

# ActewAGL Distribution 2014/15 Network Pricing Proposal

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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. No changes are proposed to the types of tariffs offered or the structure of the tariffs for 2014/15.

The proposed tariffs and charges are set in accordance with the relevant requirements in the National Electricity Rules (Rules) and the AER's *Placeholder Determination for ActewAGL for 2014/15* (Placeholder Determination). This determination, made under transitional provisions in the Rules, sets the allowed change in average prices for ActewAGL Distribution's distribution network services (CPI minus the X factor of 19.59 per cent) and specifies that the prices for metering services and ancillary services must be the 2013/14 prices escalated by CPI.

Under the Placeholder Determination, costs associated with ACT jurisdictional schemes<sup>1</sup> which were previously recovered through distribution network use of system (DUOS) charges are to be recovered separately in network use of system charges (NUOS). In addition, the costs associated with ActewAGL Distribution's assets that support TransGrid's transmission service to Cooma have been removed from distribution charges and are to be recovered in transmission use of system (TUOS) charges.

The proposed DUOS charges for 2014/15 are 1.13 cents per kWh, or 17.5 per cent in nominal terms, lower on average than the DUOS charges for 2013/14. TUOS charges, levied on ActewAGL Distribution by TransGrid, are 0.86 cents per kWh, or 64.2 per cent in nominal terms, higher on average than the charges for 2013/14. The new separate charge for jurisdictional schemes will average 0.98 cents per kWh. This is 24.4 per cent (in nominal terms) higher than the jurisdictional scheme amounts in 2013/14, largely due to the commencement of the large scale feed-in tariff scheme and offset by the refund of feed-in tariff revenue estimated to be over-collected in 2013/14.

The proposed network use of system (NUOS) charges (comprising DUOS, TUOS and charges for jurisdictional schemes) and metering for 2014/15 are, as a result, on average 0.73 c/kWh, or 9.0 per cent in nominal terms, higher than the average NUOS plus metering charges for 2013/14. Charges for ancillary network services and metering services for 2014/15 average about 2.9 per cent higher than the 2013/14 charges.

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<sup>&</sup>lt;sup>1</sup> The ACT jurisdictional schemes are: the feed-in tariff scheme (including the new scheme for large customers), the Utilities Network Facilities Tax (UNFT) and the Energy Industry Levy (EIL).



ActewAGL Distribution estimates that the proposed 2014/15 network and metering charges will raise the electricity network bill for an average residential customer, consuming 7000 kWh on the residential basic network charge, by \$1.01 per week (including GST)—a real increase of 4.6 per cent (7.7 per cent nominal). For a commercial customer consuming 30 MWh per annum on the general network charge, the proposed network and metering price increases would raise the electricity network bill by \$5.98 per week (including GST)— implying a 5.0 per cent real change in prices (8.1 per cent nominal increase).



# 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*). It provides the required information on the tariffs and charges to apply to ActewAGL Distribution's regulated distribution services from 1 July 2014 to 30 June 2015. 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) *Placeholder Determination for ActewAGL for 2014/15* (Placeholder Determination). 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 all manually read meters for consumers with loads less than 160 MWh per annum, 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 60 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 Placeholder Determination, 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. Reviews by the AEMC (*Power of Choice*) and the Productivity Commission (*Electricity Networks Regulatory Frameworks*), both of which ActewAGL Distribution participated in, and the AER's *Consumer engagement guidelines* all highlight the importance of customer engagement in relation to network tariffs.

### 1.2 Background

The AER is responsible for the economic regulation of distribution services provided by ActewAGL Distribution. The AER has determined the maximum allowed average revenue (MAAR) for ActewAGL Distribution's standard control services and the price caps for alternative control (ancillary network services and metering) services for the 2014/15



transitional regulatory year.<sup>2</sup> The AER has set the X factor for standard control services for 2014/15 at 19.59 per cent.<sup>3</sup> Prices for ancillary services and metering services are to be escalated by CPI.

This document should be read in conjunction with the AER's Placeholder Determination and ActewAGL Distribution's transitional regulatory proposal (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 prices. Expenditure on asset renewal and replacement expenditure will increase in the transitional regulatory period as ActewAGL Distribution extends its asset replacement focus to include underground cables, which in many cases have reached the end of their useful life, or where asset replacement has become a viable alternative to repairing cables on a piecemeal basis. Suburban pole replacement will continue to be a significant driver of capital expenditure outcomes in the 2014-19 regulatory period as ActewAGL Distribution continues the pole replacement program that was approved by the AER in 2009.

When comparing allowed distribution revenues and prices in 2013/14 and 2014/15, it is important to correctly take account of changes in the treatment of jurisdictional scheme costs and costs associated with ActewAGL Distribution's dual function assets. These amounts were included in the AER approved average revenue for each year of the 2009-14 regulatory period, but have been removed and treated separately for 2014/15, in accordance with the AER's Placeholder Determination.

#### 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 maximum allowed average revenue and a set of high level pricing principles to a full schedule of tariffs and charges for 2014/15.

The proposed network tariffs and charges for ActewAGL Distribution's standard control services for 2014/15 are presented in chapter 3. The chapter includes discussion of the changes relative to 2013/14.

The structure and basis of ActewAGL Distribution's charges for alternative control (ancillary network services and metering) services, the proposed charges for 2014/15 and the changes relative to 2013/14 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.

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<sup>&</sup>lt;sup>2</sup> AER 2014, ActewAGL Placeholder determination for the transitional regulatory control period 2014-15.

<sup>&</sup>lt;sup>3</sup> AER 2014, AER transitional distribution decision for ACT and New South Wales DNSPs, 2014/15, p. 32



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

The Rules (clause 6.18.2) require a description of the tariff classes<sup>4</sup> and tariffs that are to apply in 2014/15. For each tariff within a tariff class, the charging parameters<sup>5</sup> 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's 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. 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;
- 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

<sup>&</sup>lt;sup>4</sup> 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".

Charging parameters are defined as "the constituent elements of a tariff" in chapter 10 of the National Electricity Rules.



- 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 associated with the costs of the provision and use of connection assets for each tariff class, as well as customer related costs such as network call centre costs.

Energy charges relate to the distribution services provided to customers. They are linked to the costs of the provision and use of distribution assets (other than connection assets), and also recover most of the common services costs. Higher energy rates at peak periods reflect higher costs. 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 relate to the capacity provided to meet maximum demand and 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 <sup>6</sup>	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) with a meter able to be read as a time-of-use meter and to electric vehicle recharge facilities on residential premises.  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)		
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 network	Energy at controlled times, ie between 10 pm and 7 am (c/kWh)	The off-peak (1) night charge is 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. It is not available where the customer's meter is read as an interval meter. The off-peak (1) night charge is applicable to permanent heat (or cold) storage; electric vehicle	

 $<sup>^{\</sup>rm 6}$  All times for metering are Eastern Standard Time.



Tariff	Charging parameters	Explanation
		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 not available where the customer's meter is read as an interval meter. 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 <i>Electricity Feed-in (Renewable Energy Premium) Act 2008</i> (ACT). Net metering applies to new PV installations since July 2013.

### 2.1.2 Network tariffs for low voltage commercial customers

ActewAGL Distribution sets different tariffs for commercial low voltage (LV) and commercial 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<sup>7</sup> 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 can move to the demand charges and lower their network costs if they have a sufficiently large load (for the cost savings to offset the higher cost of interval metering) and a reasonable load profile.

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<sup>&</sup>lt;sup>7</sup> The load factor is the ratio of average load to peak load.



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 and irrigators.  The energy charges relate to supply of network services at different times.	
LV TOU kVA demand network  LV TOU capacity 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)  Network access charge (c/day/connection point)  Maximum demand (in billing period)	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.  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	
Streetlighting	(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) Network access charge (c/day/customer)	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.  This tariff applies to the night-time lighting of streets and publications.	
Streetilgriting	Energy at any time (c/kWh)	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.	

<sup>\*</sup> 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.



# 2.1.3 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 could 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).

<sup>\*</sup> 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 Placeholder Determination. 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 further 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 53 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, nearly 80 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.

