ActewAGL Distribution 2015/16 Network Pricing Proposal

Submission to the Australian Energy Regulator

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Overview

ActewAGL Distribution offers customers a range of network tariff options across three tariff classes—residential, commercial low voltage and high voltage. Customers are able to choose the tariff that best suits their needs, subject to some eligibility requirements as set out in this document.

The proposed tariffs and charges are set in accordance with the relevant requirements in the National Electricity Rules (Rules) and the AER's *Final Decision, ActewAGL distribution determination 2015-16 to 2018-19* (Final Decision). This determination sets the allowed change in average prices for ActewAGL Distribution's distribution network services (CPI minus the X factor of 18.76 per cent for 2015/16). The annual charges for existing metering services are being reduced by 15.7 per cent to the amounts that the AER has set in its Final Decision.

No changes are proposed to the types of network tariffs offered in 2015/16. However changes are proposed to the structure of metering charges that necessitate new tariffs.

Customers requesting new meters (for new connections or meter upgrades) from 1 July 2015 will be required to pay the full AER approved cost of the meter when it is installed. Customers who were connected before 1 July 2015 (and have not paid for their meter up-front) will pay an annual meter capital charge to contribute to the recovery of the cost of the existing meter asset base. The charges for ancillary services, including connection services, will change to ensure that the customers requesting the services will pay the full cost of providing the services.

The proposed distribution use of system (DUOS) charges for 2015/16 are 0.87 cents per kWh, or 16.2 per cent in nominal terms, lower on average than the DUOS charges for 2014/15. TUOS charges, levied on ActewAGL Distribution by TransGrid, are 0.01 cents per kWh, or 0.6 per cent in nominal terms, higher on average than the charges for 2014/15. The charges for jurisdictional schemes[1] are 0.01 cents per kWh, or 1.0 per cent in nominal terms, higher on average than the charges for 2014/15.

The proposed network use of system (NUOS) charges (comprising DUOS, TUOS charges for jurisdictional schemes and the capital component of metering) plus the non-capital component of metering for 2015/16 are, on average 1.05 c/kWh, or 11.9 per cent in nominal terms, lower than the average NUOS plus metering charges for 2014/15.

ActewAGL Distribution estimates that the proposed 2015/16 network and metering charges will lower the electricity network bill for an average residential customer, consuming 7000 kWh on the residential basic network charge, by $1.24 per week

[1] Jurisdictional schemes are expenses incurred by ActewAGL Distribution pursuant to ACT Government requirements, such as the feed-in tariff.

(including GST)—a real decrease of 11.0 per cent (8.8 per cent nominal). For a commercial customer consuming 30 MWh per annum on the general network charge, the proposed network and metering price decreases would lower the electricity network bill by $7.87 per week (including GST)— implying a 12.0 per cent real reduction in network prices (9.8 per cent nominal decrease).

1 Introduction

1.1 Purpose and scope of the document

ActewAGL Distribution has prepared this document in accordance with the requirements in Chapters 11 and 6 of the National Electricity Rules (the Rules).[2] It provides the required information on the tariffs and charges to apply to ActewAGL Distribution's regulated distribution services from 1 July 2015 to 30 June 2016. A checklist of the regulatory requirements and where they are met in this document is provided in Attachment 1.

The document contains tariffs and charges for ActewAGL Distribution's standard control services and alternative control services, as classified in the Australian Energy Regulator's (AER's) *Final Decision ActewAGL distribution determination 2015-16 to 2018-19* (Final Decision). ActewAGL Distribution's standard control services comprise distribution network use of system services. ActewAGL Distribution's alternative control services comprise the provision and servicing of type 5 and 6 meters and ancillary services.

Separate regulatory control mechanisms apply to standard control and alternative control services, so separate price schedules must be determined. The combined standard control (network) and metering prices are also provided in this document.

The retail component of the delivered price of electricity to consumers accounts for around 50 per cent of the total price. The retail provision of electricity in the ACT is fully open to competition, although there remains a regulated retail tariff offer, set through a separate retail regulatory process, for customers consuming less than 100 MWh per year.

As well as setting out the proposed network tariffs and charges and demonstrating compliance with the relevant Rules and the Final Decision, the pricing proposal includes explanations of the basis for the current tariff structure and the tariff setting process. While this information is not required under the pricing provisions in the Rules, ActewAGL Distribution believes that transparency and promoting consumer awareness are important, and the annual network pricing proposal provides a useful vehicle for achieving this.

1.2 Background

The AER is responsible for the economic regulation of distribution services provided by ActewAGL Distribution. The AER has determined the average annual smoothed revenue (AAR) for ActewAGL Distribution's standard control services and the price caps for alternative control services (ancillary network services and metering services) for 2015/16.[3] The AER has set the X factor in the CPI – X average revenue cap for standard control services for 2015/16 at 18.76 per cent.[4] Annual charges for metering services will decrease 15.7 per cent.

[2] Under rule 11.73.1(b), the new chapter 6 pricing rules do not apply to ActewAGL Distribution until 1 July 2017. All references to Chapter 6 refer to the old Chapter 6.
[3] AER 2015, *Final Decision*
[4] AER 2015, *Final Decision*

The AER has determined that annual metering charges be split into two components:

- a capital component that will be applied to customers who were connected at 30 June 2015; and
- a non-capital component that will apply to customers connected at 30 June 2015 and also to those with new connections from 1 July 2015 that have paid for their meters.

Prices for ancillary services (including connection services) will change to align the prices with the costs of providing those services.

This document should be read in conjunction with the AER's Final Decision and ActewAGL Distribution's regulatory proposals (published on the AER's website), as they set out in detail the basis of the costs that are reflected in ActewAGL Distribution's proposed tariffs and charges.

In November 2014 the AEMC published its final determination on amendments to the distribution network pricing rules.[5] The new rules require ActewAGL Distribution to submit its first Tariff Structure Statement (TSS) to the AER for approval in November 2015. The first set of tariffs developed in accordance with the new chapter 6 pricing principles will apply from 1 July 2017. During 2015/16 ActewAGL Distribution will be engaging with consumers, via its Energy Consumer Reference Council and other forums, on future tariff structures.

1.3 Structure of the document

ActewAGL Distribution's tariff structure for standard control services is set out in chapter 2. The chapter includes details on the components and rationale for each tariff, an outline of ActewAGL Distribution's pricing strategy and how it relates to the pricing principles in the Rules, and an explanation of the price setting process—that is, the process of moving from the regulated average annual revenue requirement and a set of high level pricing principles to a full schedule of tariffs and charges for 2015/16.

The proposed network tariffs and charges for ActewAGL Distribution's standard control services for 2015/16 are presented in chapter 3. The chapter includes discussion of the changes relative to 2014/15.

The structure and basis of ActewAGL Distribution's charges for alternative control (ancillary network services and metering) services, the proposed charges for 2015/16 and the changes relative to 2014/15 are presented and explained in chapter 4.

Indicative estimates of the likely impacts of the price changes on average customer electricity bills are provided in chapter 5, together with a statement about the review of tariffs.

[5] AEMC 2014, *National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014, Final Determination*, November

2 The structure and basis of ActewAGL Distribution's network tariffs

The Rules (clause 6.18.2) require a description of the tariff classes[6] and tariffs that are to apply in 2015/16. For each tariff within a tariff class, the charging parameters[7] and the elements of service to which they relate must also be set out in the pricing proposal.

2.1 Network tariff structure

ActewAGL Distribution offers network tariffs in three tariff classes:

- Residential;
- Commercial low voltage (LV); and
- High voltage (HV).

The Rules stipulate that tariff classes must be constituted with regard to the need to group customers together on an economically efficient basis and the need to avoid unnecessary transactions costs (clause 6.18.3(d)). ActewAGL Distribution meets this requirement by grouping customers according to type of connection (residential or commercial), and connection voltage (LV or HV). Customers within each class have similar load and connection characteristics. The relevant costs for each class can then be identified and reflected in the tariffs for each class.

Within each of these three tariff classes, ActewAGL Distribution has developed a suite of network tariffs that effectively meet the diverse needs of its customer base, encourage efficient use of the network and signal the costs of future network expansion. Residential customers are offered a choice of four network tariff options plus two controlled load off-peak options and an embedded renewable generation tariff option. Commercial LV customers are offered four main tariff options. Commercial customers on the general network charge also have access to the controlled load off-peak tariff options and the embedded renewable generation tariff option on a similar basis to customers in the residential class. New low voltage residential and commercial customers will have access to the same network tariffs but with a slightly lower fixed charge because they will pay up-front for the cost of their meters. Commercial HV customers are offered four tariff options. Customers are able to choose the option which best suits their needs, subject to the eligibility criteria set out in Tables 2.1 to 2.3 below.

The network tariffs comprise different combinations of the following charging parameters:

- Network access charges—these apply per customer for residential consumers and per connection point for commercial customers. They involve a fixed daily charge and do not vary with electricity consumption or capacity;

[6] A tariff class is defined in chapter 10 of the *National Electricity Rules* as "a class of customers for one or more direct control services who are subject to a particular tariff or particular tariffs".
[7] Charging parameters are defined as "the constituent elements of a tariff" in chapter 10 of the *National Electricity Rules*.

- Energy charges—these apply to each unit of electricity consumed. The c/kWh rate may vary with the level of consumption (with higher rates applying above certain thresholds) or with the time-of-use (with lower rates applying at off-peak periods);
- Maximum demand charges—these apply per connection point for some commercial tariffs. They involve a charge per unit of maximum demand (in c/kVA/day). The maximum demand is the highest demand calculated over a 30-minute interval during the billing period;
- Capacity charges—these apply on the same basis as maximum demand charges, but are for the maximum demand calculated over a 30-minute interval during the previous 12 months.

Network access charges relate to the connection services provided to customers. They are based upon the cost of constructing and maintaining connection assets as well as servicing customers for each tariff class, including customer related costs such as network call centre costs.

Energy charges relate to the distribution services provided to customers. They are linked to the cost of constructing, maintaining and servicing distribution assets (other than connection assets), and also recover most of the common services costs. Higher energy rates at peak periods reflect higher costs of providing capacity for these peak times. Higher energy rates beyond 330 kWh per day for the general network charge encourage larger consumers with a good load factor to move to demand or time-of-use network charges.

Maximum demand and capacity charges are based upon the cost of providing capacity to meet the consumers' maximum demand and are intended to provide incentives for consumers to manage their load on the network.

The allocation of costs to charging parameters is discussed further in section 2.4 below.

The tariffs and charging parameters for each tariff class are shown in the following tables (2.1 to 2.3). The tables include an explanation of the purpose of each tariff and the customers to which each tariff may apply.

2.1.1 Network tariffs for residential customers

ActewAGL Distribution's residential network tariff structure is shown in Table 2-1.

The *Residential time-of-use (TOU), Residential 5000* and *Residential with heat pump* tariffs are refinements of the *Residential basic* tariff to reflect customer load profiles.

The *Residential TOU* tariff provides an opportunity and an incentive for customers with the necessary metering capability to respond to price signals at different times of the day, where reflected in the final price of their retailer, and manage their electricity bill in line with the costs they impose on the network. The Residential TOU tariff is the default tariff for all new residential and commercial connections.

The *Residential 5000* and *Residential with heat pump* tariffs involve a higher connection charge and an inclining block structure with a higher energy charge (cents per kWh) applying above certain thresholds. These tariffs more accurately tailor costs to the load profile of these

customers. The off-peak tariff options can be used in conjunction with the *Residential basic* and the *Residential TOU* network charges.

Table 2-1 Network tariff structure – residential

Tariff	*Charging parameters*	*Explanation*
Residential basic network	Network access charge (c/day/customer) Energy charge (c/kWh)	The residential basic network tariff is available to installations at private dwellings, excluding serviced apartments, but including: • Living quarters for members and staff of religious orders; • Living quarters on farms; • Charitable homes; • Retirement villages; • Residential sections of nursing homes and hospitals; • Churches, buildings or premises which are primarily used for public worship; and • Approved caravan sites. The energy charge varies neither with the level of consumption nor the time of day. However, customers on this tariff are also eligible for the off-peak tariffs.
Residential time-of-use (TOU) network[8]	Network access charge (c/day/customer) Energy at max times, ie 7am to 9am and 5pm to 8pm every day (c/kWh) Energy at mid times, ie 9am to 5pm and 8pm to 10pm every day (c/kWh) Energy at economy times, ie all other times (c/kWh)	This tariff is available to residential customers (as defined above) and to electric vehicle recharge facilities on residential premises with a meter able to be read as a time-of-use meter. The energy charges relate to the supply of network services at various times. Higher rates apply at max or peak times to encourage users to shift their load to off-peak periods. Customers on this tariff are also eligible for the controlled load off-peak tariffs. Residential consumers with a meter with two registers capable of providing time-of-use consumption data from each register may have the time-of-use charges applied separately to each register.
Residential 5000 network	Network access charge (c/day/customer) Energy for the first 60 kWh/day (c/kWh) Energy above 60 kWh/day (c/kWh)	This tariff is designed for residential customers who have large continuous (rather than time controlled) loads, such as electric hot water systems, and consume over 5,000 kWh per annum. The energy charges relate to the supply of network services above and below certain volume thresholds. An inclining block structure applies (ie higher energy rates for the second block of energy). The lower energy rate is limited to consumption up to 60 kWh per day, reflecting a typical domestic usage profile. This is sufficient to cover the energy requirements of many residential consumers.
Residential with heat pump	Network access charge (c/day/customer) Energy for the first 165 kWh/day (c/kWh) Energy above 165 kWh (c/kWh)	This tariff is only available to residential customers with a reverse cycle air conditioner. An inclining block structure applies (ie higher energy rates for the second block of energy). The lower energy rate is set to recover the incremental cost of energy load on the network as a demand management tool to lower winter peak loads and improve utilisation of the network in summer and so improve overall network utilisation.
Off-peak (1) night	Energy at controlled times, ie between 10	The off-peak (1) night charge is available only to customers utilising a controlled load element, and taking all other energy

[8] All times for metering are Eastern Standard Time.

Tariff	*Charging parameters*	*Explanation*
network	pm and 7 am (c/kWh)	at residential basic network, residential time-off-use or general network rates. The off-peak (1) night charge is applicable to permanent heat (or cold) storage; electric vehicle recharge; and CNG vehicle gas compression installations. The design and rating must be acceptable to ActewAGL. The installation must use most energy during the controlled times but may be boosted at the principal charge, or charges, at other times. The off-peak (1) night network energy charge relates to supply of network services at controlled times, for 6 to 8 hours per day between the hours of 10 pm and 7 am.
Off-peak (3) day and night network	Energy at controlled times, ie between 10 pm and 7 am and 9 am and 5 pm (c/kWh)	Available only to customers utilising a controlled load element, and taking all other energy at residential basic network, residential time-off-use or general network rates. This charge is applicable to permanent heat (or cold) storage installations. The design and rating must be acceptable to ActewAGL. The off-peak (3) day and night network energy rate applies to power supplied for up to 13 hours per day between 10 pm and 7 am and again between 9 am and 5 pm.
Renewable generation	Energy charges (c/kWh)	This tariff applies to customers with grid connected solar or wind energy generation systems. Different arrangements apply to customers participating in the ACT feed-in tariff scheme, in accordance with the *Electricity Feed-in (Renewable Energy Premium) Act 2008* (ACT). Net metering applies to new PV customers since July 2013.

For each of the tariffs shown in this table (other than off-peak and renewable energy) two separate codes will apply – one which includes a meter capital charge and one which excludes the meter capital charge (XMC). The basis for the separate meter capital charges is explained in section 4.2 below.

2.1.2 Network tariffs for low voltage commercial customers

ActewAGL Distribution sets different tariffs for commercial low voltage (LV) and high voltage (HV) customers recognising the different costs associated with supplying each group. Within the commercial LV tariff class a range of tariff options has been developed to meet the diverse needs of commercial customers and to accommodate their differing load profiles and ability to respond to price signals. Of the four main options offered to commercial LV customers, all but the *General network* tariff involve time-of-use charges. The *General network* tariff does, however, involve an inclining block tariff structure with higher energy charges (c/kWh) applying above certain thresholds. Also, the off-peak (controlled load) tariffs are available to customers on the *General network* tariff.

