systems up to 30kVA
- STNW1170 – Connection Standard for Small Scale Parallel Inverter Energy Systems up to 30kVA
- Alternative Control Services Price List

These publications, and other related fact sheets, are available from the Ergon Energy website:

www.ergon.com.au

²² For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy's Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

²³ 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, March to March Quarter, (ABS Catalogue 6401.0).

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5. Real estate developers

5.1 Overview

Real estate developers are responsible for the design and construction of electrical reticulation and connection assets within the development. For the purpose of this connection policy, real estate development includes the commercial development of land in one or more of the following ways:

- subdivisions;
- construction of commercial and / or industrial premises (e.g. shopping centres); and
- construction of multiple new residential premises.

Connection of real estate developments to the Ergon Energy distribution network typically involves the extension of the distribution network and upstream network augmentation required to enable the development to be connected to the Ergon Energy distribution network, allowing for the expected future intended usage of the premises within the development.

All connections for real estate developments will be subject to a Negotiated Connection Offer. Connection applications for real estate development connections will only be accepted from the real estate developer.

5.2 Connection offer and charges

The connection of real estate developments will be on the basis of a Negotiated Connection Offer from Ergon Energy, and may be subject to the following charges:

- Charges for any services classified as Alternative Control Services, including:
 - Connection Application Fees;
 - Fees for other Connection Application Services;
 - Fees for Pre-connection Consultation Services;
 - Fees for design and construction of connection assets for the real estate development²⁴;
 - Fees for the commissioning and energisation of the connection assets for the real estate development; and
- Reimbursement scheme charges.

These charges relate solely to the connection of the real estate development to the Ergon Energy distribution network, and are additional to any costs the real estate developer may incur in the design and construction of reticulation assets within the development.

²⁴ This includes all work, including upstream augmentation, necessary to connect the development to the distribution network. In addition, where the works are outside the Planning Horizon, the real estate developer will be required to fully fund the cost of the works. However, where the works are within the Planning Horizon, the real estate developer will be required to pay any costs associated with advancement of the works.

The connection charges are payable in accordance with the terms and conditions set out in Ergon Energy's Negotiated Connection Offer.

5.3 Capital contributions

Real estate development connections, which include the upstream augmentations required to enable the development to be connected to the distribution network, are classified as Alternative Control Services. Therefore, there will be no capital contributions applicable since capital contributions apply only to Standard Control Services.

5.4 Reimbursement scheme

Ergon Energy will establish a reimbursement scheme for any network extensions that are:

- funded by the real estate developer; and
- physically located outside the boundary of the real estate development.

Real estate developers will be entitled to access the reimbursement scheme, unless an alternative arrangement is agreed with Ergon Energy. Further detail on the application of reimbursement schemes may be found in section 2.8.

5.5 Security fee

Ergon Energy may require the payment of a security fee where Ergon Energy considers that there is a high risk that we may not earn the estimated incremental revenue from the connection services Ergon Energy is to provide (refer to section 2.6 for details of how the incremental revenue is calculated).

Further details of the application of security fees are provided in section 7.1.

5.6 Payment of connection charges

The total connection charges payable are the sum of the fees for any services classified as Alternative Control Services and reimbursement scheme charges.

Ergon Energy will generally require the connection applicant to pay the charges for connection application services and pre-connection consultation services at the time the services are provided.

Connection fees and reimbursement scheme charges are generally payable at the time the connection offer is accepted, and prior to any construction work being undertaken. Where the connection charge is more than \$5,400 (2015 dollars)^{25 26}, the payments may be staged if the construction:

- is not expected to commence for 3 months or more; or
- can be logically segmented into distinct stages of construction.

²⁵ For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy's Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

²⁶ 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, March to March Quarter, (ABS Catalogue 6401.0).

Further information on the timing of payments for connection charges is set out in section 7.2.

5.7 Further information

Further information for connection of real estate developments to the Ergon Energy distribution network is available in the following publications:

- Developer Handbook
- New Connections for Developers' Charter

These publications, and other related fact sheets, are available from Ergon Energy's website:

www.ergon.com.au

You can contact the Customer Connection Group via email:

ccg@ergon.com.au

or phone:

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6. Major customers and embedded generation

6.1 Overview

This chapter applies to connection services provided to major customers, which are defined as ICCs, CACs and EGs (other than real estate developers).