In the 2012 *Power of Choice* Final Report, the AEMC recommended "a gradual phase-in of efficient and flexible retail pricing options for residential and small business consumers through the introduction of cost reflective electricity distribution network pricing structures". ActewAGL Distribution supports the gradual introduction of efficient and flexible tariff options, and has been implementing these in recent years. However, ActewAGL Distribution does not

<sup>&</sup>lt;sup>8</sup> AEMC 2012, Power of choice review: giving consumers options in the way they use electricity, Final Report, recommendation 14, p. ii



support the AEMC's proposed approach to the phase-in, which would involve a shift away from the current approach of setting TOU tariffs as the default for all new customers.<sup>9</sup>

The application of maximum demand and capacity charges in several commercial tariff options has further strengthened price signals to customers, provided incentives to use the network more efficiently and resulted in significant customer response. 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 2012/13, customers on the *Low voltage demand* network tariff improved their load factor and therefore their utilisation of the network by 11.4 per cent, increasing the average energy consumed relative to the average of their monthly maximum demand from 40.1 per cent to 44.7 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 59.3 per cent, an improvement of 9.4 per cent.

These price signals have been effective demand management tools and have allowed ActewAGL Distribution to keep network augmentation costs to a minimum. For example, until the 2009-14 regulatory period, no new zone substations had been built in the ACT since 1994.

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 appropriately priced. ActewAGL Distribution is able to offer a suite of commercial tariffs and be indifferent to customers' choices between them.

The 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.

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<sup>&</sup>lt;sup>9</sup> The AEMC's recommended phase-in involves: mandatory "flexible pricing" for "large load customers"; opt-out (ie transition to flexible network tariffs with option to revert to flat tariffs) for "medium to large load customers"; and opt-in (ie option to adopt flexible tariffs) for "small to medium load customers". See AEMC 2012, op cit, p. 162



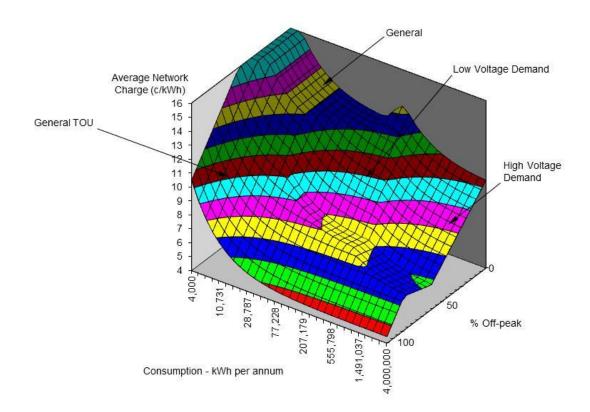


Figure 2.1 Average network charges for commercial customers

# 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. <sup>10</sup> 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 *between 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). 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. At times when demand is at or near full network capacity, prices should signal the costs of expanding capacity rather than the short run marginal costs which do not include capital related costs. In addition, ActewAGL Distribution applies charges

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<sup>&</sup>lt;sup>10</sup> 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

<sup>&</sup>lt;sup>11</sup> NERA 2006, Distribution Pricing Rule Framework, December, p. 22



to developers for new connections to signal the cost of providing upstream capacity for new developments.

ActewAGL Distribution's capacity and maximum demand charges provide signals to commercial customers about the cost of capacity expansion 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 expanding capacity and, therefore, encourage consumers to shift their load to off-peak periods. The residential time-of-use tariff is now 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.

#### 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 2014/15 DUOS revenue for each tariff class lies within the lower 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 2014/15 (\$'000)

Tariff class	Avoidable cost ('000)	DUOS charges ('000)	Stand alone cost ('000)
Residential	\$9,284	\$60,410	\$153,706
Commercial low voltage	\$1,172	\$84,025	\$145,593
High voltage	\$44	\$10,487	\$144,465
Total		\$154,921	

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'. 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. 13

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 (\$2010)
Low voltage residential	239.57
Low voltage commercial	29.76
Low voltage shared	4.74
High voltage	113.91

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:

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<sup>&</sup>lt;sup>12</sup> 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.

13 NERA 2010, Analysis of ActewAGL's Electricity Distribution Services Costs, A report for ActewAGL, commercial-in-

confidence, April, p. 11



- 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 (\$2010)
Residential	367.06
Commercial low voltage	157.25
High voltage	113.91

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 subdivisions. 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 new areas.<sup>14</sup>

The unique circumstances in the 2009-14 regulatory period, involving a significant increase in ActewAGL Distribution's forecast total capital augmentation 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.

# 2.4 The price setting process

The process of moving from the maximum allowed average revenue (MAAR) 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 Placeholder Determination, as described in section 2.4.1 below.
- 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, to determine the total charges (DUOS + TUOS + JS) to apply for each tariff class. The process of allocating TUOS charges and jurisdictional scheme costs is described in section 2.4.4 below.

# 2.4.1 Revenue to be recovered through DUOS charges

In accordance with the AER's Placeholder Determination, the maximum allowed average revenue for 2014/15 (in c/kWh) is converted to a total allowed revenue for 2014/15 by multiplying by 2012/13 throughput (in kWh). Approved cost pass-throughs (positive or negative) are then added to this allowed revenue. The resulting value is the total maximum amount to be recovered through DUOS charges.

The relevant values for each of these components and the calculation of the DOUS cap for 2014/15 are provided in chapter 3 of this document.

<sup>&</sup>lt;sup>14</sup> NERA 2010, Analysis of ActewAGL's Electricity Distribution Services Costs, A report for ActewAGL, commercial-inconfidence, April, p. 20



#### 2.4.2 Allocation to cost pools

The total amount to be recovered in 2014/15 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). 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 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.

<sup>&</sup>lt;sup>15</sup> 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

Approximately 50 per cent of TransGrid's TUOS charges to the ACT for 2014/15 (which also recover the cost of ActewAGL Distribution's transmission services) are on a postage stamp basis. TransGrid's transmission charges comprise a fixed charge, an energy charge (with general and common service components) and a monthly maximum demand charge. ActewAGL Distribution aims to preserve the cost reflective component of the transmission charge in its network energy charges or its demand and capacity charges (where possible) thereby ensuring that it is allocated according to customers' utilisation of the transmission network. The transmission energy charges are also allocated to network energy charges. For commercial tariffs that include a maximum demand charge, the demand component of the transmission charge is allocated to the maximum demand charge. In all other cases TransGrid's maximum demand charge is allocated to the network energy 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.



# 3 Network tariffs for 2014/15

# 3.1 The average revenue cap for standard control services

**3.1.1** Base maximum allowable average revenue for standard control services ActewAGL Distribution's standard control services prices are regulated using a maximum allowable average revenue (MAAR) cap. To calculate the maximum allowable average revenue for 2014/15, the following formula is used, as required by the AER's Stage 1 Framework and approach paper. <sup>16</sup>

The maximum average revenue for 2013/14 calculated according to the AER's price determination for that year is \$0.06435 per kWh. For 2014/15 the X factor is 19.59 per cent as determined in the AER's Placeholder Determination. The CPI of 2.93 per cent is applied to the allowed average revenue (AAR) for 2013/14 to obtain the allowed average revenue in 2014/15. The calculations of the AAR are shown in Table 3.1.

Table 3-1 Calculation of the Allowable Average Revenue 2014/15

	AAR previous year	X Factor	CPI indices	CPI	AAR
Mar-13			102.4		\$0.06435
Mar-14	\$0.06435	19.59%	105.4	2.93%	\$0.05326

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<sup>17</sup>. Neither is the AAR figures rounded.

The AAR is applied to the actual energy transported in the previous financial year to establish a price cap for the following financial year. Therefore, the prices for 2014/15 are based upon energy transported in 2012/13. The actual energy transported in the 2012/13 financial year was 2,910,262,122 kWh. When this is applied to the AAR for 2014/15 of \$0.05326 per kWh, it results in the revenue cap for standard control services delivered in 2012/13 of \$155,007,681. There are no other adjustments to prices in 2014/15. Therefore, the AAR is the maximum allowable average revenue (MAAR)<sup>18</sup> that is used to determine the regulated revenue cap for calculating 2014/15 prices. If the MAAR were applied to the forecast load for 2014/15 of 2,736,688,309 kWh, the revenue cap for setting prices would have been \$145,762,715. To avoid the need to forecast a load profile for that year, a recent actual load profile is used, that being for the 2012/13 financial year.<sup>19</sup>

<sup>18</sup> AER 2013, Stage 1 Framework and approach paper, ActewAGL, March, p. 38.