Two of the commercial LV options involve capacity and/or maximum demand charges, in conjunction with time-of-use charges. Customers able to improve their load factor[9] have an incentive to choose a tariff with a demand or capacity charge, and reduce their energy bills. Customers on the *General network* and *General time-of-use network* charges have the option of moving to the demand tariffs and they could lower their network costs if they have a sufficiently large load (for the network cost savings to offset the higher cost of interval

[9] The load factor is the ratio of average load to the maximum demand (peak load).

metering) and if their load factor is suitable (to ensure that the demand costs do not offset the lower energy charges).

Table 2-2 Network tariff structure - commercial low voltage

Tariff	*Charging parameters*	*Explanation*
General network	Network access charge (c/day/customer) Energy for the first 330 kWh/day (c/kWh) Energy above 330 kWh/day (c/kWh)	This tariff is available to all customers. The tariff is most suitable for small commercial consumers operating in regular business hours or larger customers with poorer load factors (peaky loads). This tariff may be used in conjunction with the off-peak tariffs.
General TOU network	Network access charge (c/day/customer) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This tariff is particularly suitable for small commercial customers with discretionary or relatively large off-peak loads such as bakers, freezer installations, irrigators and to customers operating on week-ends. The energy charges relate to supply of network services at different times.
LV TOU kVA demand network	Network access charge (c/day/connection point). Maximum demand (in billing period) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This tariff is appropriate for customers with an average or stable commercial load. The maximum demand charge is designed to encourage consumers to manage their demand upon the network. The energy charges relate to supply of energy at different times, with lower rates in off-peak times reflecting the availability of capacity and encouraging consumers to shift their load from peak to off-peak times to utilise the available capacity. It is not available to customers with an embedded generation (other than micro generation) system.
LV TOU capacity network	Network access charge (c/day/connection point) Maximum demand (in billing period) (c/kVA/day) Capacity (max demand in last year) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This tariff is open to all low voltage consumers and intended to reward those customers with seasonally stable loads. It is prescribed for low voltage customers with embedded generation. The tariff provides an incentive for customers with embedded generation to manage their output and their down-times (eg for servicing) so as to minimise their demand on the network.
Streetlighting	Network access charge (c/day/customer) Energy at any time (c/kWh)	This tariff applies to the night-time lighting of streets and public ways and places.
Small unmetered loads	Network access charge (c/day/customer) Energy at any time (c/kWh)	This tariff applies to eligible installations as determined by ActewAGL, including: • telephone boxes • telecommunication devices • other, as determined by the National Metrology Coordinator. Energy charges are calculated based on the assessed rating of the load and the charge period.

* Business times are between 7 am and 5 pm Eastern Standard Time on weekdays. Evening times are between 5 pm and 10 pm Eastern Standard Time on weekdays. Off-peak times are all other times.

For each of the tariffs shown in this table (except small unmetered loads), two separate codes will apply – one which includes a meter capital charge and one which excludes the meter

capital charge (XMC). The basis for the separate meter capital charges is explained in section 4.2 below.

2.1.3 Network tariffs for high voltage customers

To qualify for the high voltage demand network charges, consumers must take their energy at high voltage (nominal voltage not less than 11 kV) and make a capital contribution towards their connection assets and transformers. High voltage consumers have the option of owning and operating their own high voltage assets. Some customers have aggregated their load, incorporating part of ActewAGL Distribution's low voltage network to become a high voltage customer. A separate high voltage network charge is available for such customers.

Customers taking their energy at high voltage also have the option of selecting the network tariffs available to low voltage consumers. For example, a high voltage customer with a poor load factor may select the *General* or the *General time-of-use* network charge.

Table 2-3 Network tariff structure - high voltage

Tariff (code)	*Charging parameters*	*Explanation*
HV TOU Demand Network (111)	Network access charge (c/day/connection point) Max demand (in billing period) (c/kVA/day) Capacity (max demand in past year) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This tariff is appropriate for large customers taking supply at high voltage with a low voltage network owned and maintained by ActewAGL. The energy charges relate to supply of network services at different times, with lower rates in off-peak times encouraging customers to increase their utilisation of the network in off-peak periods. The demand charge is applied to the maximum demand in the billing period while the capacity charge is applied to the maximum demand in the previous 12 months. The capacity charge encourages consumers to monitor and manage their peak demand over the year while the demand charge continues to encourage consumers to manage their demand requirements each month.
HV TOU Demand Network – Customer HV (112)	Network access charge (c/day/connection point) Max demand (in billing period) (c/kVA/day) Capacity (max demand in past year) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This tariff is appropriate for large customers taking supply at high voltage with a low voltage network owned and maintained by ActewAGL, where the customer owns and is responsible for their high voltage assets (including transformers and switch gear).
HV TOU Demand Network – Customer LV (121)	Network access charge (c/day/connection point) Max demand (in billing period) (c/kVA/day) Capacity (max demand in past year) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This network charge is appropriate for large customers taking supply at high voltage where the customer owns and is fully responsible for their own low voltage network. The network access charge relates to the connection services provided to the customer including provision of the current transformer necessary to meter these large loads. The capacity charge encourages the consumer to monitor and manage their peak demand over the year while the demand charge continues to encourage consumers to manage their capacity requirements each month. The energy charges relate to supply of network services at different times, with lower rates in off-peak times reflecting the relatively low costs of off-peak supply, and thereby providing incentives for customers to switch their utilisation of the network to off-peak periods.
HV TOU Demand Network – Customer HV and LV (122)	Network access charge (c/day/connection point) Max demand (in billing period) (c/kVA/day) Capacity (max demand in past year) (c/kVA/day) Energy at business times* (c/kWh) Energy at evening times (c/kWh) Energy at off-peak times (c/kWh)	This network charge is appropriate for large customers taking supply at high voltage where the customer owns and is fully responsible for their own low voltage network and where the customer owns and is responsible for their high voltage assets (including transformers and switch gear).

* Business times are between 7 am and 5 pm Eastern Standard Time on weekdays. Evening times are between 5 pm and 10 pm Eastern Standard Time on weekdays. Off-peak times are all other times.

2.1.4 Ancillary network charges

In addition to the network tariffs set out above, ActewAGL Distribution offers a range of ancillary network services. The structure of each ancillary service charge depends on the type of service. Some services are charged on a per visit basis, others per installation or per test. The charges for ancillary network services are set on a cost reflective basis, in accordance with the AER's Final Decision. For example, separate rates apply for temporary connections depending on whether they relate to an overhead or underground connection, as these will involve different costs. Ancillary network services and metering services charges are discussed in chapter 4.

2.2 Pricing strategy

ActewAGL Distribution has developed and refined its network tariff structure over time, guided by its pricing strategy. The strategy involves:

- Setting prices to signal to customers the economic costs of providing distribution services;
- Providing customers with a choice of flexible and innovative tariffs to best meet their needs;
- Providing incentives and opportunities for demand management;
- Ensuring that tariffs are set to recover costs in a way that encourages efficient use of the network and signals to customers the cost of network expansion; and,
- Offering customers a clear and simple tariff structure, noting the need to take account of the ability of different customer groups to respond to price signals and the need to keep transactions costs low.

ActewAGL Distribution's pricing strategy has in recent years accommodated the development of some innovative tariffs and significant customer responses. For example, in line with the strategies of setting cost reflective prices and providing opportunities and incentives for demand management, ActewAGL Distribution has gradually introduced several time-of-use charging options for both commercial and residential customers. Approximately 55 per cent of the total load in the ACT is now subject to time-of-use or controlled load (off-peak) charges. For the non-residential sector, approximately 82 per cent of the load is on time-of-use or controlled load tariffs.

In October 2010, time-of-use tariffs became the default tariff for all new residential and commercial premises, with the option to select an alternative tariff. More than 22,000 residential customers are now on the residential time-of-use tariff. Also, nearly 2,000 non-residential customers have moved to the general time-of-use or the low voltage demand tariff, an increase of more than 100 per cent since the new default tariff arrangements were put in place.

The application of maximum demand and capacity charges in several commercial tariff options has further strengthened price signals to customers, providing incentives to use the network more efficiently and resulting in significant customer responses. The maximum demand

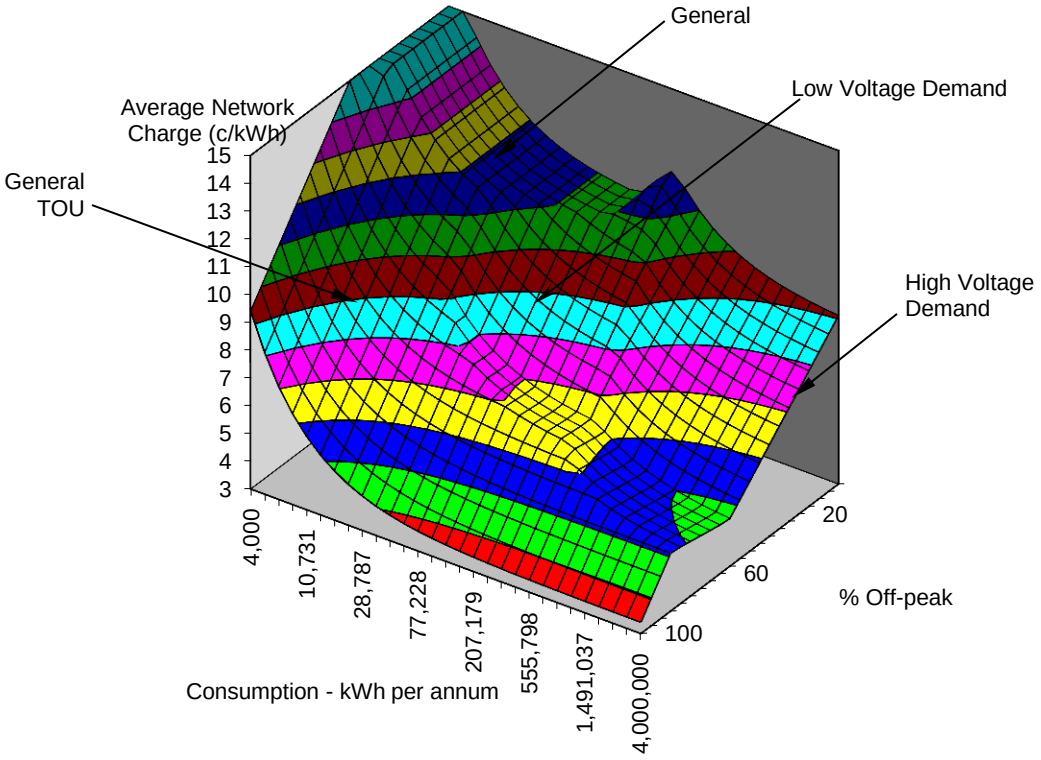
charges signal to customers the relatively high cost of providing capacity to meet demand and provide incentives to customers to improve both their load factor (that is, spread their load more evenly) and power factor (which allows the existing network to deliver more energy). Between 1999/00 and 2013/14, customers on the *Low voltage demand* network tariff improved their load factor and, therefore, their utilisation of the network by 12.3 per cent, increasing the average energy consumed relative to the average of their monthly maximum demand from 40.1 per cent to 45.1 per cent. Over the same period, high voltage customers increased their load factor, and therefore their utilisation of the network, from 54.2 per cent to 59.4 per cent, an improvement of 9.6 per cent.

These price signals have been effective demand management tools and have allowed ActewAGL Distribution to keep network augmentation costs to a minimum.

The options available for commercial customers and the incentives created are represented in Figure 2.1 which shows the main network tariffs available to commercial customers, including time-of-use and demand tariffs. Sophisticated modelling ensures that the tariffs are synchronised and that the costs of supplying particular loads are recovered in prices. ActewAGL Distribution is able to offer a suite of commercial tariffs and be indifferent to customers' choices between them.

The following graph plots the average minimum network charges over a range of consumption levels and a range of consumption profiles from all *peak time* (business and evening) to all *off-peak* for commercial customers. It shows how the *General network* charge suits small commercial customers with relatively large peak time loads, while those with high off-peak loads can be rewarded by selecting the *General time-of-use network* tariff. The graph also demonstrates how the low voltage and high voltage demand tariffs align with the non-demand tariffs. Larger customers with good load profiles are able to choose a demand based tariff option and reduce overall network supply costs and their average network charges.

Figure 2.1 Average network charges for commercial customers



2.3 Consistency with the pricing principles in the Rules

The Rules include pricing principles to be applied when setting tariffs (clause 6.18.5). These principles recognise the complexities which arise in electricity network pricing because of the nature of electricity distribution costs—in particular the large fixed costs associated with providing capacity to meet peak demand, the high degree of shared or joint costs, and costs which vary according to the time of day and season and voltage of supply. There is no unique set of efficient and equitable prices, but rather a range within which prices should fall, taking account of the need to raise sufficient revenue to cover costs, the need to signal to customers the costs of expanding capacity to meet future demand, and the need to take account of the scope for customers to respond to price signals, bearing in mind the administrative and technical costs of doing so.

Clause 6.18.5(a) of the Rules requires that for each tariff class the revenue must lie between an upper bound of the stand-alone costs and a lower bound of avoidable cost. The stand alone cost for any group of customers is the cost that would be incurred if only that customer group were supplied. Any costs that would otherwise be shared with other customer groups would have to be fully attributed to the stand alone customers. The stand alone cost is

effectively the cost of replicating or bypassing the infrastructure.[10] The avoidable cost for any group of customers is the cost that would be avoided if the group of customers were removed from the network.

The purpose of the stand-alone and avoidable cost test is to ensure that there are no cross subsidies between tariff classes. Compliance with the test discourages inefficient bypass of the network (which may occur if prices are above the stand alone cost).[11] If any tariff class, or group of customers, is paying less than the avoidable cost lower bound—the costs that arise directly from its use of the network—then it is receiving an economic subsidy. If any tariff class is paying more than the stand alone cost upper bound—the cost if it alone were supplied—then it is subsidising other users. If the revenues from each group lie between the bounds of avoidable cost and stand alone cost then each group is making a contribution to covering the joint or shared costs of supply, while no group is receiving or paying an economic subsidy.

Clause 6.18.5(b) of the Rules says that each tariff and charging parameter must take account of the long run marginal cost of the service (or element of the service) to which it relates, while also taking account of transactions costs and whether customers are able or likely to respond to price signals. The purpose of the long run marginal cost requirement is to ensure that prices signal to customers the forward-looking costs of meeting additional demand or the savings from reduced demand.

Clause 6.18.5(c) of the Rules says that if, as a result of the operation of clause 16.18.5(b), expected revenue may not be covered, tariffs must be adjusted in a way that results in minimum distortion to efficient patterns of consumption.

ActewAGL Distribution's pricing strategy is consistent with each of the pricing principles in clause 6.18.5 of the Rules. As far as possible, costs are allocated to the customer group or groups which are directly responsible for the costs. For example, the costs associated with providing low voltage connection assets are directly attributed to low voltage customers, but not high voltage customers. As a result, the revenue from each tariff class recovers at least the avoidable cost (or directly attributed cost) associated with providing the service to that class. Where additional costs must be recovered, each class pays a share, but none pays more than its stand alone cost. In this way, the requirement of providing subsidy-free prices is met. This is demonstrated in section 2.3.1 below, where revenue from each tariff class is shown to lie between the relevant bounds of avoidable and stand-alone costs.

The principle of signalling to users the long run marginal cost is also taken into account in ActewAGL Distribution's approach to pricing. The long run marginal cost is the additional cost of meeting additional future demand. It includes the capital costs associated with any increment in capacity required to meet the additional demand, as well as the additional operating and maintenance costs. ActewAGL Distribution's pricing model uses the method of intercepts to allocate demand related costs. The demand related costs are allocated to consumers based on long run marginal cost with the last unit of capacity costing 30 per cent of the first unit of capacity. This reflects the marginal cost of providing additional capacity during the construction phase of the network.

[10] NERA 2006, *Distribution Pricing Rule Framework*, *Report prepared for the Network Policy Working Group of the Standing Committee of Officials (SCO) of the Ministerial Council on Energy (MCE),* December, p. 22
[11] NERA 2006, *Distribution Pricing Rule Framework*, December, p. 22

ActewAGL Distribution's capacity and maximum demand charges provide signals to commercial customers about the cost of providing capacity and, therefore, encourage these users to manage their maximum demands. The *General time-of-use* tariff does not incorporate a demand charge, but it does signal to customers the relatively high cost of providing capacity at peak times.