All connections for major customers will be subject to a Negotiated Connection Offer from Ergon Energy, to the extent the services are provided by Ergon Energy.

6.2 Connection offer and charges

Connection charges for major customer may include:

- Charges for any services that are classified as Alternative Control Services, including:
 - Connection application services;
 - Pre-connection consultation services;
 - Design and construction of connection assets (including network extensions);
 - Commissioning and energisation of connection assets;
 - Connection alterations; and
 - For embedded generation, upstream works required to enable the removal of network constraints²⁷; and
- Reimbursement scheme payments.

6.2.1 Contestability of services

The design and construction of dedicated connection assets for a major customer connection is a contestable service, subject to a risk assessment, which means that the connection applicant may either engage Ergon Energy or a suitably qualified and experienced external consultant to provide these services. Generally, the connection applicant has three options for the design and construction of connection assets:

- Connection applicant designs, builds, owns and maintains the assets;
- Ergon Energy designs, builds, owns and maintains the assets; or
- Connection applicant designs, builds and then transfers the connection assets to Ergon Energy.

Further information about contestability of services and connection asset ownership is available in Ergon Energy's Major Customer Connection Manual and associated fact sheets.

²⁷ Where the necessary works are outside the Planning Horizon, the customer will be required to fully fund the cost of the works. However, where the works are within the Planning Horizon, the customer will be required to pay any costs associated with advancement of the works.

If the connection applicant engages Ergon Energy to provide the connection services, payment must be made in accordance with the Negotiated Connection Offer made by Ergon Energy.

6.3 Reimbursement scheme for customer funded assets

A reimbursement scheme will be established where a connection applicant funds a network extension and / or other dedicated connection assets. The original customer may be entitled to a refund of part of their contribution where subsequent customer connects to the Ergon Energy distribution network using that network extension and / or other dedicated connection assets.

A connection applicant may also be required to make a reimbursement scheme payment where the connection will make use of a network extension that a reimbursement scheme applies to (i.e. that was funded by a previous customer).

Further detail on the application of reimbursement schemes may be found in Section 2.8.

6.4 Security fee

Ergon Energy may require the payment of a security fee where Ergon Energy considers that there is a high risk that we may not earn the estimated incremental revenue²⁸ from the connection services Ergon Energy is to provide.

Further details of the application of security fees are provided in section 7.1.

6.5 Payment of connection charges

The total connection charges payable are the sum of the fees for any services classified as Alternative Control Services and reimbursement scheme charges.

Ergon Energy will generally require the connection applicant to pay the charges for connection application services and pre-connection consultation services at the time the services are provided.

Connection fees and reimbursement scheme charges are generally payable at the time the connection offer is accepted, and prior to any construction work being undertaken. Where the connection charge is more than \$5,400 (2015 dollars)^{29 30}, the payments may be staged if the construction:

- is not expected to commence for 3 months or more; or
- can be logically segmented into distinct stages of construction.

Further information on the timing of payments for connection charges is set out in section 7.2.

²⁸ For the purposes of estimating the security fee, the incremental revenue is calculated in the same manner as for a capital contribution as set out in section 2.6.

²⁹ For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy's Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

³⁰ 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, March to March Quarter, (ABS Catalogue 6401.0).

6.6 Registered Participants

Connections for Registered Participants are subject to the provisions of Chapter 5 of the NER. However, they are subject to the same fees and charges as major customer connections.

6.7 Further information

Relevant information for major customer connections is available from the major customer connections section of the Ergon Energy website:

www.ergon.com.au

You can contact the Major Customer Connection Group via email:

majorconnections@ergon.com.au

or phone:

13 10 46

7. Other matters

7.1 Security fee

Ergon Energy may require the payment of a security fee where Ergon Energy considers that there is a high risk that we may not earn the estimated incremental revenue from the connection services Ergon Energy is to provide (refer to section 2.6 for details of how the incremental revenue is calculated).

Should Ergon Energy require a security fee, it may require an amount to be paid either upfront, or a financial security³¹ to be provided (in Ergon Energy's discretion) in the amount which is the lesser of the incremental revenue at risk of non-recovery or the incremental cost incurred by Ergon Energy.

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

- interest³² earned on the security, 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.