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<sup>&</sup>lt;sup>16</sup> AER 2013, Stage 1 Framework and approach paper, ActewAGL, March, p. 38.

<sup>&</sup>lt;sup>17</sup> NER Chapter 10, Glossary

<sup>&</sup>lt;sup>19</sup> Consistent with the AER's formulae in the Stage 1 Framework and Approach paper, p. 38



#### 3.1.2 Calculation of the revenue cap for DUOS

The calculation of the revenue to be recovered from 2014/15 distribution use of system (DUOS) charges is shown in Table 3-2.

Table 3-2 Calculation of the revenue cap for DUOS 2014/15

Allowable average revenue (\$/kWh	n)	Α	\$0.05326
Energy sales ACT (kWh)	2012/13	В	2,910,262,122
Allowable revenue cap for standard	d control services	$C = A \times B$	\$155,007,681

<sup>\*</sup> The MAAR 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 2014/15 are shown in Table 3-3. These would have recovered \$155,007,678 on the actual customer, demand and energy quantities recorded in the 2012/13 financial year. The table shows the tariff classes that are to apply in 2014/15 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 2014/15 notional revenue numbers shown in the table are the proposed charges multiplied by the relevant quantities for the previous financial year (2012/13).

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 MAAR for the pricing year.<sup>20</sup>

The sum of DUOS charges is divided by the 2012/13 financial year energy transported in the ACT of 2,910,262,122 kWh, it results in an average price of \$0.05326 per kWh. As this average price is equal to the MAAR, the prices comply with the AER's Placeholder Determination.

Table 3-3 Distribution use of system charges 2014/15

	Tariff Class & Code Tariff & Element of Service	Units	2012/13 kWh /Cust No. / kVA	2014/15 Proposed Charges	2014/15 Notional Revenue
Residen	itial tariffs				
10	Residential Basic Network				
	Network access	c/day/customer	130,035	23.16	\$10,992,356
	Energy at any time	c/kWh	915,430,452	4.4333	\$40,583,778
15	Residential TOU Network				
	Network access	c/day/customer	9,906	23.16	\$837,378
	Energy at max times	c/kWh	13,139,446	7.8719	\$1,034,324
	Energy at mid times	c/kWh	18,745,601	4.8418	\$907,625

<sup>&</sup>lt;sup>20</sup> In the Placeholder Determination (p. 3) the AER says that the manner of demonstrating compliance must be as specified in the Stage 1 Framework and Approach Paper. In that paper the AER specified the formulae for the standard control services control mechanism. ActewAGL Distribution's approach is consistent with the formulae.

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	Energy at economy times	c/kWh	13,328,224	3.3016	\$440,045
20	Residential 5000 Network	a/day/ayatamar	0.040	44.00	¢4 000 500
	Network access Energy for the first 60 kWh per day	c/day/customer c/kWh	8,212 40,779,919	44.36 2.9743	\$1,329,580 \$1,212,917
	Energy above 60 kWh per day	c/kWh	1,522,263	4.4333	\$67,486
30	Residential with Heat Pump Netwo	rk	1,0==,=00		<b>¥</b> 01,100
	Network access	c/day/customer	4,532	87.06	\$1,440,211
	Energy for the first 165 kWh per day	c/kWh	79,637,023	1.6313	\$1,299,119
	Energy above 165 kWh per day	c/kWh	1,037,808	4.4333	\$46,009
60	Off-Peak (1) Night Network		, ,		. ,
	Energy at controlled times	c/kWh	14,285,775	0.0981	\$14,014
70	Off-Peak (3) Day & Night Network				
	Energy at controlled times	c/kWh	87,946,158	0.2332	\$205,090
	Renewable Energy Generation				
	Gross metered energy	c/kWh	6,690,577	0.0000	\$0
COMMER	CIAL LOW VOLTAGE TARIFFS				
40	General Network				
	Network access	c/day/customer	11,875	42.67	\$1,849,535
	Energy for the first 330 kWh per day	c/kWh	265,799,572	8.3354	\$22,155,458
	Energy above 330 kWh per day	c/kWh	18,333,314	10.5674	\$1,937,355
135	Small Unmetered Loads Network				
	Network access	c/day/customer	23	37.70	\$3,165
	Energy at any time	c/kWh	1,397,857	9.1326	\$127,661
80	Streetlighting Network				
	Network access	c/day/customer	18	43.00	\$2,766
	Energy for night time lighting of streets puways & places	blic c/kWh	41,998,569	6.1861	\$2,598,073
90	General TOU Network				
90	Network access	c/day/customer	858	42.67	\$133,579
	Energy at business times	c/kWh	29,626,103	14.6319	\$4,334,862
	Energy at evening times	c/kWh	13,335,431	7.2149	\$962,138
	Energy at off-peak times	c/kWh	34,034,452	3.3352	\$1,135,117
I ow volt	age time of use demand network	5,	04,004,402	0.0002	ψ1,100,117
101	LV TOU kVA Demand Network				
	Network access	c/day/connection point	1,738	50.00	\$317,171
	Maximum demand	c/kVA/day	231,748	34.312	\$29,023,850
	Energy at business times	c/kWh	369,263,067	2.7389	\$10,113,746
	Energy at evening times	c/kWh	129,820,176	2.0849	\$2,706,621
	Energy at off-peak times	c/kWh	396,435,374	1.0232	\$4,056,327
103	LV TOU Capacity Network				
	Network access	c/day/connection point	36	50.00	\$6,572
	Maximum demand (in billing period)	c/kVA/day	9,171	19.614	\$656,559
	Capacity (maximum demand in last year)	c/kVA/day	10,855	19.614	\$777,150
	Energy at business times	c/kWh	16,982,190	3.7959	\$644,627
	Energy at evening times	c/kWh	7,039,463	2.7309	\$192,241
	Energy at off-peak times	c/kWh	23,862,107	1.2152	\$289,972
HIGH VO	LTAGE TARIFFS				
_	tage time of use demand network w	ith ActewAGL low vo	ltage network		
111	HV TOU Demand Network				
	Network access	\$/day/connection point	1	19.00	\$8,094
	Maximum demand (in billing period)	c/kVA/day	1,639	11.858	\$70,939
	Capacity (maximum demand in last year)	c/kVA/day	1,760	11.858	\$76,195



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	Total Energy Consumption		2,910,262,122		
	Total Customers		167,256		
	Total				\$155,007,678
	Energy at off-peak times	c/kWh	585,379	0.6987	\$4,090
	Energy at evening times	c/kWh	189,740	1.4359	\$2,724
	Energy at business times	c/kWh	532.882	2.3913	\$12,743
	Capacity (maximum demand in last year)	c/kVA/day	606	14.639	\$32,392
	Maximum demand (in billing period)	c/kVA/day	593	14.639	\$31,698
122	Network access	\$/day/connection point	0	19.00	\$2.584
122	HV TOU Demand Network – Custo		171,732,203	0.3377	Φ01 <del>4</del> ,200
	Energy at evening times Energy at off-peak times	c/kWh	52,361,817 171,732,205	0.8829 0.3577	\$462,302 \$614,286
	Energy at business times	c/kWh c/kWh	136,924,542	1.6703	\$2,287,051
	Capacity (maximum demand in last year)	c/kVA/day	84,758	11.978	\$3,705,578
	Maximum demand (in billing period)	c/kVA/day	68,989	11.978	\$3,016,163
	Network access	\$/day/connection point	23	19.00	\$157,463
121	HV TOU Demand Network - Custo	mer LV	-		
High vo	Itage time of use demand network w	rithout ActewAGL lo	w voltage network		
	Energy at off-peak times	c/kWh	0	0.4927	\$0
	Energy at evening times	c/kWh	0	1.2209	\$0
	Energy at business times	c/kWh	0	2.0493	\$0
	Capacity (maximum demand in last year)	c/kVA/day	0	10.958	\$0
	Maximum demand (in billing period)	c/kVA/day	0	10.958	\$0
	Network access	\$/day/connection point	0	19.00	\$0
112	HV TOU Demand Network - Custo	mer HV			
	Energy at off-peak times	c/kWh	3,495,874	0.4927	\$17,224
	Energy at evening times	c/kWh	1,165,505	1.2209	\$14,230
	Energy at business times	c/kWh	2,803,257	2.0493	\$57,447

# 3.2.1 Weighted average prices

Table 3.4 sets out for each tariff class related to standard control services the expected weighted average DUOS revenue<sup>21</sup> for the regulatory year and the current year, as required by clause 6.18.2(b)(4) of the Rules.