While residential tariffs do not have capacity or maximum demand charges, a TOU tariff is available and off-peak tariff options can be combined with other tariffs (including the *Residential basic* tariff). The higher energy rates at peak periods signal to customers the cost of augmenting capacity and, therefore, encourage consumers to shift their load to off-peak periods. The residential time-of-use tariff is the default tariff for new residential consumers.

When setting tariffs to ensure that all costs are recovered, ActewAGL Distribution also aims to minimise the distortion to efficient patterns of consumption. This influences the balance between the network access charges (which do not vary with the level of consumption) and the energy charges (which vary with the level of consumption and therefore more directly influence consumption patterns). For example, ActewAGL Distribution seeks to minimise the fixed charges in the *General time-of-use* and the *Low voltage demand* tariffs to ensure that small customers are not inefficiently discouraged from adopting the tariffs with time-of-use and demand price signals. Also, for residential customers, ActewAGL Distribution has kept the fixed charge (including daily metering charge) for the *Residential time-of-use* charge the same as that for the *Basic residential* charge to ensure there is not an inefficient barrier to customers seeking to move to a tariff that provides time-of-use price signals.

The practical application of these strategies and principles in the price setting process is described in section 2.4 below.

In addition to these tariff measures, ActewAGL Distribution applies charges to developers for new connections to signal the marginal cost of providing access to the network as well as charges for augmenting upstream capacity for new developments. These charges are set in accordance with ActewAGL Distribution's *Connection Policy 2015-19*, approved by the AER in the Final Decision.[12]

2.3.1 Calculating avoidable, stand alone and long run marginal costs

ActewAGL Distribution engaged economic consultants NERA in 2009 to advise on the application of the pricing principles and to provide estimates of avoidable costs, stand alone costs and long run marginal costs. NERA undertook a detailed analysis of the available methods and developed and implemented a recommended approach to calculating avoidable, stand alone and long run marginal costs.

ActewAGL Distribution has used NERA's estimates of avoidable cost for 2009/10 for each tariff class escalated in line with the increase in revenue for each customer class. These costs have been used to calculate the stand alone costs for each tariff class using NERA's methodology. The results for avoidable and stand-alone costs are shown in Table 2.4. The table also shows that average 2015/16 DUOS revenue for each tariff class lies within the lower

[12] AER 2015, Final Decision Attachment 18 (p18-7)

bound of avoidable cost and the upper bound of stand alone costs. The tariffs therefore comply with the requirement in clause 6.18.5(a) of the Rules.

Table 2-4 Avoidable and stand alone costs 2015/16 ($'000)

Tariff class	*Avoidable cost ('000)*	*DUOS charges ('000)*	*Stand alone cost ('000)*
Residential	$7,792	$50,700	$127,574
Commercial low voltage	$968	$69,449	$120,750
High voltage	$35	$8,429	$119,817
Total		$128,578	

NERA's analysis of long run marginal costs highlights a range of practical and theoretical issues that need to be addressed in the calculation and interpretation of long run marginal cost, particularly where the distribution network may not be in a 'steady-state'.[13] ActewAGL Distribution considers that these matters should be carefully examined in the context of the AER's development of guidelines for the calculation of stand-alone, avoidable and long run marginal costs (in accordance with clause 6.2.8 of the Rules).

Following a detailed review of available methods and methods used in practice, NERA developed for ActewAGL Distribution a long run marginal cost model based on the average incremental cost (AIC) approach. Recognising that the long run marginal cost of network expansion varies depending on the network type (that is, voltage level), NERA estimated the long run marginal cost for each network type then translated this into a cost estimate for each customer class on the basis of the contribution of each class to demand at times of network peak demand.[14]

NERA's estimates of long run marginal cost by network level, on a $/kVA per year basis, are shown in Table 2.5. The estimates are expressed separately for each network level, with the low voltage estimate broken down to reflect the long run marginal cost of network assets used by low voltage commercial customers, those used by low voltage residential customers and shared low voltage assets.

Table 2-5 Long run marginal costs per network level ($/kVA pa)

Network level	*Long run marginal cost $/kVA pa ($2014/15)*
Low voltage residential	264.66
Low voltage commercial	32.88
Low voltage shared	5.24
High voltage	125.84

[13] For example, while the Turvey approach is generally considered to have the stronger theoretical basis, the Average Incremental Cost (AIC) method is more widely used as it is easier to apply. However, the AIC method has important shortcomings in that it is based on average capital costs associated with an increment in demand, not marginal, and the results are also sensitive to the demand forecasts used and the time frame for the analysis.

[14] NERA 2010, *Analysis of ActewAGL's Electricity Distribution Services Costs, A report for ActewAGL*, commercial-in-confidence, April, p. 11

NERA's estimates of long run marginal cost for each tariff class are shown in Table 2-6. These long run marginal cost estimates represent the costs of meeting an additional kVA of demand for each of the three tariff classes:

- For a customer located in the HV network, the long run marginal cost reflects the cost of augmenting the high voltage network, in order to meet that additional demand;
- For a low voltage commercial customer, the long run marginal cost reflects the cost of augmenting those areas of the low voltage network used exclusively by those customers, plus the costs of augmenting those areas of the low voltage network which are shared between low voltage commercial and residential customers and plus the costs of augmenting the high voltage network;
- Similarly, the long run marginal cost of meeting an increase in residential customer demand reflects the costs of augmenting those areas of the network used exclusively by residential customers plus those parts of the low voltage network which are shared between low voltage commercial and residential customers and plus the costs of augmenting the high voltage network.

As a result of applying this method of allocating costs, the long run marginal cost estimates for the low voltage customer classes are above the long run marginal cost estimates for the high voltage customer class.

Table 2-6 Long run marginal costs by tariff class ($/kVA pa)

Tariff class	*Long run marginal cost $/kVA pa ($2014/15)*
Residential	405.50
Commercial low voltage	173.72
High voltage	125.84

ActewAGL Distribution notes that the long run marginal cost estimates are significantly influenced by a number of data limitations as well as features of the ACT demand and expenditure profiles in the 2009-14 regulatory period (when the calculations were first made). These features reflect ActewAGL Distribution's stage in the investment cycle—that the distribution network is not in a steady-state—and the lumpy nature of network investment. Care must therefore be taken when interpreting the results and drawing implications for tariff design.

For example, some of the expected future increase in electricity demand is associated with extensions of ActewAGL Distribution's existing distribution network to new residential sub-divisions. NERA explains that, conceptually, the capital expenditure associated with extending the current network to meet additional demand in new areas can be distinguished from the capital expenditure associated with meeting increments in demand on the existing network. It is the latter which should be reflected in the estimate of long run marginal cost, as this provides the relevant behavioural signal to consumers. However in practice it is difficult to isolate incremental demand in existing network areas from demand forecasts for ActewAGL Distribution's overall network. As a result NERA calculated the long run marginal cost on the

basis of total additional demand and total capital augmentation, including extension of the network to provide access to the network in new areas.[15]

The unique circumstances in the 2009-14 regulatory period, involving a significant increase in ActewAGL Distribution's forecast total capital extension costs, together with very low forecast growth rates for residential demand, (attributable to the declining average residential consumption) result in proportionately higher estimates of long run marginal cost for residential customers. For these reasons, and consistent with the obligation to take long run marginal cost into account, the marginal cost estimate must be carefully interpreted and refined to reflect actual capacity availability in existing residential areas, otherwise it would inadvertently provide a signal to existing customers that there were capacity constraints when the existing residential network has sufficient capacity to meet demand.

ActewAGL Distribution is reviewing and updating its modelling of long run marginal costs as part of its preparation of the initial TSS, to apply from 1 July 2017.

2.4 The price setting process

The process of moving from the average annual revenue requirement (AARR) as set by the AER to a set of network tariffs involves the following steps:

1. Determine the maximum revenue to be recovered through distribution use of system (DUOS) charges, in accordance with the AER's Final Decision, as described in section 2.4.1 below.
2. Allocate the total revenue requirement to cost pools, taking account of the cost drivers (for example, whether the costs are demand related or customer related) and the type of assets involved (high voltage or low voltage). This cost allocation process is described in section 2.4.2 below.
3. Allocate the costs to tariff classes via a combination of network access charges, energy charges, demand charges and capacity charges. Costs are allocated according to the type of connection (residential, commercial, LV or HV) and the load profile. This process of setting the distribution use of system (DUOS) charges for each tariff class is described in section 2.4.3 below.
4. Allocate transmission use of system (TUOS) and jurisdictional scheme (JS) charges to tariff classes. These together with the metering capital (MC) charge determined in the AER's Final Decision are combined to form the total network charges (DUOS + TUOS + JS+MC) to apply for each tariff class. The process of allocating TUOS charges and jurisdictional scheme costs is described in section 2.4.4 below. Section 4.2 explains why the metering capital charge has been included in the network charge.

2.4.1 Revenue to be recovered through DUOS charges

In accordance with the AER's Final Decision, the average annual smoothed revenue for 2015/16 (in c/kWh) is converted to a total smoothed revenue for 2015/16 by multiplying it by

[15] NERA 2010, *Analysis of ActewAGL's Electricity Distribution Services Costs, A report for ActewAGL*, commercial-in-confidence, April, p. 20

the 2013/14 throughput (in kWh). Approved cost pass-throughs (positive or negative) are then added to this total smoothed revenue. The resulting value is the total annual revenue requirement to be recovered through the 2015/16 DUOS charges when they are applied to the 2013/14 customer numbers and throughput profile for each tariff.

The relevant values for each of these components and the calculation of the DOUS cap for 2015/16 are provided in chapter 3 of this document.

2.4.2 Allocation to cost pools

The total amount to be recovered in 2015/16 is allocated to three cost pools:

- Connection service costs
- Demand related service costs
- Common services costs

The main component of *connection service costs* is the cost of providing connection services to customers—that is, the cost associated with service mains (the wires that connect the customer's premises to the network).[16] The cost pool also includes other costs that are related to the number of customers or connections, for example network call centre costs.

The connection service costs are allocated across tariff classes using the proportion of connections in each tariff class relative to the total number of connections. The customer numbers are weighted according to the relative average cost of each type of customer to ActewAGL Distribution.

The main components of *demand related service costs* are the costs of reticulation and providing capacity. The split between HV and LV costs is important as it ensures that LV and HV customers are each allocated the appropriate costs—for example, HV customers without any ActewAGL Distribution LV reticulation are not required to pay for low voltage mains reticulation. This cost pool includes some shared costs which are demand-related, or related to the size of the network (for example, training and apprenticeships costs), but which cannot be attributed to certain voltages.

The demand related service costs are allocated across tariff classes on a cost reflective basis using energy consumed at different parts of the load cycle (business, evening and off-peak times) based on the method of intercepts.

Common services costs are shared across all users on the basis of energy consumption.

2.4.3 Allocating costs to tariff charging parameters

The cost of connection services and other customer related costs are generally recovered through the network access charges. Demand related service costs are recovered through the energy, maximum demand and capacity charging parameters for those commercial tariffs where these components apply. Costs for common services are recovered in energy charges.

The allocation from cost pools to charging parameters is summarised in Table 2-7.

[16] Metering assets and costs are regulated separately under the alternative control services control mechanism.

Table 2-7 Allocating service costs to tariff charging parameters

	Cost pools		
	Connection service costs	***Demand related service costs***	***Common service costs***
Residential			
Network access charge	Residential connection service costs and other customer related costs are recovered through network access charges.	For the *Residential 5000* and *Residential with heat pump* network charges, some demand related service costs are recovered via network access charges.	
Energy charges		Energy demand related service costs for residential customers are generally recovered through residential energy charges.	Common service costs are recovered in energy charges.
Commercial LV			
Network access charge	Commercial connection service costs and other customer related costs are recovered through network access charges.		
Energy charges		Demand related costs are recovered through the energy charges.	Common service costs are recovered through the energy charges.
Capacity and maximum demand charges		Where demand and capacity charges apply, demand related service costs are mostly recovered in demand and capacity charges.	
Commercial HV			
Network access charge	High voltage connection service costs and other customer related costs are recovered through network access charges		
Energy charges		Some of the demand related costs are recovered through the energy charges.	Common service costs are recovered through the energy charges.
Capacity and maximum demand charges		Most demand related costs are recovered through the demand and capacity charges.	

2.4.4 Allocating transmission use of system charges and jurisdictional scheme costs

Transmission use of system (TUOS) costs comprise ActewAGL Distribution's regulated revenue from its dual function assets, avoided TUOS payments to embedded generators and TUOS charges paid to TransGrid and other transmission service providers. In addition, there are adjustments each year through ActewAGL Distribution's overs and unders account to ensure that charges recover only the costs incurred. The cost of ActewAGL Distribution's dual function assets account for about 40 per cent of total TUOS costs. While the dual function asset costs have fallen in 2015/16, TUOS charges paid to TransGrid have increased significantly, resulting in an overall increase in TUOS charges. ActewAGL Distribution recovers TUOS costs in its energy charges and, where possible, in its demand and capacity charges.

Jurisdictional schemes costs are allocated to network energy charges, so customers pay in proportion to the amount of energy they consume with some weighting for time of use to minimise the distortive effect to the pricing signals sent to consumers. If the jurisdictional charges were the same for peak, shoulder and off-peak energy, it would change the relativities between energy prices, discouraging off-peak usage and favouring peak time consumption.

3 Network tariffs for 2015/16

3.1 The average annual smoothed revenue cap for standard control services

3.1.1 Average annual smoothed revenue for standard control services

ActewAGL Distribution's standard control services prices are regulated using an average annual smoothed revenue (AAR) cap The AAR for 2014/15 calculated according to the AER's determination for that year is $0.05326 per kWh. For 2015/16 the X factor is 18.76 per cent as determined in the AER's Final Decision. The CPI of 2.49 per cent is applied to the allowed average revenue (AAR) for 2014/15 to obtain the allowed average revenue in 2015/16. The calculations of the AAR are shown in Table 3.1.

Table 3-1 Calculation of the Allowable Average Revenue 2015/16

	AAR previous year	*X Factor*	*Sum of CPI indices*	*CPI*	*AAR*
2014/15	$0.06435	19.59%	*414.0*	2.93%	$0.05326
2015/16	$0.05326	18.76%	*424.3*	2.49%	$0.04435

Note that, while the CPI is shown as a percentage to 2 decimal places, the actual CPI figure applied to the AAR of the previous year is calculated based on the CPI index for the March quarter divided by the CPI index for March in the previous calendar year[17]. Similarly, the AAR figures are not rounded.

3.1.2 Calculation of the revenue cap for DUOS prices

The AAR is applied to the actual energy transported in the previous full financial year to establish an average revenue cap for the following financial year. Therefore, the prices for 2015/16 are based upon energy transported in 2013/14. The actual energy transported in the 2013/14 financial year was 2,845,462,080 kWh. This is multiplied by the AAR for 2015/16 of $0.04435 per kWh, to give the revenue ceiling for standard control services delivered in 2013/14 of $126,187,554.

In addition there is a pass-through for vegetation management costs in 2012/13 together with the time cost of money, totalling $2.31 million as shown in Table 3-2. In its Final Decision, the AER confirms that the approved vegetation management pass through amount will be recovered in distribution charges.[18] The pass through amount has been adjusted for the WACC in the Final Decision and the cost of money for an additional year.

[17] NER Chapter 10, Glossary
[18] Final Decision Attachment 14, (p14-13)

Table 3-2 Calculation of vegetation management pass through cost 2015/16

Change in Vegetation Management Cost 2012/13	$1,857,511
Time cost of money	
2012/13, 6 months (4.30%)	$79,873
2013/14, 12 months (8.79%)	$170,296
2014/15, 12 months (6.48%)	$136,635
2015/16, 6 months (3.14%)	$70,539
Total Cost	**$2,314,854**

The energy throughput in 2015/16 is forecast[19] to be 3.27 per cent lower than in 2013/14. Therefore, to recover the required amount with the lower throughput, the pass-through amount applied to 2013/14 throughput must be inflated 3.27% to $2.39 million to ensure the correct amount is recovered in 2015/16.

The calculation of the revenue to be recovered from 2015/16 distribution use of system (DUOS) charges is shown in Table 3-3.