Ergon Energy 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 Ergon Energy; 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.

7.2 Payment of connection charges

Ergon Energy will generally require the connection applicant to pay the charges for connection application services and pre-connection consultation services at the time the services are provided.

Connection fees, capital contributions and reimbursement scheme charges are generally payable at the time the connection offer is accepted, and prior to any construction work being undertaken.

³¹ Such as a bank guarantee,

³² Generally, Ergon Energy does not earn interest on the security fees it holds.

Where these connection charges are more than the prepayment threshold of \$5,400 (2015 dollars)^{33 34}, the payments may be staged if the construction:

- is not expected to commence for three (3) 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 (3) months or more, the following staged payments may apply:

- At connection offer acceptance:
 - sunk costs for design and administration already incurred by Ergon Energy;
 - costs for design and administration that Ergon Energy will incur immediately after offer acceptance; and
 - costs for specialised or non-standard assets that Ergon Energy will need to procure prior to construction commencing; and
- Balance of all connection charges three (3) weeks prior to construction commencement.

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

- At connection offer acceptance:
 - sunk costs for design and administration already incurred by Ergon Energy
 - costs for design and administration that Ergon Energy will incur immediately after offer acceptance; and
 - costs for specialised or non-standard assets that Ergon Energy will need to procure prior to construction commencing; and
- Three (3) weeks prior to commencement of each construction stage: a staged payment of the connection charge that reasonably reflects the costs that Ergon Energy will incur in the construction stage.

7.3 Accounting treatment of capital contributions

Under the NER, Ergon Energy may not recoup a return on, or of³⁵, the asset for assets that are funded through capital contributions. Accordingly, these assets 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 reticulation and connection assets within a real estate development, the fair and reasonable value of the contribution will be determined as using the AER approved formula for major customers.

³³ For the purposes of the draft Connection Policy a forecast CPI figure consistent with Ergon Energy’s Regulatory Proposal has been used. CPI will be updated for actual CPI prior to the commencement of the 2015-16 financial year.

³⁴ 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, March to March Quarter, (ABS Catalogue 6401.0).

³⁵ The return of the asset refers to depreciation.

7.4 Transitional arrangements

This Connection Policy applies to all connection offers made by Ergon Energy on or after 1 July 2015.

The following table summarises the transitional arrangements.

Table 6: Transitional arrangements

| Scenario | Transitional Arrangements |
|---|--|
| Application lodged with Ergon Energy before 26 April 2015 (i.e. more than 65 days before 1 July 2015) | The new connection or connection alteration to be made as per the Capital Contributions Policy in force for 2014-15. |
| Application lodged with Ergon Energy on or after 27 April 2015 (i.e. up to 64 days before 1 July 2015), but prior to 1 July 2015. | The connection offer made by Ergon Energy will be consistent with this Connection Policy. |
| Application lodged with Ergon Energy on or after 1 July 2015 | The connection offer made by Ergon Energy will be consistent with this Connection Policy. |

For more information on transitional arrangements, please contact Ergon Energy on 13 10 46.

7.5 Dispute resolution

Where a connection applicant has any dispute regarding Ergon Energy's connection charges, or the terms and conditions of a connection agreement with Ergon Energy, such disputes will be managed in accordance with Ergon Energy's standard complaints and dispute resolution procedure, which is available on Ergon Energy's website. Ergon Energy will endeavour to resolve any disputes reasonably and fairly.

A connection applicant is also entitled to refer the dispute to the AER. Information on the AER's customer connection dispute resolution process is available on the AER's website.

Glossary

Abbreviations

| | |
|--------------|------------------------------------|
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| CC | Capital Contribution |
| CPI | Consumer Price Index |
| DUOS | Distribution Use of System |
| EG | Embedded Generation |
| Ergon Energy | Ergon Energy Corporation Limited |
| ICCS | Incremental Cost Customer Specific |
| ICSN | Incremental Cost Shared Network |
| IR | Incremental Revenue |
| kVA | Kilovolt amperes |
| PV | Photovoltaic |