Table 3-4 Weighted average DUOS revenue by tariff class

DUOS Weighted Average Revenue c/kWh

Tariff Class	2013/14	2014/15	Change	Change
	(c/kWh)	(c/kWh)	c/kWh	%
Residential Tariffs	6.08	5.07	-1.02	-16.7%
Commercial Low Voltage	7.40	6.23	-1.17	-15.8%
High Voltage	4.20	2.86	-1.34	-31.9%
Average	6.45	5.33	-1.13	-17.5%

2014/15 Network Pricing Proposal



# 3.3 Transmission use of system charges

The AER separately regulates transmission use of system (TUOS) charges. TUOS charges are not part of ActewAGL Distribution's regulated revenue requirement. 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 Placeholder Determination, 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 in same manner as during the current regulatory period. This format is set out in Table E.1 of the Final Distribution Determination for 2009-1414. Table 3-5 provides the required information.

Table 3-5 TUOS overs and unders account (\$'000)

	2012/13 Actual	2013/14 Estimate	2014/15 Forecast
Revenue from TUOS charges	45,979	37,297	60,518
Transmission charges to be paid to TNSPs	43,039	43,010	59,913
Avoided TUOS payments Inter-DNSP payments	0	2	14 0
Total transmission related payments	43,039	43,012	59,927
Over (under) recovery for the financial year	2,940	-5,714	591
Overs and unders account			
Annual rate of interest applicable to balances	8.79%	8.79%	8.06%
Semi-annual interest rate	4.30%	4.30%	3.95%
Opening Balance	1,737	4,956	-568
Interest on opening balance	153	436	-46
Over/under recovery for financial year	2,940	-5,714	591
Interest on over/under recovery	126	-246	23
Closing balance	4,956	-568	0

The forecast revenue requirement from TUOS charges for 2014/15 shown in Table 3-5 is \$60,518,105: an increase of 62.3 per cent compared to forecast TUOS revenue for 2013/14.



This amount has been calculated on the basis of TransGrid's estimate of the increase in transmission charges for 2014/15.

ActewAGL Distribution has forecast TUOS costs would be \$59,913,093 in 2014/15, an increase of 39.3 per cent, reflecting the inclusion of cost of ActewAGL Distribution's dual function assets in its transmission charges as well as a return to normal charges after the refund of the over-recovery of earlier years. ActewAGL Distribution recovers TransGrid's 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 2012/13 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 2014/15 is forecast to be about 5.96 per cent lower<sup>22</sup> than the actual energy transported in the 2012/13 financial year, the amount of TUOS to be recovered in prices using the load in 2012/13 has been adjusted upward to take account of that difference.<sup>23</sup> The TUOS prices would have recovered revenue of \$64,356,444 under the 2012/13 profile as shown in Table 3-6.

Table 3-6 Transmission use of system charges 2014/15

		KWh/ Cust. No./KVA	Proposed Price	Notional TUOS
Description	Unit	2012/13	2014/15	Revenue
RESIDENTIAL TARIFFS				
10 Residential Basic Net	work			
Network access charge	cents/day	130,035	0.000	\$0
Energy consumption	cents/kWh	915,430,452	2.199	\$20,130,316
15 Residential TOU Network	•			
Network access charge	cents/day	9,906	0.000	\$0
Energy at max times	cents/kWh	13,139,446	1.218	\$160,038
Energy at mid times	cents/kWh	18,745,601	0.958	\$179,583
Energy at economy times	cents/kWh	13,328,224	0.725	\$96,630
20 Residential 5000 Network	k			
Network access charge	cents/day	8,212	0.000	\$0
Energy for the first 60 kWh per day	cents/kWh	40,779,919	2.138	\$871,875
Energy above 60 kWh per day	cents/kWh	1,522,263	2.199	\$33,475
30 Residential with Heat Pu	mp Network			
Network access charge	cents/day	4,532	0.000	\$0
Energy for the first 165 kWh per day	cents/kWh	79,637,023	2.031	\$1,617,428
Energy above 165 kWh per day	cents/kWh	1,037,808	2.199	\$22,821
60 Off-Peak (1) Night Netwo	rk			
Energy consumption	cents/kWh	14,285,775	1.592	\$227,430

<sup>&</sup>lt;sup>22</sup> This uses the forecast in the AER's Placeholder Determination.

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<sup>&</sup>lt;sup>23</sup> AER, Final decision, Control mechanisms for direct control services for the ACT and NSW 2009 distribution determinations, February 2008, part 5.8.



Energy consumption	cents/kWh	87,946,158	2.000	\$1,758,92
Renewable Energy Genera	tion			
Gross metered energy	cents/kWh	6,690,577	0.000	\$
COMMERCIAL LOW VOLTAG	E TARIFFS			
0 General Network				
Network access charge	cents/day	11,875	0.000	\$
Energy for the first 330 kWh	cents/kWh	265,799,572	2.474	\$6,575,88
Energy above 330 kWh per lay	cents/kWh	18,333,314	3.423	\$627,54
35 Small Unmetered Load				
Network access charge	cents/day	23	0.000	\$
Energy consumption	cents/kWh	1,397,857	1.9917	\$27,84
30 Streetlighting Network				
letwork access charge	cents/day	18	0.000	\$
Energy consumption	cents/kWh	41,998,569	0.974	\$409,06
00 General TOU Network				
letwork access charge	cents/day	858	0.000	\$
Energy at business times	cents/kWh	29,626,103	2.116	\$626,88
Energy at evening times	cents/kWh	13,335,431	1.165	\$155,35
Energy at off-peak times	cents/kWh	34,034,452	0.229	\$77,93
Low voltage time of use 01 LV TOU kVA Demand □		vork		
letwork access per	cents/day	1,738	0.000	9
onnection point Maximum demand charge	c/KVA/day	231,748	14.288	\$12,085,94
Energy at business times	cents/kWh	369,263,067	1.999	\$7,381,56
Energy at evening times	cents/kWh	129,820,176	1.205	\$1,564,33
nergy at off-peak times	cents/kWh	396,435,374	0.341	\$1,351,84
03 LV TOU Capacity Netw	ork			
letwork access per onnection point	cents/day	36	0.000	*
Maximum demand charge	c/KVA/day	9,171	3.086	\$103,30
Capacity charge	c/KVA/day	10,855	3.086	\$122,27
nergy at business times	cents/kWh	16,982,190	0.942	\$159,97
nergy at evening times	cents/kWh	7,039,463	0.559	\$39,35
nergy at off-peak times	cents/kWh	23,862,107	0.149	\$35,55
IGH VOLTAGE TARIFFS				
ligh voltage time of use network 11 HV TOU Demand Netw		work with Actew	AGL low vo	ltage
letwork access per	\$/day	1	0.000	9
onnection point  Maximum demand charge	c/KVA/day	1,639	7.242	\$43,32
Capacity charge	c/KVA/day	1,760	7.242	\$46,53
Energy at business times	cents/kWh	2,803,257	1.464	\$41,04
Energy at evening times	cents/kWh	1,165,505	1.118	\$13,03
Energy at off-peak times	cents/kWh	3,495,874	0.687	\$24,01
12 HV TOU Demand Netw	ork – Custome			. ,
letwork access per connection point	\$/day	0	0.000	(
Maximum demand charge	c/KVA/day	0	7.242	Ç
	c/KVA/day	0	7.242	Ç



Energy at business times	cents/kWh	0	1.464	\$0
Energy at evening times	cents/kWh	0	1.118	\$0
Energy at off-peak times	cents/kWh	0	0.687	\$0
High voltage time of us	e demand net	work without Act	tewAGL low	voltage
network				3
121 HV TOU Demand Netv	ork - Custome	r LV		
Network access per connection point	\$/day	23	0.000	\$0
Maximum demand charge	c/KVA/day	68,989	7.122	\$1,793,380
Capacity charge	c/KVA/day	84,758	7.122	\$2,203,300
Energy at business times	cents/kWh	136,924,542	1.443	\$1,975,821
Energy at evening times	cents/kWh	52,361,817	1.106	\$579,122
Energy at off-peak times	cents/kWh	171,732,205	0.682	\$1,171,214
122 HV TOU Demand Netv	ork - Custome	r HV and LV		
Network access per connection point	\$/day	0	0.000	\$0
Maximum demand charge	c/KVA/day	593	3.561	\$7,711
Capacity charge	c/KVA/day	606	3.561	\$7,880
Energy at business times	cents/kWh	532,882	0.722	\$3,847
Energy at evening times	cents/kWh	189,740	0.553	\$1,049
Energy at off-peak times	cents/kWh	585,379	0.341	\$1,996
Total				\$64,356,444