Table 3-3 Calculation of the revenue cap for DUOS prices 2015/16

Allowable average revenue ($/kWh)*		*A*	$0.04435
Energy sales ACT (kWh)	2013/14	*B*	2,845,462,080
Allowable revenue cap for standard control services		*C = A x B*	$126,187,554
Vegetation management		*D*	$2,390,119
Distribution use-of-system annual revenue cap		*E=C+D*	$128,577,673

* The AAR shown in this table has been rounded to 5 decimal places. The calculations have been made without rounding.

3.2 Distribution use of system charges

ActewAGL Distribution's proposed DUOS prices for 2015/16 are shown in Table 3-4. These would have recovered $128,577,668 on the actual customer, demand and energy quantities recorded in the 2013/14 financial year. The proposed distribution prices are, therefore, within the distribution use-of-system annual revenue cap.

The table shows the tariff classes that are to apply in 2015/16 and the tariffs for each tariff class. The charging parameters for each tariff are set out together with the service to which that charging parameter relates. All prices exclude GST unless otherwise stated. The 2015/16 notional revenue numbers shown in the table are the proposed charges multiplied by the relevant quantities for the previous financial year (2013/14).

[19] This is the forecast in the AER's Final Decision.

Table 3-4 Distribution use of system charges 2015/16

Tariff Class & Code	Tariff & Element of Service	Units	2013/14 kWh /Cust No. / kVA	2015/16 Proposed Charges	2015/16 Notional Revenue
Residential tariffs					
10	**Residential Basic Network**				
	Network access	c/day/customer	131,094	25.26	$12,086,741
	Energy at any time	c/kWh	860,302,488	3.4337	$29,540,207
15	**Residential TOU Network**				
	Network access	c/day/customer	15,131	25.26	$1,395,024
	Energy at max times	c/kWh	20,841,038	9.0264	$1,881,195
	Energy at mid times	c/kWh	30,547,845	3.6605	$1,118,204
	Energy at economy times	c/kWh	20,307,546	1.1095	$225,312
20	**Residential 5000 Network**				
	Network access	c/day/customer	8,219	46.46	$1,393,739
	Energy for the first 60 kWh per day	c/kWh	33,603,915	2.1483	$721,913
	Energy above 60 kWh per day	c/kWh	924,311	3.4337	$31,738
30	**Residential with Heat Pump Network**				
	Network access	c/day/customer	4,546	89.16	$1,479,464
	Energy for the first 165 kWh per day	c/kWh	73,323,519	0.7128	$522,650
	Energy above 165 kWh per day	c/kWh	493,208	3.4337	$16,935
60	**Off-Peak (1) Night Network**				
	Energy at controlled times	c/kWh	13,055,186	0.0752	$9,817
70	**Off-Peak (3) Day & Night Network**				
	Energy at controlled times	c/kWh	80,115,175	0.3455	$276,798
	Renewable Energy Generation				
	Gross metered energy	c/kWh	18,522,698	0.00	$0
COMMERCIAL LOW VOLTAGE TARIFFS					
40	**General Network**				
	Network access	c/day/customer	12,134	46.34	$2,052,304
	Energy for the first 330 kWh per day	c/kWh	255,429,342	6.2588	$15,986,812
	Energy above 330 kWh per day	c/kWh	15,242,565	9.4040	$1,433,411
135	**Small Unmetered Loads Network**				
	Network access	c/day/customer	23	37.70	$3,165
	Energy at any time	c/kWh	1,402,871	9.1386	$128,203
80	**Streetlighting Network**				
	Network access	c/day/customer	20	46.83	$3,360
	Energy for night time lighting of streets public ways & places	c/kWh	42,020,835	5.2259	$2,195,967
90	**General TOU Network**				
	Network access	c/day/customer	1,288	46.34	$217,881
	Energy at business times	c/kWh	38,194,540	13.1995	$5,041,488
	Energy at evening times	c/kWh	16,281,367	6.0580	$986,325
	Energy at off-peak times	c/kWh	42,176,291	2.4464	$1,031,801
Low voltage time of use demand network					
101	**LV TOU kVA Demand Network**				
	Network access	c/day/connection point	1,770	50.30	$324,927

	Maximum demand	c/kVA/day	223,002	28.8278	$23,464,645
	Energy at business times	c/kWh	357,654,518	2.5423	$9,092,651
	Energy at evening times	c/kWh	126,431,414	1.7642	$2,230,503
	Energy at off-peak times	c/kWh	383,390,583	0.7742	$2,968,210
103	**LV TOU Capacity Network**				
	Network access	c/day/connection point	52	50.30	$9,598
	Maximum demand (in billing period)	c/kVA/day	9,427	16.4805	$567,086
	Capacity (maximum demand in last year)	c/kVA/day	11,154	16.4805	$670,941
	Energy at business times	c/kWh	17,813,348	3.8270	$681,717
	Energy at evening times	c/kWh	7,543,472	2.0975	$158,224
	Energy at off-peak times	c/kWh	25,086,276	0.7969	$199,913

HIGH VOLTAGE TARIFFS

High voltage time of use demand network with ActewAGL low voltage network

111	**HV TOU Demand Network**				
	Network access	$/day/connection point	1	19.00	$8,094
	Maximum demand (in billing period)	c/kVA/day	1,565	9.6337	$55,044
	Capacity (maximum demand in last year)	c/kVA/day	1,910	9.6337	$67,161
	Energy at business times	c/kWh	2,723,548	1.6444	$44,786
	Energy at evening times	c/kWh	1,126,712	1.0811	$12,181
	Energy at off-peak times	c/kWh	3,403,721	0.3802	$12,941
112	**HV TOU Demand Network – Customer HV**				
	Network access	$/day/connection point	0	19.00	$0
	Maximum demand (in billing period)	c/kVA/day	0	8.6337	$0
	Capacity (maximum demand in last year)	c/kVA/day	0	8.6337	$0
	Energy at business times	c/kWh	0	1.6444	$0
	Energy at evening times	c/kWh	0	1.0811	$0
	Energy at off-peak times	c/kWh	0	0.3802	$0

High voltage time of use demand network without ActewAGL low voltage network

121	**HV TOU Demand Network – Customer LV**				
	Network access	$/day/connection point	23	19.00	$156,931
	Maximum demand (in billing period)	c/kVA/day	66,301	9.6337	$2,331,343
	Capacity (maximum demand in last year)	c/kVA/day	83,295	9.6337	$2,928,917
	Energy at business times	c/kWh	132,358,004	1.2484	$1,652,357
	Energy at evening times	c/kWh	51,112,763	0.7346	$375,474
	Energy at off-peak times	c/kWh	166,407,699	0.2416	$402,041
122	**HV TOU Demand Network – Customer HV and LV**				
	Network access	$/day/connection point	2	19.00	$15,561
	Maximum demand (in billing period)	c/kVA/day	2,226	12.2155	$99,261
	Capacity (maximum demand in last year)	c/kVA/day	4,263	12.2155	$190,073
	Energy at business times	c/kWh	2,664,781	2.0669	$55,078
	Energy at evening times	c/kWh	1,175,600	1.0277	$12,082
	Energy at off-peak times	c/kWh	3,784,901	0.2503	$9,474
	Total				**$128,577,668**
	Total Customers		**174,302**		
	Total Energy Consumption		**2,845,462,080**		

To show compliance with the AER's control mechanism, ActewAGL Distribution is required to demonstrate that the sum of the standard control services revenue using the prices for the pricing year and the quantities for the previous financial year divided by the quantity of energy in kWh transported over the previous financial year is less than or equal to the average annual revenue cap (AARC) for the pricing year.[20]

The sum of DUOS charges is divided by the 2013/14 financial year energy transported in the ACT of 2,845,462,080 kWh, it results in an average price of $0.0451869 per kWh. The AARC for 2015/16 is the AAR of $0.0443469 per kWh plus the vegetation management pass-through amount which is equivalent to $0.0008400 per kWh, taking the total AARC to $0.0451869 per kWh. As the average price is equal to the AARC, the prices comply with the AER's Final Decision.

3.2.1 Weighted average prices

Table 3-5 sets out for each tariff class related to standard control services the expected weighted average DUOS revenue[21] for the regulatory year and the current year, as required by clause 6.18.2(b)(4) of the Rules.

Table 3-5 Weighted average DUOS revenue by tariff class

DUOS	Weighted Average Revenue c/kWh			
Tariff Class	**2014/15 (c/kWh)**	**2015/16 (c/kWh)**	**Change c/kWh**	**Change %**
Residential Tariffs	5.17	4.40	-0.77	-14.8%
Commercial Low Voltage	6.26	5.23	-1.03	-16.5%
High Voltage	2.92	2.31	-0.61	-21.0%
Average	5.39	4.52	-0.87	-16.2%

The AER's Final Decision applies a side constraint to average DUOS charges for each customer class[22]. The relevant side constraint for 2015/16 is 6.5 per cent[23]. As average weighted prices for each tariff class is declining, the prices comply with the side constraint.

3.3 Transmission use of system charges

The AER separately regulates transmission use of system (TUOS) charges. In its Final Decision, the AER applied an X factor of 16 per cent which, with a CPI of 1.72[24] per cent, to ActewAGL Distribution's regulated revenue from prescribed (transmission) services for 2014/15 of $28,208,613 to determine the transmission revenue cap of $24,102,214 for

[20] The AER requirements are specified in formulae in section 14.5.3 of the Final Decision (p. 14-13). ActewAGL Distribution's approach is consistent with the formulae.

[22] AER, Final Decision, p14-14. ActewAGL Distribution's understanding is that 2015/16 is the first year of the regulatory period (in accordance with clause 11.56.4(g) of the Rules), so side constraints do not apply. See ActewAGL Distribution's May 2014 Subsequent Regulatory Proposal (p. 310) for an explanation of the relevant Rules.

[23] As the X factor is greater than zero, the side constraint comprises, the CPI of 2.49%, 2% and a B factor of 1.9%

[24] The CPI applied to TUOS is the change in the CPI from December 2013 to December 2014.

2015/16. ActewAGL Distribution advised TransGrid of this revenue requirement and it subsequently advised ActewAGL Distribution that its total TUOS cost for 2015/16 was estimated to be $58.835 million.

ActewAGL Distribution's total TUOS charges are not part of its regulated revenue requirement for distribution standard control services. Clause 6.18.7(a) of the Rules allows ActewAGL Distribution to pass on to customers the charges to be incurred by ActewAGL Distribution for TUOS services. Clause 6.18.7(b) of the Rules says that the amount to be passed on must not exceed the estimated amount of the TUOS charges for the relevant regulatory year adjusted for under or over recovery in the previous regulatory year. Clause 6.18.7(c) describes the method to be applied in determining the extent of under or over recovery.

To demonstrate compliance with clause 6.18.7 of the Rules and the AER's Final Decision, the AER requires ActewAGL Distribution to maintain a transmission use of system (TUOS) overs and unders account. Clause 6.18.2(b)(7) requires ActewAGL Distribution to provide information on this account as part of the annual pricing proposal. The AER requires ActewAGL Distribution to provide details of its calculations as set out in Appendix 14 A of its Final Decision. Table 3-6 below provides the details required in the format specified in Appendix 14 A.

Table 3-6 TUOS overs and unders account ($'000)

	2013/14 Actual	2014/15 Estimate	2015/16 Forecast
Revenue from TUOS charges	37,525	58,809	60,696
Transmission charges to be paid to TNSPs	43,010	60,170	58,835
Avoided TUOS payments	2	5	45
Inter-DNSP payments	0	0	0
Total transmission related payments	43,012	60,174	58,880
Over (under) recovery for the financial year	-5,486	-1,365	1,816
Overs and unders account			
Annual rate of interest applicable to balances	8.79%	6.48%	6.38%
Semi-annual interest rate	4.30%	3.19%	3.14%
Opening Balance	4,956	-330	-1,760
Interest on opening balance	436	-21	-112
Over/under recovery for financial year	-5,486	-1,365	1,816
Interest on over/under recovery	-236	-44	57
Closing balance	-330	-1,760	0

The forecast revenue requirement from TUOS charges for 2015/16 shown in Table 3-6 is $60,695,696; an increase of 3.2 per cent compared to estimated TUOS revenue for 2014/15.

ActewAGL Distribution has forecast TUOS costs would be $58,880,135 in 2015/16, a decrease of 2.2 per cent. ActewAGL Distribution recovers TUOS charges from ACT consumers according to the energy they consume and, where possible, according to maximum demand in a month (and over the year where capacity charges apply). The cost allocations take into account the load profile of each customer class. The consumption profile used to calculate TUOS prices is the same 2013/14 consumption profile used to calculate DUOS prices. Also, the TUOS charges are adjusted for the over or under recovery of TUOS charges in the previous regulatory years.

As the energy transported in 2015/16 is forecast to be about 3.27 per cent lower[25] than the actual energy transported in the 2013/14 financial year, the amount of TUOS to be recovered in prices using the load in 2013/14 has been adjusted upward to take account of that difference.[26] The TUOS prices would have recovered revenue of $62,746,556 under the 2013/14 profile as shown in Table 3-7.

Table 3-7 Transmission use of system charges 2015/16

Description	Unit	KWh/ Cust. No./KVA 2013/14	Proposed Price 2015/16	Notional TUOS Revenue
RESIDENTIAL TARIFFS				
10 Residential Basic Network				
Network access charge	cents/day	131,094	0.00	$0
Energy consumption	cents/kWh	860,302,488	2.3494	$20,211,947
15 Residential TOU Network				
Network access charge	cents/day	15,131	0.00	$0
Energy at max times	cents/kWh	20,841,038	1.4624	$304,779
Energy at mid times	cents/kWh	30,547,845	1.0026	$306,273
Energy at economy times	cents/kWh	20,307,546	0.7045	$143,067
20 Residential 5000 Network				
Network access charge	cents/day	8,219	0.00	$0
Energy for the first 60 kWh per day	cents/kWh	33,603,915	2.1148	$710,656
Energy above 60 kWh per day	cents/kWh	924,311	2.3494	$21,716
30 Residential with Heat Pump Network				
Network access charge	cents/day	4,546	0.00	$0
Energy for the first 165 kWh per day	cents/kWh	73,323,519	2.1003	$1,540,014
Energy above 165 kWh per day	cents/kWh	493,208	2.3494	$11,587
60 Off-Peak (1) Night Network				
Energy consumption	cents/kWh	13,055,186	1.1700	$152,746
70 Off-Peak (3) Day & Night Network				
Energy consumption	cents/kWh	80,115,175	1.6285	$1,304,676
Renewable Energy Generation				
Gross metered energy	cents/kWh	18,522,698	0.00	$0
Net metered energy	cents/kWh		0.0000	$0
COMMERCIAL LOW VOLTAGE TARIFFS				

[25] This is the forecast in the AER's Final Decision.
[26] AER, *Final decision, Control mechanisms for direct control services for the ACT and NSW 2009 distribution determinations*, February 2008, part 5.8.