Definitions

| | |
|---------------------------------------|---|
| Alternative Control Services | A distribution service provided by Ergon Energy that the AER has classified as an Alternative Control Service under the NER. |
| Augmentation | Work to enlarge the distribution system or to increase its capacity to distribute electricity. |
| Australian Energy Regulator (AER) | The AER is an independent statutory authority that is part of the Australian Competition and Consumer Commission. The AER is responsible for the economic regulation of electricity networks in the National Electricity Market. It also monitors the wholesale electricity and gas markets and is responsible for compliance with and enforcement of the National Electricity Law and NER, and other regulatory instruments. |
| Basic connection | A connection service that meets the requirements for a Basic Connection Offer as set out in section 3 of the Connection Policy. |
| Capital Contribution | A capital contribution may be charged where a network extension, augmentation or connection assets are required for a new connection or alteration in accordance with this policy. |
| 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 either a retail customer; retailer or other proxy for a retail customer, or a real estate developer. |
| Connection application | An application made under clause 5A.D.3 of the NER |
| Connection assets | Those components of a transmission or distribution system which are used to provide connection services. Connection assets are those assets required to connect an electrical installation to the shared network and are all the assets from the connection point back up to and including the network coupling point. |
| 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, Part E of the NER. |
| 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. |
| Contestable | A service is contestable where it is permitted to be provided by more than one supplier on a competitive basis. |
| Customer | A person or entity that receives, or wants to receive a supply of electricity for a premises, or any other distribution service from Ergon Energy. |
| Distribution Network Service Provider | A person that owns, controls or operates a Distribution Network and the associated connection assets. Ergon Energy is a distribution network service provider. |

| | |
|--|--|
| Distribution system | The electrical system used to transport electricity from the high voltage transmission network connection point to distribution network users. |
| Distribution Use of System (DUOS) charge | Component of the network tariffs which covers costs associated with connection services and/or use of the distribution network for the conveyance of electricity (i.e. Standard Control Services). |
| Embedded generator (EG) | Means a network user classified as an EG in accordance with the definition in the Ergon Energy Pricing Proposal. It excludes those customers with micro generation as per Australian Standard AS 4777 (Grid connection of energy systems via inverters).. |
| Energy | The amount of electricity consumed by a consumer over a period of time. Energy is measured in terms of watt hours, such as kilowatt hours (kWh), megawatt hours (MWh) or gigawatt hours (GWh). |
| Extension | An augmentation that requires the connection of a power line or facility outside the present boundaries of the distribution network owned, controlled or operated Ergon Energy. |
| Final Distribution Determination | The AER's Final Distribution Determination sets the revenue and pricing control regime that Ergon Energy must comply with for the regulatory control period. |
| Micro EG connection | 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). |
| Micro embedded generator | A retail customer who operates, or proposes to operate, an embedded generating unit for which a micro EG connection is appropriate. |
| National Electricity Market | The interconnected electricity grid covering Queensland, New South Wales, Victoria, Tasmania, South Australia and the Australian Capital Territory. |
| National Electricity Rules | Rules made under the National Electricity Law which govern the operation of the National Electricity Market. |
| Negotiated connection | A connection that is not a basic connection. |
| New connection | A connection established or to be established, in accordance with Chapter 5A of the NER and applicable energy laws, where there is no existing connection. |
| Non-registered embedded generator | An embedded generator that is neither a micro embedded generator nor a Registered Participant. |
| Original customer | The connection applicant who triggered the requirement and paid for the construction of an extension asset. |
| Real estate developer | A person who carries out a real estate development. |
| Real estate development | The commercial development of land including its development in 1 or more of the following ways: (a) subdivision; (b) the construction of commercial or industrial premises (or both); (c) the construction of multiple new 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 NER (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 of the NER). However, as set out in clause 8.2.1(a1), for the purposes of some provisions of rule 8.2 of the NER only, AEMO, Connection Applicants, Metering Providers and Metering Data Providers who are not otherwise Registered Participants are also deemed to be Registered Participants. |
| Reimbursement scheme | A scheme to enable original customers to be refunded for their capital contributions where the network extension funded by the capital contribution is subsequently used by other customers. |

Customer Service

13 10 46
7.00am – 6.30pm, Monday to Friday

Faults Only

13 22 96
24 hours a day, 7 days a week

Life-Threatening Emergencies Only

Triple zero (000) or 13 16 70
24 hours a day, 7 days a week

Customer Advocate

PO Box 264 Fortitude Valley QLD 4006
customer.advocate@ergon.com.au

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ergon.com.au