#### 3.4 Jurisdictional Schemes

The jurisdictional scheme requirements in the Rules were introduced in 2010, during the current regulatory period. These requirements designated the ACT feed-in tariff for small scale generation as a *jurisdictional scheme* under clause 6.18.7A(e)(1)(i) of the Rules. The jurisdictional scheme arrangements in the Rules also include provision for DNSPs to request the AER to determine that a scheme is a jurisdictional scheme.<sup>24</sup>

ActewAGL Distribution wrote to the AER on 6 January 2014 requesting the AER to determine that the Energy Industry Levy, the Utilities Network Facilities Tax and the Feed-in Tariff (Large Scale) are jurisdictional schemes. On 29 January 2014, the AER published its determination that each of these schemes is a jurisdictional scheme.<sup>25</sup> As a result, forecast amounts for the proposed jurisdictional schemes are not included in the indicative opex estimates for 2014-19.

Under the transitional provisions in clause 11.35.2(a) ActewAGL Distribution must comply with the jurisdictional scheme pricing proposal requirements from the date it is "required to submit a pricing proposal for the first regulatory period of the next regulatory control period." This is ActewAGL Distribution's proposal for the recovery of jurisdictional scheme amounts.

The jurisdictional schemes amounts comprise:

- The Energy Industry Levy (EIL) \$1m;
- The Utilities Network Facilities Tax (UNFT) \$5.5m;

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<sup>&</sup>lt;sup>24</sup> Rules, clause 6.18.7A(f)

<sup>&</sup>lt;sup>25</sup> AER 2014, Determination: ActewAGL Distribution's request for schemes to be determined as jurisdictional schemes, January. AER reference: 53600.



- The Feed-in Tariff (FiT) \$13.8m; and
- The Feed-in Tariff for large schemes (FiT L) \$7.9m.

In the 2009-14 regulatory period, the forecast cost of the FiT, EIL and UNFT were included in distribution charges with an adjustment made in later prices for the difference between the forecast and actual cost of the scheme. Table 3-7 shows the calculation of the nominal value of the provision in the 2009/14 Determination for the UNFT and the EIL.

Table 3-7 CPI adjustment to the provision for the FiT, UNFT and EIL

	2012–13	2013–14
	Actual	Estimate
Real Values		
FiT (provision in 2009-14 Distribution Determination) (real \$'s 2008/09)	12,727,878	15,268,192
UNFT (provision in 2009-14 Distribution Determination) (real \$'s 2008/09)	4,275,575	4,342,873
Energy Industry levy (provision in 2009-14 Determination) (real \$'s 2006/07)	484,000	484,000
CPI Adjustment for FiT & UNFT	12.90%	14.89%
CPI Adjustment for EIL	19.65%	21.75%
Nominal Values		,
FiT (provision in 2009-14 Distribution Determination)	14,370,383	17,541,916
UNFT (provision in 2009-14 Distribution Determination)	4,827,329	4,989,609
Energy Industry levy (provision in 2009-14 Determination)	579,099	589,291

These nominal values for 2012/13 and 2013/14 have been included in the jurisdictional schemes unders and overs account for 2014/15 presented in Table 3-8, together with the actual and forecast payments for those years.

Table 3-8 Jurisdictional Schemes unders and overs account

	2012/13	2013/14	2014/15
	Actual	Estimate	Forecast
	(\$'000)	(\$'000)	(\$'000)
Jurisdictional Scheme Revenue	0	0	26,972
Feed-in Tariffs (small scale)	14,370	17,542	
UNFT (provision in 2009-14 Distribution Determination)	4,827	4,990	
Energy Industry levy (provision in 2009-14 Determination)	579	589	
Total jurisdicional scheme related revenue	19,777	23,121	26,972
Feed-in Tariffs (small scale)	14,157	13,954	13,961
Feed-in Tariffs (large scale)			7,866
UNFT	5,400	5,556	5,814
Energy Industry levy	713	1,449	1,000
Total jurisdictional scheme related payments	20,269	20,959	28,641
Over (under) recovery for the financial year	-493	2,162	-1,669
Overs and unders account			
Opening Balance	0	-493	1,669
Over/under recovery for financial year	-493	2,162	-1,669
Closing balance	-493	1,669	0



The total amount to be recovered in jurisdictional scheme charges in 2014/15 is \$26,971,886 as shown in Table 3-8. However, energy sales in 2014/15 are forecast to be 5.96 per cent lower than in the 2012/13 financial year (used to set prices). Therefore, the amount to be recovered using the load profile for 2012/13 has been inflated 5.96 per cent so that the charges applied in 2014/15 will recover the forecast amount. Table 3-9 presents the 2014/15 charges for jurisdictional schemes and revenues to be recovered assuming the energy consumption profile in 2013.

Table 3-9 Jurisdictional Scheme charges 2014/15

		KWh/ Cust. No./KVA	Proposed JS Prices	Notional JS
Description	Unit	2012/13	2014/15	Revenue
RESIDENTIAL TARIFFS				
10 Residential Basic Network				
Network access charge	cents/day	130,035	0.0000	\$0
Energy consumption	cents/kWh	915,430,452	1.0077	\$9,224,793
15 Residential TOU Network				
Network access charge	cents/day	9,906	0.0000	\$0
Energy at max times	cents/kWh	13,139,446	1.2501	\$164,256
Energy at mid times	cents/kWh	18,745,601	1.0002	\$187,494
Energy at economy times	cents/kWh	13,328,224	0.7534	\$100,415
20 Residential 5000 Network				
Network access charge	cents/day	8,212	0.0000	\$0
Energy for the first 60 kWh per day	cents/kWh	40,779,919	1.0077	\$410,939
Energy above 60 kWh per day	cents/kWh	1,522,263	1.0077	\$15,340
30 Residential with Heat Pump N	letwork			
Network access charge	cents/day	4,532	0.0000	\$0
Energy for the first 165 kWh per day	cents/kWh	79,637,023	1.0077	\$802,502
Energy above 165 kWh per day	cents/kWh	1,037,808	1.0077	\$10,458
60 Off-Peak (1) Night Network				
Energy consumption	cents/kWh	14,285,775	0.4999	\$71,415
70 Off-Peak (3) Day & Night Netw				<b>A-00</b> 40-
Energy consumption	cents/kWh	87,946,158	0.6668	\$586,425
Renewable Energy Generation				
Gross metered energy	cents/kWh	6,690,577	0.0000	\$0
COMMERCIAL LOW VOLTAGE TARI	FFS			
40 General Network				
Network access charge	cents/day	11,875	0.0000	\$0
Energy for the first 330 kWh per day	cents/kWh	265,799,572	1.0006	\$2,659,591
Energy above 330 kWh per day	cents/kWh	18,333,314	0.9996	\$183,260
135 Small Unmetered Loads Net	work			
Network access charge				

Network access charge

 $^{26}$  This is consistent with the approach set out in ActewAGL Distribution's Transitional Regulatory Proposal.