40 General Network

Network access charge	cents/day	12,134	0.00	$0
Energy for the first 330 kWh per day	cents/kWh	255,429,342	3.2943	$8,414,609
Energy above 330 kWh per day	cents/kWh	15,242,565	3.3291	$507,440

135 Small Unmetered Loads Network

Network access charge	cents/day	23	0.00	$0
Energy consumption	cents/kWh	1,402,871	1.1933	$16,740

80 Streetlighting Network

Network access charge	cents/day	20	0.00	$0
Energy consumption	cents/kWh	42,020,835	0.9570	$402,139

90 General TOU Network

Network access charge	cents/day	1,288	0.00	$0
Energy at business times	cents/kWh	38,194,540	2.1665	$827,485
Energy at evening times	cents/kWh	16,281,367	1.1251	$183,182
Energy at off-peak times	cents/kWh	42,176,291	0.2155	$90,890

Low voltage time of use demand network

101 LV TOU kVA Demand Network

Network access per connection point	cents/day	1,770	0.00	$0
Maximum demand charge	c/KVA/day	223,002	12.8722	$10,477,442
Energy at business times	cents/kWh	357,654,518	2.5437	$9,097,658
Energy at evening times	cents/kWh	126,431,414	0.6489	$820,413
Energy at off-peak times	cents/kWh	383,390,583	0.0377	$144,538

103 LV TOU Capacity Network

Network access per connection point	cents/day	52	0.00	$0
Maximum demand charge	c/KVA/day	9,427	3.0195	$103,900
Capacity charge	c/KVA/day	11,154	3.0195	$122,927
Energy at business times	cents/kWh	17,813,348	1.2590	$224,270
Energy at evening times	cents/kWh	7,543,472	0.3156	$23,807
Energy at off-peak times	cents/kWh	25,086,276	0.0150	$3,763

HIGH VOLTAGE TARIFFS

High voltage time of use demand network with ActewAGL low voltage network

111 HV TOU Demand Network

Network access per connection point	$/day	1	0.00	$0
Maximum demand charge	c/KVA/day	1,565	7.0663	$40,375
Capacity charge	c/KVA/day	1,910	7.0663	$49,263
Energy at business times	cents/kWh	2,723,548	1.6285	$44,353
Energy at evening times	cents/kWh	1,126,712	0.5823	$6,561
Energy at off-peak times	cents/kWh	3,403,721	0.0163	$555

112 HV TOU Demand Network – Customer HV

Network access per connection point	$/day	0	0.00	$0
Maximum demand charge	c/KVA/day	0	7.0663	$0
Capacity charge	c/KVA/day	0	7.0663	$0
Energy at business times	cents/kWh	0	1.6285	$0
Energy at evening times	cents/kWh	0	0.5823	$0
Energy at off-peak times	cents/kWh	0	0.0163	$0

High voltage time of use demand network without ActewAGL low voltage network

121 HV TOU Demand Network – Customer LV

Network access per connection point	$/day	23	0.00	$0
Maximum demand charge	c/KVA/day	66,301	7.0663	$1,710,035

Capacity charge	c/KVA/day	83,295	7.0663	$2,148,355
Energy at business times	cents/kWh	132,358,004	1.6245	$2,150,156
Energy at evening times	cents/kWh	51,112,763	0.5788	$295,841
Energy at off-peak times	cents/kWh	166,407,699	0.0149	$24,795
122 HV TOU Demand Network – Customer HV and LV				
Network access per connection point	$/day	2	0.00	$0
Maximum demand charge	c/KVA/day	2,226	3.4845	$28,314
Capacity charge	c/KVA/day	4,263	3.4845	$54,219
Energy at business times	cents/kWh	2,664,781	0.8060	$21,478
Energy at evening times	cents/kWh	1,175,600	0.2857	$3,359
Energy at off-peak times	cents/kWh	3,784,901	0.0062	$235
Total				**$62,746,556**

3.4 Jurisdictional Schemes

Jurisdictional scheme amounts are those ActewAGL Distribution must pay pursuant to ACT Government requirements. The jurisdictional schemes amounts in 2015/16 are:

- The Energy Industry Levy (EIL) $1m;
- The Utilities Network Facilities Tax (UNFT) $6.3m;
- The Feed-in Tariff (FiT) $15.3m; and
- The Feed-in Tariff for large schemes (FiT L) $8.4m.

These amounts are recovered in the Jurisdictional Charges. These charges also take into account over or under collections in previous years. Table 3-8 shows the calculation of the nominal value of the provision for 2013/14 in the AER's 2009/14 Determination for the Feed-in Tariff, UNFT and the EIL.

Table 3-8 CPI adjustment to the provision for the FiT, UNFT and EIL

	2013–14
Real Values	
FiT (provision in 2009-14 Distribution Determination) (real $'s 2008/09)	15,268,192
UNFT (provision in 2009-14 Distribution Determination) (real $'s 2008/09)	4,342,873
Energy Industry levy (provision in 2009-14 Determination) (real $'s 2006/07)	484,000
CPI Adjustment for FiT & UNFT	14.89%
CPI Adjustment for EIL	21.75%
Nominal Values	
FiT (provision in 2009-14 Distribution Determination)	17,541,916
UNFT (provision in 2009-14 Distribution Determination)	4,989,609
Energy Industry levy (provision in 2009-14 Determination)	589,291

These nominal values for 2014/15 have been included in the jurisdictional schemes unders and overs account for 2015/16 presented in Table 3-9, together with the actual and forecast payments for those years.

Table 3-9 Jurisdictional Schemes unders and overs account

	2013/14 Actual ($'000)	2014/15 Forecast ($'000)	2015/16 Forecast ($'000)
Jurisdictional Scheme Revenue	0	27,562	27,517
Feed-in Tariffs (small scale)	17,542		
UNFT (provision in 2009-14 Distribution Determination)	4,990		
Energy Industry levy (provision in 2009-14 Determination)	589		
Total jurisdictional scheme related revenue	23,121	27,562	27,517
Feed-in Tariffs (small & medium scale)	13,886	15,335	15,323
Feed-in Tariffs (large scale)		4,258	8,402
UNFT	5,556	5,900	6,257
Energy Industry levy	1,449	661	1,000
Total jurisdictional scheme related payments	20,890	26,154	30,982
Over (under) recovery for the financial year	2,230	1,408	-3,465
Overs and unders account			
Annual rate of interest applicable to balances*	8.79%	6.48%	6.38%
Semi-annual interest rate	4.30%	3.19%	3.14%
Opening Balance	-493	1,790	3,359
Interest on opening balance	-43	116	214
Over/under recovery for financial year	2,230	1,408	-3,465
Interest on over/under recovery	96	45	-109
Closing balance	1,790	3,359	0

The total amount to be recovered in jurisdictional scheme charges in 2015/16 is $27,517,205 as shown in Table 3-9. However, as energy sales in 2015/16 are forecast to be 3.27 per cent lower than in the 2013/14 financial year (used to set prices), the amount to be recovered using the load profile for 2013/14 has been inflated 3.27 per cent so that the charges applied in 2015/16 will recover the forecast amount.[27] Table 3-10 presents the 2015/16 charges for jurisdictional schemes and revenues to be recovered assuming the energy consumption profile in 2013/14.

Table 3-10 Jurisdictional Scheme charges 2015/16

Description	Unit	KWh/ Cust. No./KVA 2013/14	Proposed JS Prices 2015/16	Notional JS Revenue
RESIDENTIAL TARIFFS				
10 Residential Basic Network				
Network access charge	cents/day	131,094	0.00	$0
Energy consumption	cents/kWh	860,302,488	1.0169	$8,748,416
15 Residential TOU Network				

[27] This is consistent with the approach set out in the AER's Final Decision, Attachment 14 (p14.19).

Network access charge	cents/day	15,131	0.00	$0
Energy at max times	cents/kWh	20,841,038	1.2712	$264,931
Energy at mid times	cents/kWh	30,547,845	1.0169	$310,641
Energy at economy times	cents/kWh	20,307,546	0.7560	$153,525
20 Residential 5000 Network				
Network access charge	cents/day	8,219	0.00	$0
Energy for the first 60 kWh per day	cents/kWh	33,603,915	1.0169	$341,718
Energy above 60 kWh per day	cents/kWh	924,311	1.0169	$9,399
30 Residential with Heat Pump Network				
Network access charge	cents/day	4,546	0.00	$0
Energy for the first 165 kWh per day	cents/kWh	73,323,519	1.0169	$745,627
Energy above 165 kWh per day	cents/kWh	493,208	1.0169	$5,015
60 Off-Peak (1) Night Network				
Energy consumption	cents/kWh	13,055,186	0.6048	$78,958
70 Off-Peak (3) Day & Night Network				
Energy consumption	cents/kWh	80,115,175	0.7560	$605,671
Renewable Energy Generation				
Gross metered energy	cents/kWh	18,522,698	0.0000	$0
Net metered energy	cents/kWh		0.0000	$0
COMMERCIAL LOW VOLTAGE TARIFFS				
40 General Network				
Network access charge	cents/day	12,134	0.00	$0
Energy for the first 330 kWh per day	cents/kWh	255,429,342	1.0169	$2,597,461
Energy above 330 kWh per day	cents/kWh	15,242,565	1.0169	$155,002
135 Small Unmetered Loads Network				
Network access charge	cents/day	23	0.00	$0
Energy consumption	cents/kWh	1,402,871	0.7091	$9,948
80 Streetlighting Network				
Network access charge	cents/day	20	0.00	$0
Energy consumption	cents/kWh	42,020,835	1.0271	$431,596
90 General TOU Network				
Network access charge	cents/day	1,288	0.00	$0
Energy at business times	cents/kWh	38,194,540	1.3440	$513,335
Energy at evening times	cents/kWh	16,281,367	1.0169	$165,565
Energy at off-peak times	cents/kWh	42,176,291	0.7281	$307,086
Low voltage time of use demand network				
101 LV TOU kVA Demand Network				
Network access per connection point	cents/day	1,770	0.00	$0
Maximum demand charge	c/KVA/day	223,002	0.00	$0
Energy at business times	cents/kWh	357,654,518	1.3440	$4,806,877
Energy at evening times	cents/kWh	126,431,414	1.0169	$1,285,681
Energy at off-peak times	cents/kWh	383,390,583	0.7281	$2,791,467
103 LV TOU Capacity Network				
Network access per connection point	cents/day	52	0.0000	$0
Maximum demand charge	c/KVA/day	9,427	0.0000	$0
Capacity charge	c/KVA/day	11,154	0.0000	$0
Energy at business times	cents/kWh	17,813,348	1.3440	$239,411
Energy at evening times	cents/kWh	7,543,472	1.0169	$76,710

Energy at off-peak times	cents/kWh	25,086,276	0.7281	$182,653
HIGH VOLTAGE TARIFFS				
High voltage time of use demand network with ActewAGL LV network				
111 HV TOU Demand Network				
Network access per connection point	$/day	1	0.00	$0
Maximum demand charge	c/KVA/day	1,565	0.00	$0
Capacity charge	c/KVA/day	1,910	0.00	$0
Energy at business times	cents/kWh	2,723,548	1.3171	$35,872
Energy at evening times	cents/kWh	1,126,712	0.9966	$11,229
Energy at off-peak times	cents/kWh	3,403,721	0.7135	$24,286
112 HV TOU Demand Network – Customer HV				
Network access per connection point	$/day	0	0.00	$0
Maximum demand charge	c/KVA/day	0	0.00	$0
Capacity charge	c/KVA/day	0	0.00	$0
Energy at business times	cents/kWh	0	1.3171	$0
Energy at evening times	cents/kWh	0	0.9966	$0
Energy at off-peak times	cents/kWh	0	0.7135	$0
High voltage time of use demand network without ActewAGL LV network				
121 HV TOU Demand Network – Customer LV				
Network access per connection point	$/day	23	0.00	$0
Maximum demand charge	c/KVA/day	66,301	0.00	$0
Capacity charge	c/KVA/day	83,295	0.00	$0
Energy at business times	cents/kWh	132,358,004	1.3171	$1,743,287
Energy at evening times	cents/kWh	51,112,763	0.9966	$509,390
Energy at off-peak times	cents/kWh	166,407,699	0.7135	$1,187,319
122 HV TOU Demand Network – Customer HV and LV				
Network access per connection point	$/day	2	0.00	$0
Maximum demand charge	c/KVA/day	2,226	0.00	$0
Capacity charge	c/KVA/day	4,263	0.00	$0
Energy at business times	cents/kWh	2,664,781	1.3171	$35,098
Energy at evening times	cents/kWh	1,175,600	0.9966	$11,716
Energy at off-peak times	cents/kWh	3,784,901	0.7135	$27,005
Total				**$28,411,894**

3.5 Metering capital charges

Metering capital charges have been included in the network use-of-system charges to accommodate the changes required under the AER's Final Decision. This is explained in section 4.2 below.

3.6 Network use of system charges

Network use of system (NUOS) charges for 2015/16 comprise the distribution use of system (DUOS) charges, transmission use of system (TUOS) charges, jurisdictional scheme charges and for customers connected at 30 June 2015, metering capital charges. The proposed NUOS charges are shown in Table 3-11. All charges exclude GST.

Table 3-11 Network use of system charges 2015/16

Description	Unit	Distribution Charges 2015/16	Transmission Charges 2015/16	Jurisdictional Charges 2015/16	Metering Capital 2015/16	Network Charges 2015/16
RESIDENTIAL TARIFFS						
10 Residential Basic Network						
Network access charge	cents/day	25.26	0.00	0.00	7.53	32.79
Energy consumption	cents/kWh	3.4337	2.3494	1.0169		6.80
11 Residential Basic Network XMC*						
Network access charge	cents/day	25.26	0.00	0.00		25.26
Energy consumption	cents/kWh	3.4337	2.3494	1.0169		6.80
15 Residential TOU Network						
Network access charge	cents/day	25.2600	0.0000	0.0000	7.53	32.79
Energy at max times	cents/kWh	9.0264	1.4624	1.2712		11.76
Energy at mid times	cents/kWh	3.6605	1.0026	1.0169		5.68
Energy at economy times	cents/kWh	1.1095	0.7045	0.7560		2.57
16 Residential TOU Network XMC						
Network access charge	cents/day	25.26	0.00	0.00		25.26
Energy at max times	cents/kWh	9.0264	1.4624	1.2712		11.76
Energy at mid times	cents/kWh	3.6605	1.0026	1.0169		5.68
Energy at economy times	cents/kWh	1.1095	0.7045	0.7560		2.57
20 Residential 5000 Network						
Network access charge	cents/day	46.46	0.00	0.00	7.53	53.99
Energy for the first 60 kWh per day	cents/kWh	2.1483	2.1148	1.0169		5.28
Energy above 60 kWh per day	cents/kWh	3.4337	2.3494	1.0169		6.80
21 Residential 5000 Network XMC						
Network access charge	cents/day	46.46	0.00	0.00		46.46
Energy for the first 60 kWh per day	cents/kWh	2.1483	2.1148	1.0169		5.28
Energy above 60 kWh per day	cents/kWh	3.4337	2.3494	1.0169		6.80
30 Residential with Heat Pump Network						
Network access charge	cents/day	89.16	0.00	0.00	7.53	96.69
Energy for the first 165 kWh per day	cents/kWh	0.7128	2.1003	1.0169		3.83
Energy above 165 kWh per day	cents/kWh	3.4337	2.3494	1.0169		6.80
31 Residential with Heat Pump Network XMC						
Network access charge	cents/day	89.16	0.00	0.00		89.16
Energy for the first 165 kWh per day	cents/kWh	0.7128	2.1003	1.0169		3.83
Energy above 165 kWh per day	cents/kWh	3.4337	2.3494	1.0169		6.80
60 Off-Peak (1) Night Network						
Energy consumption	cents/kWh	0.0752	1.1700	0.6048		1.85
70 Off-Peak (3) Day & Night Network						
Energy consumption	cents/kWh	0.3455	1.6285	0.7560		2.73
Renewable Energy Generation						
Gross metered energy	cents/kWh	0.0000	0.0000	0.0000		0.00
Net metered energy	cents/kWh					
COMMERCIAL LOW VOLTAGE TARIFFS						
40 General Network						
Network access charge	cents/day	46.34	0.00	0.00	13.17	59.51

Energy for the first 330 kWh per day	cents/kWh	6.2588	3.2943	1.0169		10.57
Energy above 330 kWh per day	cents/kWh	9.4040	3.3291	1.0169		13.75
41 General Network XMC						
Network access charge	cents/day	46.34	0.00	0.00		46.34
Energy for the first 330 kWh per day	cents/kWh	6.2588	3.2943	1.0169		10.57
Energy above 330 kWh per day	cents/kWh	9.4040	3.3291	1.0169		13.75
135 Small Unmetered Loads Network						
Network access charge	cents/day	37.70	0.00	0.00		37.70
Energy consumption	cents/kWh	9.1386	1.1933	0.7091		11.04
80 Streetlighting Network						
Network access charge	cents/day	46.83	0.00	0.00	13.17	60.00
Energy consumption	cents/kWh	5.2259	0.9570	1.0271		7.21
81 Streetlighting Network XMC						
Network access charge	cents/day	46.83	0.00	0.00		46.83
Energy consumption	cents/kWh	5.2259	0.9570	1.0271		7.21
90 General TOU Network						
Network access charge	cents/day	46.34	0.00	0.00	13.17	59.51
Energy at business times	cents/kWh	13.1995	2.1665	1.3440		16.71
Energy at evening times	cents/kWh	6.0580	1.1251	1.0169		8.20
Energy at off-peak times	cents/kWh	2.4464	0.2155	0.7281		3.39
91 General TOU Network XMC						
Network access charge	cents/day	46.34	0.00	0.00		46.34
Energy at business times	cents/kWh	13.1995	2.1665	1.3440		16.71
Energy at evening times	cents/kWh	6.0580	1.1251	1.0169		8.20
Energy at off-peak times	cents/kWh	2.4464	0.2155	0.7281		3.39
Low voltage time of use demand network						
101 LV TOU kVA Demand Network						
Network access per connection point	cents/day	50.30	0.00	0.00	106.30	156.60
Maximum demand charge	c/KVA/day	28.8278	12.8722	0.0000		41.70
Energy at business times	cents/kWh	2.5423	2.5437	1.3440		6.43
Energy at evening times	cents/kWh	1.7642	0.6489	1.0169		3.43
Energy at off-peak times	cents/kWh	0.7742	0.0377	0.7281		1.54
103 LV TOU Capacity Network						
Network access per connection point	cents/day	50.30	0.00	0.00	106.30	156.60
Maximum demand charge	c/KVA/day	16.4805	3.0195	0.0000		19.50
Capacity charge	c/KVA/day	16.4805	3.0195	0.0000		19.50
Energy at business times	cents/kWh	3.8270	1.2590	1.3440		6.43
Energy at evening times	cents/kWh	2.0975	0.3156	1.0169		3.43
Energy at off-peak times	cents/kWh	0.7969	0.0150	0.7281		1.54
104 LV TOU kVA Demand Network XMC						
Network access per connection point	cents/day	50.30	0.00	0.00		50.30
Maximum demand charge	c/KVA/day	28.8278	12.8722	0.0000		41.70
Energy at business times	cents/kWh	2.5423	2.5437	1.3440		6.43
Energy at evening times	cents/kWh	1.7642	0.6489	1.0169		3.43
Energy at off-peak times	cents/kWh	0.7742	0.0377	0.7281		1.54
105 LV TOU Capacity Network XMC						
Network access per connection point	cents/day	50.30	0.00	0.00		50.30
Maximum demand charge	c/KVA/day	16.4805	3.0195	0.0000		19.50
Capacity charge	c/KVA/day	16.4805	3.0195	0.0000		19.50

Energy at business times	cents/kWh	3.8270	1.2590	1.3440	6.43
Energy at evening times	cents/kWh	2.0975	0.3156	1.0169	3.43
Energy at off-peak times	cents/kWh	0.7969	0.0150	0.7281	1.54
HIGH VOLTAGE TARIFFS					
High voltage time of use demand network with ActewAGL low voltage network					
111 HV TOU Demand Network					
Network access per connection point	$/day	19.00	0.00	0.00	19.00
Maximum demand charge	c/KVA/day	9.6337	7.0663	0.0000	16.70
Capacity charge	c/KVA/day	9.6337	7.0663	0.0000	16.70
Energy at business times	cents/kWh	1.6444	1.6285	1.3171	4.59
Energy at evening times	cents/kWh	1.0811	0.5823	0.9966	2.66
Energy at off-peak times	cents/kWh	0.3802	0.0163	0.7135	1.11
112 HV TOU Demand Network – Customer HV					
Network access per connection point	$/day	19.00	0.00	0.00	19.00
Maximum demand charge	c/KVA/day	8.6337	7.0663	0.0000	15.70
Capacity charge	c/KVA/day	8.6337	7.0663	0.0000	15.70
Energy at business times	cents/kWh	1.6444	1.6285	1.3171	4.59
Energy at evening times	cents/kWh	1.0811	0.5823	0.9966	2.66
Energy at off-peak times	cents/kWh	0.3802	0.0163	0.7135	1.11
High voltage time of use demand network without ActewAGL low voltage network					
121 HV TOU Demand Network – Customer LV					
Network access per connection point	$/day	19.00	0.00	0.00	19.00
Maximum demand charge	c/KVA/day	9.6337	7.0663	0.0000	16.70
Capacity charge	c/KVA/day	9.6337	7.0663	0.0000	16.70
Energy at business times	cents/kWh	1.2484	1.6245	1.3171	4.19
Energy at evening times	cents/kWh	0.7346	0.5788	0.9966	2.31
Energy at off-peak times	cents/kWh	0.2416	0.0149	0.7135	0.97
122 HV TOU Demand Network – Customer HV and LV					
Network access per connection point	$/day	19.00	0.00	0.00	19.00
Maximum demand charge	c/KVA/day	12.2155	3.4845	0.0000	15.70
Capacity charge	c/KVA/day	12.2155	3.4845	0.0000	15.70
Energy at business times	cents/kWh	2.0669	0.8060	1.3171	4.19
Energy at evening times	cents/kWh	1.0277	0.2857	0.9966	2.31
Energy at off-peak times	cents/kWh	0.2503	0.0062	0.7135	0.97

* XMC tariffs exclude metering capital charges.

3.7 Changes to network tariffs

The Rules (6.18.2(b)(8)) require an explanation of the nature and extent of changes from the previous regulatory year. Table 3.9 compares the network charges (excluding metering capital charges) in 2015/16 with those in 2014/15. The average change in network charges is shown in cents per kWh and as a percentage for an average consumer for each tariff.[28]

[28] The average change in network charges is calculated by determining the average revenue for each tariff using the prices for each year and taking the difference. The percentage change is this difference divided by the average revenue for each tariff using 2014/15 prices.

Table 3-12 Changes in network charges

Description	Unit	Network Charges 2014/15	Network Charges 2015/16	Average Change c/kWh	Average Change %
RESIDENTIAL TARIFFS					
10 Residential Basic Network				- 0.723	-8.1%
Network access charge	cents/day	23.16	25.3		
Energy consumption	cents/kWh	7.64	6.80		
15 Residential TOU Network				- 0.529	-5.8%
Network access charge	cents/day	23.16	25.3		
Energy at max times	cents/kWh	10.34	11.76		
Energy at mid times	cents/kWh	6.80	5.68		
Energy at economy times	cents/kWh	4.78	2.57		
20 Residential 5000 Network					
Network access charge	cents/day	44.36	46.5	- 0.658	-6.6%
Energy for the first 60 kWh per day	cents/kWh	6.12	5.28		
Energy above 60 kWh per day	cents/kWh	7.64	6.80		
30 Residential with Heat Pump Network					
Network access charge	cents/day	87.06	89.2	- 0.793	-11.9%
Energy for the first 165 kWh per day	cents/kWh	4.67	3.83		
Energy above 165 kWh per day	cents/kWh	7.64	6.80		
60 Off-Peak (1) Night Network					
Energy consumption	cents/kWh	2.19	1.85	- 0.340	-15.5%
70 Off-Peak (3) Day & Night Network					
Energy consumption	cents/kWh	2.90	2.73	- 0.170	-5.9%
Renewable Energy Generation					
Gross metered energy	cents/kWh	0.00	0.00	-	0.0%
COMMERCIAL LOW VOLTAGE TARIFFS					
40 General Network				- 1.180	-9.3%
Network access charge	cents/day	42.67	46.34		
Energy for the first 330 kWh per day	cents/kWh	11.81	10.57		
Energy above 330 kWh per day	cents/kWh	14.99	13.75		
135 Small Unmetered Loads Network				- 1.087	-8.8%
Network access charge	cents/day	37.70	37.7		
Energy consumption	cents/kWh	12.128	11.041		
80 Streetlighting Network				- 0.959	-11.7%
Network access charge	cents/day	43.00	46.83		
Energy consumption	cents/kWh	8.17	7.21		
90 General TOU Network				- 1.105	-10.2%
Network access charge	cents/day	42.67	46.34		
Energy at business times	cents/kWh	18.02	16.71		
Energy at evening times	cents/kWh	9.33	8.20		
Energy at off-peak times	cents/kWh	4.34	3.39		
Low voltage time of use demand network					
101 LV TOU kVA Demand Network				- 0.857	-9.9%
Network access per connection point	cents/day	50.00	50.300		
Maximum demand charge	c/KVA/day	48.60	41.70		
Energy at business times	cents/kWh	6.01	6.43		

Energy at evening times	cents/kWh	4.24	3.43		
Energy at off-peak times	cents/kWh	2.14	1.54		
103 LV TOU Capacity Network				- 0.748	-10.4%
Network access per connection point	cents/day	50.00	50.30		
Maximum demand charge	c/KVA/day	22.70	19.50		
Capacity charge	c/KVA/day	22.70	19.50		
Energy at business times	cents/kWh	6.01	6.43		
Energy at evening times	cents/kWh	4.24	3.43		
Energy at off-peak times	cents/kWh	2.14	1.54		
HIGH VOLTAGE TARIFFS					
High voltage time of use demand network with ActewAGL low voltage network					
111 HV TOU Demand Network				- 0.968	-14.5%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	19.10	16.70		
Capacity charge	c/KVA/day	19.10	16.70		
Energy at business times	cents/kWh	4.76	4.59		
Energy at evening times	cents/kWh	3.27	2.66		
Energy at off-peak times	cents/kWh	1.94	1.11		
112 HV TOU Demand Network – Customer HV					
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	18.20	15.70		
Capacity charge	c/KVA/day	18.20	15.70		
Energy at business times	cents/kWh	4.76	4.59		
Energy at evening times	cents/kWh	3.27	2.66		
Energy at off-peak times	cents/kWh	1.94	1.11		
High voltage time of use demand network without ActewAGL low voltage network					
121 HV TOU Demand Network – Customer LV				- 0.923	-15.5%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	19.10	16.70		
Capacity charge	c/KVA/day	19.10	16.70		
Energy at business times	cents/kWh	4.36	4.19		
Energy at evening times	cents/kWh	2.92	2.31		
Energy at off-peak times	cents/kWh	1.80	0.97		
122 HV TOU Demand Network – Customer HV and LV				- 1.342	-15.4%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	18.20	15.70		
Capacity charge	c/KVA/day	18.20	15.70		
Energy at business times	cents/kWh	4.36	4.19		
Energy at evening times	cents/kWh	2.92	2.31		
Energy at off-peak times	cents/kWh	1.80	0.97		

The decreases shown in the Table 3-12 reflect the changes in DUOS, TUOS and jurisdictional scheme charges in 2015/16. The CPI of 2.49 per cent and the standard control service X factor of 18.76 per cent decreased the AAR by 16.74 per cent. However, average TUOS charges increased by 0.6 per cent and average jurisdictional scheme charges increased by 1.0 per cent in 2015/16.

4 Charges for alternative control services

4.1 Ancillary services

For the 2015/16 regulatory year, the AER, in its Final Decision,[29] has set ancillary service charges to reflect the cost of providing the service. These charges are shown in Table 4-1.

Table 4-1 Charges for ancillary services 2015/16

Code	Description	Unit	Proposed Prices excl GST 2015/16	Proposed Prices incl.GST 2015/16
Premise Re-energisation – Existing Network Connection -These charges also apply where ActewAGL responds to a customer initiated call out and determines that the premise is energised at the connection point.				
501	Re-energise premise – Business Hours	per visit	$66.07	$72.68
502	Re-energise premise – After Hours	per visit	$83.75	$92.13
Premise De-energisation – Existing Network Connection				
503	De-energise premise – Business Hours	per visit	$66.07	$72.68
505	De-energise premise for debt non-payment	per test	$132.14	$145.35
Meter installation				
507	Install single phase, single element manually read interval meter	per meter	$500.92	$551.01
508	Install subsequent single phase, single element meter - same location & visit	per meter	$316.68	$348.35
509	Install single phase, two element meter	per meter	$609.18	$670.10
511	Install subsequent single phase, two element meter - same location & visit	per meter	$424.94	$467.43
512	Install three phase meter	per meter	$733.51	$806.86
513	Install subsequent three phase meter - same location & visit	per meter	$549.26	$604.19
Meter Investigations				
504	Meter Test (Whole Current) – Business Hours	per test	$264.28	$290.71
510	Meter Test (CT/VT) – Business Hours	per test	$306.07	$336.68
Special metering services				
506	Special Meter Read	per read	$30.56	$33.62
Temporary Network Connections				
520	Temporary Builders Supply – Overhead (Business Hours) (excludes meter cost)	per installation	$593.84	$653.22
522	Temporary Builders Supply – Underground (Business Hours) (excludes meter costs)	per installation	$1,296.40	$1,426.04
New Network Connections				
523	New Underground Service Connection – Greenfield	per installation	$0.00	$0.00
526	New Overhead Service Connection – Brownfield (Business Hours)	per installation	$779.95	$857.95
527	New Underground Service Connection – Brownfield from Front	per installation	$1,296.40	$1,426.04
528	New Underground Service Connection – Brownfield from Rear	per installation	$1,296.40	$1,426.04

[29] Final Decision, Attachment 16, Tables 16.17 and 16.22 inflated by CPI.

Network Connection Alterations and Additions				
541	Overhead Service Relocation – Single Visit (Business Hours)	per installation	$744.42	$818.86
542	Overhead Service Relocation – Two Visits (Business Hours)	per installation	$1,488.84	$1,637.72
543	Overhead Service Upgrade – Service Cable Replacement Not Required	per installation	$744.42	$818.86
544	Overhead Service Upgrade – Service Cable Replacement Required	per installation	$779.95	$857.95
545	Underground Service Upgrade – Service Cable Replacement Not Required	per installation	$1,260.88	$1,386.97
546	Underground Service Upgrade – Service Cable Replacement Required	per installation	$1,296.40	$1,426.04
547	Underground Service Relocation – Single Visit (Business Hours)	per installation	$1,296.40	$1,426.04
548	Install surface mounted point of entry (POE) box	per installation	$599.55	$659.51
Temporary De-energisation				
560	Temporary de-energisation – LV (Business Hours)	per occurrence	$396.42	$436.06
561	Temporary de-energisation – HV (Business Hours)	per occurrence	$396.42	$436.06
Supply Abolishment / Removal				
562	Supply Abolishment / Removal – Overhead (Business Hours)	per site visit	$558.32	$614.15
563	Supply Abolishment / Removal - Underground (Business Hours)	per site visit	$1,008.70	$1,109.57
Miscellaneous Customer Initiated Services				
564	Install & Remove Tiger Tails – Per Installation (Business Hours)	per installation	$1,311.10	$1,442.21
565	Install & Remove Tiger Tails - Per Span (Business Hours)	per installation	$660.02	$726.02
566	Install & Remove Warning Flags – Per Installation (Business Hours)	per installation	$1,116.63	$1,228.29
567	Install & Remove Warning Flags - Per Span (Business Hours)	per installation	$565.73	$622.30
Embedded Generation - Operational & Maintenance Fees				
568	Small Embedded Generation OPEX Fees - Connection Assets	per annum	2%	2%
569	Small Embedded Generation OPEX Fees - Shared Network Asset	per annum	2%	2%
Connection Enquiry Processing - PV Installations				
570	PV Connection Enquiry – LV Class 1 (<= 10kW Single Phase / 30kW Three Phase)	per installation	$0.00	$0.00
571	PV Connection Enquiry – LV Class 2 to 5 (> 30kW <= 1500kW Three Phase	per installation	$542.79	$597.07
572	PV Connection Enquiry – HV	per installation	$1,085.58	$1,194.14
573	Provision of information for Network technical study for large scale installations	per installation	$10,855.85	$11,941.44
Network Design & Investigation / Analysis Services - PV Installations				
574	Design & Investigation - LV Connection Class 1 PV (<= 10kW Single Phase / 30kW Three Phase)		$0.00	$0.00
575	Design & Investigation - LV Connection Class 2 PV (> 30kW and <= 60kW Three Phase)	per installation	$3,618.62	$3,980.48
576	Design & Investigation - LV Connection Class 3 PV (> 60 kW and <= 120kW Three Phase)	per installation	$5,427.92	$5,970.71
577	Design & Investigation - LV Connection Class 4 PV (> 120 kW and <= 200kW Three Phase)	per installation	$7,237.23	$7,960.95
578	Design & Investigation - LV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – ActewAGL Network Study	per installation	$10,855.85	$11,941.44

579	Design & Investigation - HV Connection Class 5 PV (>200kW and <= 1500kW Three Phase) – Customer Network Study	per installation	$13,569.81	$14,926.79
Residential Estate Subdivision Services*				
580	URD Subdivision Electricity Distribution Network Reticulation - Multi-Unit Blocks	per block	$0.00	$0.00
581	URD Subdivision Electricity Distribution Network Reticulation - Blocks <= 650 m^2	per block	$1,654.00	$1,819.40
582	URD Subdivision Electricity Distribution Network Reticulation - Blocks 650 - 1100m^2 with average linear frontage of 22-25 meters	per block	$2,167.00	$2,383.70
Upstream Augmentation**				
585	HV Feeder	per KVA	$35.83	$39.41
586	Distribution substation	per KVA	$20.75	$22.83
Rescheduled Site Visits				
590	Rescheduled Site Visit – One Person	per site visit	$132.14	$145.35
591	Rescheduled Site Visit – Service Team	per site visit	$558.32	$614.15
Trenching charges				
592	Trenching - first 2 meters	per visit	$506.80	$557.48
593	Trenching - subsequent meters	per meter	$117.86	$129.65
Boring charges				
594	Under footpath	per occurrence	$919.32	$1,011.25
595	Under driveway	per occurrence	$1,096.11	$1,205.72

*These charges were not included in the AER's schedule of ancillary services in the Final Decision. However they are included here for completeness (they were also included in ActewAGL Distribution's subsequent and revised regulatory proposals). The charges are calculated in accordance with ActewAGL Distribution's *Connection Policy 2015-19*, approved by the AER in the Final Decision. The per block prices have been updated to take account of the WACC and DUOS charges in the Final Decision, and updated for CPI.