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Energy consumption	cents/kWh	1,397,857	1.0037	\$14,030				
80 Streetlighting Network		40	0.0000	Φ0				
Network access charge	cents/day	18	0.0000	\$0				
Energy consumption	cents/kWh	41,998,569	1.0099	\$424,144				
90 General TOU Network								
Network access charge	cents/day	858	0.0000	\$0				
Energy at business times	cents/kWh	29,626,103	1.2721	\$376,874				
Energy at evening times	cents/kWh	13,335,431	0.9501	\$126,700				
Energy at off-peak times	cents/kWh	34,034,452	0.7758	\$264,039				
Low voltage time of use demand Netwo								
Network access per connection point	cents/day	1,738	0.0000	\$0				
Maximum demand charge	c/KVA/day	231,748	0.0000	\$0				
Energy at business times	cents/kWh	369,263,067	1.2721	\$4,697,395				
Energy at evening times	cents/kWh	129,820,176	0.9501	\$1,233,421				
Energy at off-peak times	cents/kWh	396,435,374	0.7758	\$3,075,546				
103 LV TOU Capacity Network	OCTIO/KVVII	000,400,074	0.7700	φο,ονο,ο-ιο				
Network access per connection point	cents/day	36	0.0000	\$0				
Maximum demand charge	c/KVA/day	9,171	0.0000	\$0				
Capacity charge	c/KVA/day	10,855	0.0000	\$0				
Energy at business times	cents/kWh	16,982,190	1.2721	\$216,030				
Energy at evening times	cents/kWh	7,039,463	0.9501	\$66,882				
Energy at off-peak times	cents/kWh	23,862,107	0.7758	\$185,122				
HIGH VOLTAGE TARIFFS	OCTIO/IXVII	20,002,107	0.1700	Ψ100,122				
High voltage time of use dem	and network	with ActewAGI	low voltage	network				
111 HV TOU Demand Network	and network	With Actouract	- low voltage	HOLWOIK				
Network access per connection point	\$/day	1	0.0000	\$0				
Maximum demand charge	c/KVA/day	1,639	0.0000	\$0				
Capacity charge	c/KVA/day	1,760	0.0000	\$0				
Energy at business times	cents/kWh	2,803,257	1.2467	\$34,948				
Energy at evening times	cents/kWh	1,165,505	0.9311	\$10,852				
Energy at off-peak times	cents/kWh	3,495,874	0.7603	\$26,579				
112 HV TOU Demand Network -	Customer HV							
Network access per connection point	\$/day	0	0.0000	\$0				
Maximum demand charge	c/KVA/day	0	0.0000	\$0				
Capacity charge	c/KVA/day	0	0.0000	\$0				
Energy at business times	cents/kWh	0	1.2467	\$0				
Energy at evening times	cents/kWh	0	0.9311	\$0				
Energy at off-peak times	cents/kWh	0	0.7603	\$0				
High voltage time of use dem	and network	without Actew	AGL low volta	iae				
network				J				
121 HV TOU Demand Network –	Customer LV							
Network access per connection point	\$/day	23	0.0000	\$0				
Maximum demand charge	c/KVA/day	68,989	0.0000	\$0				
Capacity charge	c/KVA/day	84,758	0.0000	\$0				
Energy at business times	cents/kWh	136,924,542	1.2467	\$1,707,038				
Energy at evening times	cents/kWh	52,361,817	0.9311	\$487,541				
Energy at off-peak times	cents/kWh	171,732,205	0.7603	\$1,305,680				
<del></del>								
122 HV TOU Demand Network – Network access per connection point	Customer HV a	and LV						



Maximum demand charge	c/KVA/day	593	0.0000	\$0
Capacity charge	c/KVA/day	606	0.0000	\$0
Energy at business times	cents/kWh	532,882	1.2467	\$6,643
Energy at evening times	cents/kWh	189,740	0.9311	\$1,767
Energy at off-peak times	cents/kWh	585,379	0.7603	\$4,451
Total				\$28,682,570

## 3.5 Network use of system charges

Network use of system (NUOS) charges for 2014/15 comprise the distribution use of system (DUOS) charges, transmission use of system (TUOS) charges and jurisdictional scheme charges. The proposed NUOS charges are shown in Table 3-10. All charges exclude GST.

Table 3-10 Network use of system charges 2014/15

		Distribution Charges	Transmission Charges	Jurisdictional Charges	Network Charges		
Description	Unit	2014/15	2014/15	2014/15	2014/15		
RESIDENTIAL TARIFFS							
10 Residential Basic Netw	ork						
Network access charge	cents/day	23.1600	0.0000	0.0000	23.1600		
Energy consumption	cents/kWh	4.4333	2.1990	1.0077	7.6400		
15 Residential TOU Network							
Network access charge	cents/day	23.1600	0.0000	0.0000	23.1600		
Energy at max times	cents/kWh	7.8719	1.2180	1.2501	10.3400		
Energy at mid times	cents/kWh	4.8418	0.9580	1.0002	6.8000		
Energy at economy times	cents/kWh	3.3016	0.7250	0.7534	4.7800		
20 Residential 5000 Network							
Network access charge	cents/day	44.3600	0.0000	0.0000	44.3600		
Energy for the first 60 kWh per day	cents/kWh	2.9743	2.1380	1.0077	6.1200		
Energy above 60 kWh per day	cents/kWh	4.4333	2.1990	1.0077	7.6400		
30 Residential with Heat Pun	np Network						
Network access charge	cents/day	87.0600	0.0000	0.0000	87.0600		
Energy for the first 165 kWh per day	cents/kWh	1.6313	2.0310	1.0077	4.6700		
Energy above 165 kWh per day	cents/kWh	4.4333	2.1990	1.0077	7.6400		
60 Off-Peak (1) Night Networ	k						
Energy consumption	cents/kWh	0.0981	1.5920	0.4999	2.1900		
70 Off-Peak (3) Day & Night N	Network						
Energy consumption	cents/kWh	0.2332	2.0000	0.6668	2.9000		
Renewable Energy Generation	on						
Gross metered energy	cents/kWh	0.0000	0.0000	0.0000	0.0000		
COMMERCIAL LOW VOLTAGE 1	TARIFFS						
40 General Network							
Network access charge	cents/day	42.6700	0.0000	0.0000	42.6700		
Energy for the first 330 kWh per day	cents/kWh	8.3354	2.4740	1.0006	11.8100		
Energy above 330 kWh per day	cents/kWh	10.5674	3.4230	0.9996	14.9900		
135 Small Unmetered Loads Network							



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Network access charge	cents/day	37.7000	0.0000	0.0000	37.7000
Energy consumption	cents/kWh	9.1326	1.9917	1.0037	12.1280
80 Streetlighting Network					
Network access charge	cents/day	43.0000	0.0000	0.0000	43.0000
Energy consumption	cents/kWh	6.1861	0.9740	1.0099	8.1700
90 General TOU Network					
Network access charge	cents/day	42.6700	0.0000	0.0000	42.6700
Energy at business times	cents/kWh	14.6319	2.1160	1.2721	18.0200
Energy at evening times	cents/kWh	7.2149	1.1650	0.9501	9.3300
Energy at off-peak times	cents/kWh	3.3352	0.2290	0.7758	4.3400
Low voltage time of use of	demand				
network	- t l-				
101 LV TOU kVA Demand N		F0 0000	0.0000	0.0000	50,0000
Network access per connection point	cents/day	50.0000	0.0000	0.0000	50.0000
Maximum demand charge	c/KVA/day	34.3120	14.2880	0.0000	48.6000
Energy at business times	cents/kWh	2.7389	1.9990	1.2721	6.0100
Energy at evening times	cents/kWh	2.0849	1.2050	0.9501	4.2400
Energy at off-peak times	cents/kWh	1.0232	0.3410	0.7758	2.1400
103 LV TOU Capacity					
Network	aanta/day	F0 0000	0.0000	0.0000	50,0000
Network access per connection point	cents/day	50.0000	0.0000	0.0000	50.0000
Maximum demand charge	c/KVA/day	19.6140	3.0860	0.0000	22.7000
Capacity charge	c/KVA/day	19.6140	3.0860	0.0000	22.7000
Energy at business times	cents/kWh	3.7959	0.9420	1.2721	6.0100
Energy at evening times	cents/kWh	2.7309	0.5590	0.9501	4.2400
Energy at off-peak times	cents/kWh	1.2152	0.1490	0.7758	2.1400
HIGH VOLTAGE TARIFFS					
			A O I I	altaga natur	l -
High voltage time of use	demand netw	ork with Act	ewagl low v	onage netwo	ork
111 HV TOU Demand Netwo	rk			_	
111 HV TOU Demand Netwo Network access per connection		19.0000	0.0000	0.0000	19.0000
111 HV TOU Demand Netwo Network access per connection point	rk			_	
111 HV TOU Demand Netwo Network access per connection	<b>rk</b> \$/day	19.0000	0.0000	0.0000	19.0000
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge	<b>rk</b> \$/day c/KVA/day	19.0000 11.8580	0.0000 7.2420	0.0000	19.0000 19.1000
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge	rk \$/day c/KVA/day c/KVA/day	19.0000 11.8580 11.8580	0.0000 7.2420 7.2420	0.0000 0.0000 0.0000	19.0000 19.1000 19.1000
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times	s/day  c/KVA/day  c/KVA/day  cents/kWh	19.0000 11.8580 11.8580 2.0493	0.0000 7.2420 7.2420 1.4640	0.0000 0.0000 0.0000 1.2467	19.0000 19.1000 19.1000 4.7600
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times	s/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh	19.0000 11.8580 11.8580 2.0493 1.2209 0.4927	0.0000 7.2420 7.2420 1.4640 1.1180	0.0000 0.0000 0.0000 1.2467 0.9311	19.0000 19.1000 19.1000 4.7600 3.2700
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times	s/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh	19.0000 11.8580 11.8580 2.0493 1.2209 0.4927	0.0000 7.2420 7.2420 1.4640 1.1180	0.0000 0.0000 0.0000 1.2467 0.9311	19.0000 19.1000 19.1000 4.7600 3.2700
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times 112 HV TOU Demand Netwo Network access per connection point	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer \$/day	19.0000 11.8580 11.8580 2.0493 1.2209 0.4927 <b>HV</b> 19.0000	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times 112 HV TOU Demand Netwo Network access per connection point Maximum demand charge	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer \$/day  c/KVA/day	19.0000 11.8580 11.8580 2.0493 1.2209 0.4927 HV 19.0000 10.9580	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870 0.0000 7.2420	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times 112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day	19.0000 11.8580 11.8580 2.0493 1.2209 0.4927 <b>HV</b> 19.0000 10.9580 10.9580	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870 0.0000 7.2420 7.2420	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times 112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  10.9580  2.0493	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870 0.0000 7.2420 7.2420 1.4640	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600
111 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times 112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh	19.0000  11.8580     11.8580     2.0493     1.2209     0.4927  HV  19.0000     10.9580     10.9580     2.0493     1.2209	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870 0.0000 7.2420 7.2420 1.4640 1.1180	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at off-peak times	rk  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  10.9580  2.0493  1.2209  0.4927	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times Energy at off-peak times  High voltage time of use	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  demand netw	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  10.9580  2.0493  1.2209  0.4927  Tork without	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at off-peak times High voltage time of use 121 HV TOU Demand Netwo Network access per connection	rk \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  demand netw	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  10.9580  2.0493  1.2209  0.4927  Tork without	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  Energy at off-peak times  High voltage time of use 121 HV TOU Demand Netwo Network access per connection point	rk  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  demand netw rk - Customer  \$/day	19.0000  11.8580 11.8580 2.0493 1.2209 0.4927  HV  19.0000  10.9580 2.0493 1.2209 0.4927  rork without ALV 19.0000	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  ActewAGL lo	0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603 w voltage ne	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400 etwork
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at evening times Energy at off-peak times  High voltage time of use 121 HV TOU Demand Netwo Network access per connection point Maximum demand charge	rk \$/day  c/KVA/day c/KVA/day cents/kWh cents/kWh rk - Customer \$/day  c/KVA/day c/KVA/day cents/kWh cents/kWh demand netw rk - Customer \$/day	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  2.0493  1.2209  0.4927  rork without at the control of the control o	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  ActewAGL lo	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603 w voltage ne	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400 Ptwork 19.0000 19.1000
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at off-peak times  High voltage time of use 121 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge	rk  \$/day  c/KVA/day  c/KVA/day  cents/kWh  cents/kWh  rk - Customer  \$/day  c/KVA/day  cents/kWh  cents/kWh	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  2.0493  1.2209  0.4927  rork without  LV  19.0000  11.9780  11.9780	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  ActewAGL lo	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603 w voltage ne	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400 etwork 19.0000 19.1000 19.1000
Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times  112 HV TOU Demand Netwo Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at evening times Energy at off-peak times  High voltage time of use 121 HV TOU Demand Netwo Network access per connection point Maximum demand charge	rk \$/day  c/KVA/day c/KVA/day cents/kWh cents/kWh rk - Customer \$/day  c/KVA/day c/KVA/day cents/kWh cents/kWh demand netw rk - Customer \$/day	19.0000  11.8580  11.8580  2.0493  1.2209  0.4927  HV  19.0000  10.9580  2.0493  1.2209  0.4927  rork without at the control of the control o	0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  0.0000 7.2420 7.2420 1.4640 1.1180 0.6870  ActewAGL lo	0.0000 0.0000 0.0000 1.2467 0.9311 0.7603 0.0000 0.0000 1.2467 0.9311 0.7603 w voltage ne	19.0000 19.1000 19.1000 4.7600 3.2700 1.9400 19.0000 18.2000 4.7600 3.2700 1.9400 Ptwork 19.0000 19.1000



Energy at off-peak times	cents/kWh	0.3577	0.6820	0.7603	1.8000				
122 HV TOU Demand Network – Customer HV and LV									
Network access per connection point	\$/day	19.0000	0.0000	0.0000	19.0000				
Maximum demand charge	c/KVA/day	14.6390	3.5610	0.0000	18.2000				
Capacity charge	c/KVA/day	14.6390	3.5610	0.0000	18.2000				
Energy at business times	cents/kWh	2.3913	0.7220	1.2467	4.3600				
Energy at evening times	cents/kWh	1.4359	0.5530	0.9311	2.9200				
Energy at off-peak times	cents/kWh	0.6987	0.3410	0.7603	1.8000				

## 3.6 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 in 2014/15 with those in 2013/14. The average change in network charges is shown in cents per kWh and as a percentage for an average consumer for each tariff.<sup>27</sup>

Table 3-11 Changes in network charges

		Network Charges	Network Charges	Average Change	Average Change
Description	Unit	2013/14	2014/15	c/kWh	%
RESIDENTIAL TARIFFS					
10 Residential Basic Network				0.659	8.1%
Network access charge	cents/day	21.440	23.160		
Energy consumption	cents/kWh	7.070	7.640		
15 Residential TOU Network				0.866	10.5%
Network access charge	cents/day	21.440	23.160		
Energy at max times	cents/kWh	10.090	10.340		
Energy at mid times	cents/kWh	5.660	6.800		
Energy at economy times	cents/kWh	4.160	4.780		
20 Residential 5000 Network					
Network access charge	cents/day	42.640	44.360	0.711	8.3%
Energy for the first 60 kWh per day	cents/kWh	5.530	6.120		
Energy above 60 kWh per day	cents/kWh	7.070	7.640		
30 Residential with Heat Pump Network					
Network access charge	cents/day	85.340	87.060	0.635	10.8%
Energy for the first 165 kWh per day	cents/kWh	4.070	4.670		
Energy above 165 kWh per day	cents/kWh	7.070	7.640		
60 Off-Peak (1) Night Network					
Energy consumption	cents/kWh	1.420	2.190	0.770	54.2%
70 Off-Peak (3) Day & Night Network					
Energy consumption	cents/kWh	1.940	2.900	0.960	49.5%
Renewable Energy Generation					

<sup>&</sup>lt;sup>27</sup> 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 with 2013/14 prices.