The application of the charges for re-energising premises is to be extended to apply where ActewAGL responds to a customer initiated call out and determines that the premise was energised at the connection point and the outage was the responsibility of the consumer. This is intended to deal with the situation where a customer reports to the call centre that the power is out. If the call centre is not aware of a general outage, it requests the consumer to check their fuses and circuit breakers. There are cases where the customer reports that they have checked their fuses or circuit breakers and ActewAGL Distribution sends a crew only to find that the outage was caused by a blown fuse or tripped circuit breaker.

This change would enable the call centre to warn customers that a charge would be applicable if maintenance staff are sent and find that that the connection was energised and the outage was due to a burnt fuse or tripped circuit breaker. The application of this charge is intended to encourage customers to perform the necessary checks to their fuses or circuit breakers, so that ActewAGL Distribution is able to avoid unnecessary costs. It is not intended to raise additional revenue.

Table 4-2 compares the ancillary service charges for 2015/16 with the comparable charges for 2014/15.

Table 4-2 Changes to ancillary services charges

Code	Service	Pricing Unit	Prices excl.GST 2014/15	Prices excl.GST 2015/16	Change %
Premise Re-energisation – Existing Network Connection -These charges also apply where ActewAGL responds to a customer initiated call out and determines that the premise is energised at the connection point.					
501	Re-energise premise – Business Hours	per visit	$56.14	$66.07	17.7%
502	Re-energise premise – After Hours	per visit	$120.73	$83.75	-30.6%
Premise De-energisation – Existing Network Connection					
503	De-energise premise – Business Hours	per visit	$49.59	$66.07	33.2%
505	De-energise premise for debt non-payment	per test	$93.55	$132.14	41.3%
Meter installation					
507	Install single phase, single element manually read interval meter	per meter	$66.55	$500.92	653%
508	Install subsequent single phase, single element meter - same location & visit	per meter		$316.68	
509	Install single phase, two element meter	per meter	$66.55	$609.18	815%
511	Install subsequent single phase, two element meter - same location & visit	per meter		$424.94	
512	Install three phase meter	per meter		$733.51	
513	Install subsequent three phase meter - same location & visit	per meter		$549.26	
Meter Investigations					
504	Meter Test (Whole Current) – Business Hours	per test	$69.23	$264.28	282%
510	Meter Test (CT/VT) – Business Hours	per test	$350.00	$306.07	-12.6%
Special metering services					
506	Special Meter Read	per read	$35.55	$30.56	-14.0%
Temporary Network Connections					
520	Temporary Builders Supply – Overhead (Business Hours) (excludes meter cost)	per installation	$398.64	$593.84	49.0%
522	Temporary Builders Supply – Underground (Business Hours) (excludes meter costs)	per installation	$703.64	$1,296.40	84.2%
New Network Connections					
523	New Underground Service Connection – Greenfield	per installation	$0.00	$0.00	
526	New Overhead Service Connection – Brownfield (Business Hours)	per installation	$288.18	$779.95	171%
527	New Underground Service Connection – Brownfield from Front	per installation	$691.82	$1,296.40	87.4%
528	New Underground Service Connection – Brownfield from Rear	per installation	$691.82	$1,296.40	87.4%
Network Connection Alterations and Additions					
541	Overhead Service Relocation – Single Visit (Business Hours)	per installation	$288.18	$744.42	158%
542	Overhead Service Relocation – Two Visits (Business Hours)	per installation	$576.36	$1,488.84	158%
543	Overhead Service Upgrade – Service Cable Replacement Not Required	per installation	$371.45	$744.42	100%
544	Overhead Service Upgrade – Service Cable Replacement Required	per installation	$691.82	$779.95	12.7%
545	Underground Service Upgrade – Service Cable Replacement Not Required	per installation	$371.45	$1,260.88	239%
546	Underground Service Upgrade – Service Cable Replacement Required	per installation	$691.82	$1,296.40	87.4%
547	Underground Service Relocation – Single Visit (Business Hours)	per installation	$691.82	$1,296.40	87.4%
548	Install surface mounted point of entry (POE) box	per installation	$456.00	$599.55	31.5%
Temporary De-energisation					
560	Temporary de-energisation – LV (Business Hours)	per occurrence	$462.27	$396.42	-14.2%
561	Temporary de-energisation – HV (Business Hours)	per occurrence	$462.27	$396.42	-14.2%

Supply Abolishment / Removal					
562	Supply Abolishment / Removal – Overhead (Business Hours)	per site visit	$288.18	$558.32	93.7%
563	Supply Abolishment / Removal - Underground (Business Hours)	per site visit	$288.18	$1,008.70	250%
Miscellaneous Customer Initiated Services					
564	Install & Remove Tiger Tails – Per Installation (Business Hours)	per installation	$1,085.00	$1,311.10	20.8%
565	Install & Remove Tiger Tails - Per Span (Business Hours)	per installation	$560.00	$660.02	17.9%
566	Install & Remove Warning Flags – Per Installation (Business Hours)	per installation	$745.00	$1,116.63	49.9%
567	Install & Remove Warning Flags - Per Span (Business Hours)	per installation	$480.00	$565.73	17.9%
Embedded Generation - Operational & Maintenance Fees					
568	Small Embedded Generation OPEX Fees - Connection Assets	per annum	2%	2%	0.0%
569	Small Embedded Generation OPEX Fees - Shared Network Asset	per annum	2%	2%	0.0%
Connection Enquiry Processing - PV Installations					
570	PV Connection Enquiry – LV Class 1 (<= 10kW Single Phase / 30kW Three Phase)	per installation	$0.00	$0.00	
571	PV Connection Enquiry – LV Class 2 to 5 (> 30kW <= 1500kW Three Phase	per installation	$514.55	$542.79	5.5%
572	PV Connection Enquiry – HV	per installation	$1,029.09	$1,085.58	5.5%
573	Provision of information for Network technical study for large scale installations	per installation	$11,580.00	$10,855.85	-6.3%
Network Design & Investigation / Analysis Services - PV Installations					
574	Design & Investigation - LV Connection Class 1 PV (<= 10kW Single Phase / 30kW Three Phase)		$0.00	$0.00	
575	Design & Investigation - LV Connection Class 2 PV (> 30kW and <= 60kW Three Phase)	per installation	$3,705.45	$3,618.62	-2.3%
576	Design & Investigation - LV Connection Class 3 PV (> 60 kW and <= 120kW Three Phase)	per installation	$4,837.27	$5,427.92	12.2%
577	Design & Investigation - LV Connection Class 4 PV (> 120 kW and <= 200kW Three Phase)	per installation	$7,925.45	$7,237.23	-8.7%
578	Design & Investigation - LV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – ActewAGL Network Study	per installation	$10,732.73	$10,855.85	1.1%
579	Design & Investigation - HV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – Customer Network Study	per installation	$11,560.00	$13,569.81	17.4%
Residential Estate Subdivision Services*					
580	URD Subdivision Electricity Distribution Network Reticulation - Multi-Unit Blocks	per block	$0.00	$0.00	
581	URD Subdivision Electricity Distribution Network Reticulation - Blocks <= 650 m^2	per block	$600.00	$1,654.00	175.7%
582	URD Subdivision Electricity Distribution Network Reticulation - Blocks 650 - 1100m^2 with average linear frontage of 22-25 meters	per block	$1,100.00	$2,167.00	97.0%
Upstream Augmentation**					
585	HV Feeder	per KVA	$34.20	$35.83	4.8%
586	Distribution substation	per KVA	$19.82	$20.75	4.7%
Rescheduled Site Visits					
590	Rescheduled Site Visit – One Person	per site visit	$125.00	$132.14	5.7%
591	Rescheduled Site Visit – Service Team	per site visit	$375.00	$558.32	48.9%
Trenching charges					
592	Trenching - first 2 meters	per visit		$506.80	
593	Trenching - subsequent meters	per meter		$117.86	

Boring charges			
594	Under footpath	per occurrence	$919.32
595	Under driveway	per occurrence	$1,096.11

*These charges were not included in the AER's schedule of ancillary services in the Final Decision. However they are included here for completeness (they were also included in ActewAGL Distribution's subsequent and revised regulatory proposals). The charges are calculated in accordance with ActewAGL Distribution's *Connection Policy 2015-19,* approved by the AER in the Final Decision. The per block prices have been updated to take account of the WACC and the change to the AAR in the Final Decision, and updated for CPI.

4.2 The structure and basis of ActewAGL Distribution's metering charges

The AER's Final Decision requires two types of metering service charges:

- Upfront capital charge (for all new and upgraded meters installed from 1 July 2015); and
- Annual charge comprising of two components:
    - capital —metering asset base recovery; and
    - non-capital —operating expenditure and tax.

For existing regulated meters installed before 30 June 2015, ActewAGL Distribution has paid upfront for the capital costs of these meters which were then added to the asset base and recovered gradually, over the life of the meter, through annual charges.

If a customer with an existing regulated metering connection on their premises receives a regulated type 5 or 6 metering service, they will pay the following charges:

- Capital component of regulated annual metering charge
- Non-capital component of the regulated annual metering charge.

For regulated new meter connections installed after 1 July 2015, the capital costs will be paid upfront by the customer. If a customer has a new regulated metering connection that was installed on their premises after 1 July 2015 and receives a regulated type 5 or 6 metering service, they will pay only the non-capital component of the regulated annual metering charge. As they have already paid for their capital component upfront, the only costs relating to their regulated metering service left to be recovered through annual charges are the non-capital costs.

From 1 July 2017, a customer with an existing regulated metering connection on their premises may choose to switch to a competitive advanced metering service. When they do, they stop paying the non-capital component of the regulated annual metering charge (as they are not receiving ongoing meter operating and maintenance services from ActewAGL Distribution). However, they will continue to pay to ActewAGL Distribution the capital component of the regulated annual metering charge (as they must, under the AER's Final Decision, continue to make a contribution to recovery of the value of the existing meter asset base).

To facilitate these new metering arrangements, ActewAGL Distribution will include the metering capital charge in its network tariffs. These network tariffs with metering capital charges will apply to customers connected at 30 June 2015.

New customers who have paid up-front for the cost of their meters will not be required to pay the metering capital charge. To facilitate that and maintain records of these customers, ActewAGL Distribution will establish, where relevant, new network tariffs that exclude metering capital charges (XMC tariffs). These network tariffs will be applied to new connections that have paid for their metering assets.

These new tariffs ensure that ActewAGL Distribution and Retailers will be able to clearly identify, through the network billing system, which customers have paid for their meters and are therefore not liable for the metering capital charge.

The application of the new charges is summarized in the table below.

Type of customer	Pays ActewAGL metering capital charge	Eligible for XMC tariffs	Pays ActewAGL metering non-capital charges
Existing connection at 30 June 2015, ActewAGL provides metering service.	Yes	No	Yes
Existing connection at 30 June 2015, switches to another metering provider.	Yes	No	No
Existing connection at 30 June 2015, pays for new meter for PV system, ActewAGL provides metering service.	Yes	No	Yes
Existing connection at 30 June 2015 pays for new meter for PV system, later switches to another metering provider.	Yes	No	No
New connection (from 1 July 2015) pays for new meter, ActewAGL provides metering service.	No	Yes	Yes

New connection (from 1 July 2015) pays for new meter, switches to another metering provider.	No	Yes	No

Customers connected at 30 June 2015 will continue to pay the metering capital charge even if they later pay for a new meter (eg for a PV system) or choose, at a later date, to transfer to another metering service provider.

The XMC tariffs are similar to the residential and commercial low voltage tariffs but exclude the metering capital cost component. The unmetered loads do not have an XMC tariff because ActewAGL Distribution has not connected meters to these loads. Also, the off-peak network tariffs would not have an equivalent XMC tariff because the metering costs would be associated with the customer's substantive tariff, not the supplementary off-peak tariff. Furthermore, there are no high voltage XMC network tariffs, because high voltage network tariffs exclude metering charges as ActewAGL Distribution have not provided manually read meters to these customers since they have been required to use remotely read (types 1- 4) meters.

4.3 Metering non-capital charges for 2015/16

As discussed above, the AER has set caps for the annual metering non-capital charges in its Final Decision[30]. These charges have been converted into a daily charge by dividing them by 366. Table 4-3 presents the proposed metering non-capital charges for 2015/16. The new annual metering non-capital charges apply to both existing and new metering customers.

Table 4-3 Metering non-capital charges, 2015/16

Code	Description	Unit	Excluding GST 2015/16	Including GST 2015/16
MP1	**Quarterly basic metering rate**			
	Accumulation and time-of-use meters read quarterly	cents per day per NMI*	3.710	4.081
MP2	**Monthly basic metering rate**			
	Accumulation and time-of-use meters read monthly	cents per day per NMI	6.490	7.139
MP3	**Time-of-use metering rate**			
	Time-of-use meters read monthly	cents per day per NMI	6.490	7.139
MP4	**Monthly manually-read interval metering rate**			
	Interval meters recording at either 15- or 30-minute intervals, read manually and processed monthly	$ per day per NMI	0.524	0.576
MP6	**Quarterly manually-read interval metering rate**			
	Interval meters recording at either 15- or 30-minute intervals, read manually and processed quarterly	cents per day per NMI	14.950	16.445

*National Meter Identifier.

[30] AER Final Decision, Attachment 16, (p16-61)

The main change to the metering services offered in 2015/16 is the splitting of the metering service charge into two components: the metering capital, and the metering non-capital components. The combined capital and non-capital metering charges are 15.7 per cent lower than metering charges in 2014/15. The non-capital metering charge alone is 72 per cent lower than the metering charges in 2014/15.

The AER's newly determined up-front charges for new and upgrade meters for 2015/16 are included in Table 4-1 (codes 507-513).

4.4 Metering capital charges for 2015/16

The new metering capital charges are shown below in Table 4-4 and were added to the network charges in Table 3-11. These are the amounts approved in the AER's Final Decision reduced to a daily charge by dividing them by 366. ActewAGL Distribution has not included the capital charge for manually read interval meters as no customers have chosen to take up this charge.

ActewAGL Distribution has not included the capital charge for manually read interval meters because there are no existing customers (nor retailers) that have chosen to take up this metering charge to obtain the interval data. If customers on the quarterly basic metering rate they were to change to the interval metering rate, they would pay the quarterly manually read interval metering non-capital rate and retain the quarterly basic metering capital rate.

Table 4-4 Metering capital charges, 2015/16

Code	Description	Unit	Prices 2015/16
MP7	**Quarterly basic metering capital rate**		
	Accumulation and time-of-use meters read quarterly	cents per day per NMI*	7.53
MP8	**Monthly basic metering capital rate**		
	Accumulation and time-of-use meters read monthly	cents per day per NMI	13.17
MP9	**Time-of-use metering capital rate**		
	Time-of-use meters read monthly	cents per day per NMI	13.17
MP10	**Monthly manually-read interval metering capital rate**		
	Interval meters recording at either 15- or 30-minute intervals, read manually and processed monthly	cents per day per NMI	106.30

*National Meter Identifier.

5 Indicative customer impacts

5.1 Changes in network and metering charges

ActewAGL Distribution's customers who consume less than 160 MWh per annum are most likely to be subject to both the network tariffs and the regulated metering non-capital charges. Accordingly, Table 5-1 shows network charges (DUOS, TUOS, jurisdictional schemes and metering capital) plus metering non-capital charges for 2015/16 and the comparable charges for 2014/15, excluding GST.

High voltage charges do not include metering charges as metering services to customers consuming more than 160 MWh per annum are open to competition and not regulated. Tariffs that exclude metering capital are not shown as there were no XMC tariff customers in 2014/15.

Table 5-1 Network and metering charges 2015/16

Description	Unit	Network& metering charges 2014/15	Network& metering charges 2015/16	Average Change c/kWh	Average Change %
RESIDENTIAL TARIFFS					
10 Residential Basic Network				-0.84	-8.7%
Network access charge	cents/day	36.50	36.50		
Energy consumption	cents/kWh	7.64	6.80		
15 Residential TOU Network				-0.69	-6.9%
Network access charge	cents/day	36.50	36.50		
Energy at max times	cents/kWh	10.34	11.76		
Energy at mid times	cents/kWh	6.80	5.68		
Energy at economy times	cents/kWh	4.78	2.57		
20 Residential 5000 Network				-0.84	-7.5%
Network access charge	cents/day	57.70	57.70		
Energy for the first 60 kWh per day	cents/kWh	6.12	5.28		
Energy above 60 kWh per day	cents/kWh	7.64	6.80		
30 Residential with Heat Pump Network				-0.84	-12.1%
Network access charge	cents/day	100.40	100.40		
Energy for the first 165 kWh per day	cents/kWh	4.67	3.83		
Energy above 165 kWh per day	cents/kWh	7.64	6.80		
60 Off-Peak (1) Night Network				-0.34	-15.5%
Energy consumption	cents/kWh	2.19	1.85		
70 Off-Peak (3) Day & Night Network				-0.17	-5.9%
Energy consumption	cents/kWh	2.90	2.73		
Renewable Energy Generation					
Gross metered energy	cents/kWh	0.00	0.00	0.00	
COMMERCIAL LOW VOLTAGE TARIFFS					
40 General Network				-1.24	-9.5%

Network access charge	cents/day	66.00	66.00		
Energy for the first 330 kWh per day	cents/kWh	11.81	10.57		
Energy above 330 kWh per day	cents/kWh	14.99	13.75		
135 Small Unmetered Loads Network				-1.09	-8.8%
Network access charge	cents/day	37.70	37.70		
Energy consumption	cents/kWh	12.128	11.041		
80 Streetlighting Network				-0.96	-11.7%
Network access charge	cents/day	66.33	60.00		
Energy consumption	cents/kWh	8.17	7.21		
90 General TOU Network				-1.12	-10.3%
Network access charge	cents/day	66.00	66.00		
Energy at business times	cents/kWh	18.02	16.71		
Energy at evening times	cents/kWh	9.33	8.20		
Energy at off-peak times	cents/kWh	4.34	3.39		
Low voltage time of use demand network					
101 LV TOU kVA Demand Network				-0.88	-10.0%
Network access per connection point	cents/day	238.00	209.00		
Maximum demand charge	c/KVA/day	48.60	41.70		
Energy at business times	cents/kWh	6.01	6.43		
Energy at evening times	cents/kWh	4.24	3.43		
Energy at off-peak times	cents/kWh	2.14	1.54		
103 LV TOU Capacity Network				-0.76	-10.4%
Network access per connection point	cents/day	238.00	209.00		
Maximum demand charge	c/KVA/day	22.70	19.50		
Capacity charge	c/KVA/day	22.70	19.50		
Energy at business times	cents/kWh	6.01	6.43		
Energy at evening times	cents/kWh	4.24	3.43		
Energy at off-peak times	cents/kWh	2.14	1.54		
HIGH VOLTAGE TARIFFS					
High voltage time of use demand network with ActewAGL LV network					
111 HV TOU Demand Network				-0.97	-14.5%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	19.10	16.70		
Capacity charge	c/KVA/day	19.10	16.70		
Energy at business times	cents/kWh	4.76	4.59		
Energy at evening times	cents/kWh	3.27	2.66		
Energy at off-peak times	cents/kWh	1.94	1.11		
112 HV TOU Demand Network – Customer HV					
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	18.20	15.70		
Capacity charge	c/KVA/day	18.20	15.70		
Energy at business times	cents/kWh	4.76	4.59		
Energy at evening times	cents/kWh	3.27	2.66		
Energy at off-peak times	cents/kWh	1.94	1.11		
High voltage time of use demand network without ActewAGL LV network					
121 HV TOU Demand Network – Customer LV				-0.92	-15.5%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	19.10	16.70		
Capacity charge	c/KVA/day	19.10	16.70		

Energy at business times	cents/kWh	4.36	4.19		
Energy at evening times	cents/kWh	2.92	2.31		
Energy at off-peak times	cents/kWh	1.80	0.97		
122 HV TOU Demand Network – Customer HV and LV				-1.34	-15.4%
Network access per connection point	$/day	19.00	19.00		
Maximum demand charge	c/KVA/day	18.20	15.70		
Capacity charge	c/KVA/day	18.20	15.70		
Energy at business times	cents/kWh	4.36	4.19		
Energy at evening times	cents/kWh	2.92	2.31		
Energy at off-peak times	cents/kWh	1.80	0.97		

5.2 Estimated impacts on average customer electricity network bills

The proposed 2015/16 decreases in network and metering charges would lower the electricity network bill for an average residential customer consuming 7,000 kWh on the Residential Basic network tariff by $1.24 per week (including GST), a real decrease of 11.0 per cent (8.8 per cent nominal).

For a commercial customer consuming 30 MWh per annum on the General network charge, the network and metering price decreases would lower their electricity network bill by $7.87 per week (including GST) implying a decrease 12.0 per cent real reduction in prices (9.8 per cent nominal decrease).

5.3 Review of the basis on which a retail customer is charged

In its Final Decision[31], the AER required that:

> *Where the charging parameters for a particular tariff result in a basis of charge varying according to the retail customer's usage or load profile, ActewAGL must set out in its annual pricing proposal a method by which it will review and assess the basis on which a retail customer is charged.*

ActewAGL Distribution does not have any tariffs in which the basis of the charge varies according to the retail customer's usage or load profile. Even the streetlight tariff, which applies only to usage for public lighting loads that operate at night, and not to public lighting in tunnels, etc, the basis of the charge does not vary with usage, or its load profile. Therefore, there is no need for ActewAGL Distribution to propose any method to review the basis on which a retail customer is charged.

[31] Final Decision, Attachment 14 (p14.25)

Attachment 1: Compliance with regulatory requirements

Table A1.1 provides a checklist of where the relevant requirements of Part I of chapter 6 of the Rules are met in this document.

One of the Rules requirements is that the pricing proposal demonstrates compliance with any applicable distribution determination (clause 6.18.2(7)). Table A1.2 provides a separate checklist of the relevant requirements from the AER's Final Decision, and where they are addressed in this document.

Table A1.1: Checklist of Rules requirements for pricing proposals

Rules	*Requirement*	*Coverage in this document*
6.18.2 (b)	The pricing proposal must:	
	(1) set out the tariff classes that are to apply for the relevant regulatory year; and	(1) The tariff classes for standard control services are set out in Section 2.1.
	(2) set out the proposed tariffs for each tariff class; and	(2) Distribution tariffs are in Table 3-4. Charges for ancillary services and metering services are provided in Table 4.2.
	(3) set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates; and	(3) Section 2.1 and Tables 2.1, 2.2 and 2.3 set out each charging parameter and the element of service to which it relates.
	(4) set out, for each tariff class related to standard control services, the expected weighted average revenue for the relevant regulatory year and also for the current regulatory year; and	(4) Table 3.4 shows the weighted average DOUS revenue for 2014/15 and 2015/16.
	(5) set out the nature of any variation or adjustment to the tariff that could occur during the course of the regulatory year and the basis on which it could occur; and	(5) ActewAGL Distribution does not propose any variations or adjustments to tariffs for 2015/16. Any variations would be made in accordance with the cost pass through mechanisms in the AER's final determination.
	(6) set out how charges incurred by the Distribution Network Service Provider for transmission use of system services are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those charges in the previous regulatory year; (and sub-clause (6A) mirrors this for jurisdictional scheme amounts)	(6) Section 3.3 provides an explanation of how TUOS charges are passed on to customers, and ActewAGL Distribution's adjustment for under recovery of TUOS costs in 2015/16. TUOS charges are provided in Table 3-7. Section 3.4 addresses the requirements for jurisdictional scheme amounts.
	(7) demonstrate compliance with the Rules and any applicable distribution determination; and	(7) Table A1.2 below provides the checklist for relevant requirements from the Final Decision.
	(8) describe the nature and extent of change from the previous regulatory year and demonstrate that the changes comply with the Rules and any applicable distribution determination.	(8) Sections 3.6 and 4.3 contain descriptions of the nature and extent of changes from the 2014/15 regulatory year. Table 3.3 demonstrates that revenue from 2015/16 prices matches allowable revenue calculated in section 3.1 and shown in Table 3.2.
6.18.3	(a) A pricing proposal must define the tariff classes into which customers for direct control services are divided.	(a) Section 2.1 provides an explanation of the tariff classes for standard control services. Section 4.1 provides an explanation of the categories of charges for alternative control services.

	(b) Each customer for direct control services must be a member of 1 or more tariff classes. (c) Separate tariff classes must be constituted for customers to whom standard control services are supplied and customers to whom alternative control services are supplied (but a customer for both standard control services and alternative control services may be a member of 2 or more tariff classes). (d) A tariff class must be constituted with regard to: (i) the need to group customers together on an economically efficient basis; and (ii) the need to avoid unnecessary transaction costs.	(b) Each customer is on one or more tariffs within one or more tariff classes for which qualify (c) Separate tariff classes and charges are specified for standard control services in Table 3-4 and alternative control services in Table 4.2. (d) Section 2.1 contains an explanation of the basis of the tariff classes.
6.18.4	(a) In formulating provisions of a distribution determination governing the assignment of customers to tariff classes or the re-assignment of customers from one tariff class to another, the AER must have regard to the following principles: (1) customers should be assigned to tariff classes on the basis of one or more of the following factors: (i) the nature and extent of their usage; (ii) the nature of their connection to the network; (iii) whether remotely-read interval metering or other similar metering technology has been installed at the customer's premises as a result of a regulatory obligation or requirement; (2) customers with a similar connection and usage profile should be treated on an equal basis; (3) however, customers with micro-generation facilities should be treated no less favourably than customers without such facilities but with a similar load profile; (4) a Distribution Network Service Provider's decision to assign a customer to a particular tariff class, or to re-assign a customer from one tariff class to another should be subject to an effective system of assessment and review.	(a) Appedix C of Attachment 14 of the AER's Final Decision for ActewAGL specifies new procedures for assigning customers to tariff classes and tariffs. Section 6.3 contains an explanation of ActewAGL Distribution's procedures.
6.18.5	(a) For each tariff class, the revenue expected to be recovered should lie on or between: (1) an upper bound representing the stand alone cost of serving the customers who belong to that class; and (2) a lower bound representing the avoidable cost of not serving those customers. (b) A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class: (1) must take into account the long run marginal cost for the service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates; and (2) must be determined having regard to: (i) transaction costs associated with the tariff or each charging parameter; and (ii) whether customers of the relevant tariff class are able or	(a) Table 2.4 shows that the revenue expected from each tariff class lies between the stand alone cost and the avoidable cost for the tariff class. Section 2.3 contains an explanation of the basis and application of the principle. (b) Section 2.3 contains explanations of how ActewAGL Distribution takes into account long run marginal costs, transactions costs, the scope for customers to respond to price signals and the need to recover revenue in an efficient manner (as required by (c) below).

	likely to respond to price signals. (c) If, however, as a result of the operation of paragraph (b), the Distribution Network Service Provider may not recover the expected revenue, the provider must adjust its tariffs so as to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption.	(c) Section 2.3 contains explanations of how the need to recover revenue with minimum distortion to efficient patterns of consumption is taken into account when setting charging parameters.
6.18.6	(a) This clause applies only to *tariff classes* related to the provision of *standard control services*. (b) The expected weighted average revenue to be raised from a *tariff class* for a particular *regulatory year* of a *regulatory control period* must not exceed the corresponding expected weighted average revenue for the preceding *regulatory year* by more than the permissible percentage. (c) The permissible percentage is the greater of the following: (1) the CPI-X limitation on any increase in the *Distribution Network Service Provider*'s expected weighted average revenue between the two *regulatory year*s plus 2%; Note: The calculation is of the form (1 + CPI)(1 – X)(1 + 2%) (2) CPI plus 2%. Note: The calculation is of the form (1 + CPI)(1 + 2%) (d) In deciding whether the permissible percentage has been exceeded in a particular regulatory year, the following are to be disregarded: (1) the recovery of revenue to accommodate a variation to the distribution determination under rule 6.6 or 6.13; (2) the recovery of revenue to accommodate pass through of charges for transmission use of system services to customers. (e) This clause does not, however, limit the extent a tariff for customers with remotely-read interval metering or other similar metering technology may vary according to the time or other circumstances of the customer's usage.	2015/16 is the first year of the regulatory period (in accordance with clause 11.56.4(g)), so side constraints do not apply. See ActewAGL Distribution's May 2014 Subsequent Regulatory Proposal (p. 310) for an explanation of the relevant Rules.
6.18.7	(a) A pricing proposal must provide for tariffs designed to pass on to retail customers the designated pricing proposal charges to be incurred by the Distribution Network Service Provider for transmission use of system services. (b) The amount to be passed on to retail customers for a particular regulatory year must not exceed the estimated amount of the designated pricing proposal charges adjusted for over or under recovery in accordance with paragraph (c). (c) The over and under recovery amount must be calculated in a way that: (1) subject to subparagraphs (2) and (3) below, is consistent with the method determined by the AER in the relevant distribution determination for the Distribution Network Service Provider; (2) ensures a Distribution Network Service Provider is able to recover from retail customers no more and no less than the designated pricing proposal charges it incurs; and	Section 3.4 provides an explanation of how TUOS charges are passed on to customers, and ActewAGL Distribution's adjustment for under recovery of TUOS costs in 2014/15. The over and under recovery is shown in Table 3-6. TUOS charges are provided in Table 3.7.

	(3) adjusts for an appropriate cost of capital that is consistent with the allowed rate of return used in the relevant distribution determination for the relevant regulatory year. (d) Notwithstanding anything else in this clause 6.18.7, a Distribution Network Service Provider may not recover charges under this clause to the extent these are: (1) recovered through the Distribution Network Service Provider's annual revenue requirement; (2) recovered under clause 6.18.7A; or (3) recovered from another Distribution Network Service Provider.	

Table A1.2: Checklist of requirements from the AER's Final Decision

Final Decision requirement	***Coverage in this document***
Control mechanisms The relevant control mechanism and formulae for standard control services is as set out in Attachment 14 of the Final Decision. The AER determines to apply an average revenue cap to standard control services with a basis of CPI-X form to standard control services for the transitional regulatory control period. (p. 14.13)	Table 3.1 shows that the X factor applied to the calculation of MAAR for standard control services is -19.59 per cent, and the control mechanism has been applied as required by the Final Decision.
The AER has applied a price cap for alternative control services. For fee based services it has applied a CPI – X factor control mechanism with an X factor of zero in the first year. (p16.8) For annual metering services, the AER has determined fixed charges for each year of the regulatory period (p16.61) which are to be inflated by CPI, except for 2015/16 (p16.26).	Chapter 4 demonstrates that an X factor of 0.0% has been applied in calculating the price caps for fee based alternative control services. This complies with the AER's Final Decision. Also, annual metering service charges have not been escalated by CPI but are converted to a daily charge.
Compliance with the standard control services control mechanism. ActewAGL's average revenues for standard control services must be consistent with the AARC formula in Attachment 14 of the Final Decision, (p14.13).	Section 3.2 explains how the prices are compliant with the AER's Final Decision.
Reporting on recovery of jurisdictional scheme amounts Attachment 14, Appendix B,	Section 3.4