2014/15 Network Pricing Proposal



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Gross metered energy	cents/kWh	0.000	0.000	-	0.0%
Net metered energy	cents/kWh	0.000	0.000		
COMMERCIAL LOW VOLTAGE TARIFFS					
40 General Network				0.907	7.7%
Network access charge	cents/day	42.330	42.670		
Energy for the first 330 kWh per day	cents/kWh	10.880	11.810		
Energy above 330 kWh per day	cents/kWh	14.500	14.990		
135 Small Unmetered Loads Network				- 0.410	-3.2%
Network access charge	cents/day	35.800	37.700		
Energy consumption	cents/kWh	12.549	12.128		
80 Streetlighting Network				0.960	13.3%
Network access charge	cents/day	43.000	43.000		
Energy consumption	cents/kWh	7.210	8.170		
90 General TOU Network				0.579	5.8%
Network access charge	cents/day	42.330	42.670		
Energy at business times	cents/kWh	17.560	18.020		
Energy at evening times	cents/kWh	8.780	9.330		
Energy at off-peak times	cents/kWh	3.650	4.340		
Low voltage time of use demand					
network 101 LV TOU kVA Demand Network				0.700	9.9%
	cents/day	49.000	50.000	0.780	9.9%
Network access per connection point	c/KVA/day	45.100	48.600		
Maximum demand charge Energy at business times	cents/kWh	5.550	6.010		
Energy at evening times	cents/kWh	3.580	4.240		
Energy at off-peak times	cents/kWh	1.770	2.140		
103 LV TOU Capacity Network	oo.no/nvvii	1.770	2.140	0.704	10.7%
Network access per connection point	cents/day	49.000	50.000	0.704	10.7 %
Maximum demand charge	c/KVA/day	21.000	22.700		
Capacity charge	c/KVA/day	21.000	22.700		
Energy at business times	cents/kWh	5.550	6.010		
Energy at evening times	cents/kWh	3.580	4.240		
Energy at off-peak times	cents/kWh	1.770	2.140		
HIGH VOLTAGE TARIFFS					
High voltage time of use demand netwo	rk with Act	ωwΔGI Id	nw.		
voltage network	ik with Ao	CWAGE	<b>, , ,</b>		
111 HV TOU Demand Network				0.574	9.7%
Network access per connection point	\$/day	17.000	19.000		
Maximum demand charge	c/KVA/day	17.800	19.100		
Capacity charge	c/KVA/day	17.800	19.100		
Energy at business times	cents/kWh	4.520	4.760		
Energy at evening times	cents/kWh	2.920	3.270		
Energy at off-peak times	cents/kWh	1.510	1.940		
112 HV TOU Demand Network – Customer HV					
Network access per connection point	\$/day	17.000	19.000		
Maximum demand charge	c/KVA/day	16.800	18.200		
Capacity charge	c/KVA/day	16.800	18.200		
Energy at business times	cents/kWh	4.520	4.760		
Energy at evening times	cents/kWh	2.920	3.270		
Energy at off-peak times	cents/kWh	1.510	1.940		



High voltage time of use demand network voltage network  121 HV TOU Demand Network – Customer	ork without	ActewAG	L low	0.553	10.3%
LV				0.000	. 0.070
Network access per connection point	\$/day	17.000	19.000		
Maximum demand charge	c/KVA/day	17.800	19.100		
Capacity charge	c/KVA/day	17.800	19.100		
Energy at business times	cents/kWh	4.120	4.360		
Energy at evening times	cents/kWh	2.570	2.920		
Energy at off-peak times	cents/kWh	1.370	1.800		
122 HV TOU Demand Network - Customer H	·IV and LV			0.830	9.8%
Network access per connection point	\$/day	17.000	19.000		
Maximum demand charge	c/KVA/day	16.800	18.200		
Capacity charge	c/KVA/day	16.800	18.200		
Energy at business times	cents/kWh	4.120	4.360		
Energy at evening times	cents/kWh	2.570	2.920		
Energy at off-peak times	cents/kWh	1.370	1.800		

The increases shown in the Table 3-11 reflect the reduction in DUOS, the increase in TUOS and the new jurisdictional scheme charges for 2014/15. The CPI of 2.93 per cent and the X factor of 19.59 per cent reduced the MAAR by 17.23 per cent. Offsetting this, there is a 64.2 per cent increase in average TUOS charges in 2014/15. This increase in TUOS primarily reflects the additional costs in 2014/15 because of the recovery of the cost of ActewAGL Distribution's dual function assets within TUOS charges. The separate inclusion of the jurisdictional scheme costs contributes about 11.2 per cent to NUOS prices. The discontinuation of the NECF pass-through from 2013/14 has reduced the average DUOS charges by 0.68 per cent.



## 4 Charges for alternative control services

### 4.1 Ancillary services

In the 2014/15 transitional regulatory period, the existing ancillary service charges have been increased by CPI, as required by the AER's Placeholder Determination. Charges for new ancillary services have been set on a cost reflective basis. Ancillary metering services charges have been included with other ancillary services charges and metering service charges will be shown separately.

Ancillary services charges, as approved by the AER in the Placeholder Determination and adjusted for the March 2014 CPI, are shown in Table 4-2. Upstream augmentation charges are included in the list. These have already been approved by the AER (as part of ActewAGL Distribution's Connection Policy for 2014/15), and are included in this schedule so that it provides a complete list of fees.

Table 4-1 Charges for ancillary services 2014/15

			Proposed Prices excl GST	Proposed Prices incl.GST
Code	Description	Unit	2014/15	2014/15
Premi	se Re-energisation – Existing Network Connection			_
501	Re-energise premise – Business Hours	per visit	\$56.14	\$61.75
502	Re-energise premise – After Hours	per visit	\$120.73	\$132.80
Premi	se De-energisation – Existing Network Connection			
503	De-energise premise – Business Hours	per visit	\$49.59	\$54.55
505	De-energise premise for debt non-payment	per test	\$93.55	\$102.91
Meter	Reconfiguration			
507	Install Interval Meter	per meter	\$66.55	\$73.21
509	Install / Replace Meter – Micro Renewable Energy Installation	per meter	\$66.55	\$73.21
	Meter Investigations			
504	Meter Test (Whole Current) – Business Hours	per test	\$69.23	\$76.15
510	Meter Test (CT/VT) – Business Hours	per test	\$350.00	\$385.00
Specia	al / Additional Meter Reads			
506	Special Meter Read	per read	\$35.55	\$39.11
-	orary Network Connections		<b>#</b>	<b>0.400.50</b>
520	Temporary Builders Supply – Overhead (Business Hours)	per installation	\$398.64	\$438.50
522	Temporary Builders Supply – Underground (Business Hours)  Network Connections	per installation	\$703.64	\$774.00
523	New Underground Service Connection – Greenfield	per installation	\$0.00	\$0.00
524	New Underground Service Connection – Greenfield Cable Only	per installation	\$446.00	\$490.60
525	New Underground Service Connection – Greenfield Metering Only	per installation	\$0.00	\$0.00
526	New Overhead Service Connection – Brownfield (Business Hours)	per installation	\$288.18	\$317.00
527	New Underground Service Connection – Brownfield from Front	per installation	\$691.82	\$761.00
528 Netwo	New Underground Service Connection – Brownfield from Rear ork Connection Alterations and Additions	per installation	\$691.82	\$761.00
541	Overhead Service Relocation – Single Visit (Business Hours)	per installation	\$288.18	\$317.00





542	Overhead Service Relocation – Two Visits (Business Hours)	per installation	\$576.36	\$634.00
543	Overhead Service Upgrade – Service Cable Replacement Not Required	per installation	\$371.45	\$408.60
544	Overhead Service Upgrade – Service Cable Replacement Required	per installation	\$691.82	\$761.00
545	Underground Service Upgrade – Service Cable Replacement Not Required	per installation	\$371.45	\$408.60
546	Underground Service Upgrade – Service Cable Replacement Required	per installation	\$691.82	\$761.00
547 548	Underground Service Relocation – Single Visit (Business Hours) Install surface mounted point of entry (POE) box	per installation per installation	\$691.82 \$456.00	\$761.00 \$501.60
emp	orary De-energisation			
560	Temporary de-energisation – LV (Business Hours)	per occurrence	\$462.27	\$508.50
561	Temporary de-energisation – HV (Business Hours)	per occurrence	\$462.27	\$508.50
lagu	y Abolishment / Removal			
562 563	Supply Abolishment / Removal – Overhead (Business Hours) Supply Abolishment / Removal - Underground (Business Hours)	per site visit per site visit	\$288.18 \$288.18	\$317.00 \$317.00
∕lisce	llaneous Customer Initiated Services			
564	Install & Remove Tiger Tails – Per Installation ( Business Hours)	per installation	\$1,085.00	\$1,193.50
565	Install & Remove Tiger Tails - Per Span (Business Hours)	per installation	\$560.00	\$616.00
566	Install & Remove Warning Flags – Per Installation ( Business Hours)	per installation	\$745.00	\$819.50
567 <b>mbe</b>	Install & Remove Warning Flags - Per Span (Business Hours)  dded Generation - Operational & Maintenance Fees	per installation	\$480.00	\$528.00
568	Small Embedded Generation OPEX Fees - Connection Assets,	per annum	2%	2%
569	applied to the value of connection assets appreciated by CPI Small Embedded Generation OPEX Fees - Shared Network Asset, applied to the value of shared assets allocated to the	per annum	2%	2%
Conne	generator appreciated by CPI ection Enquiry Processing - PV Installations			
570	PV Connection Enquiry – LV Class 1 (<= 10kW Single Phase / 30k'	W Three Phase)	\$0.00	\$0.00
571	PV Connection Enquiry – LV Class 2 to 5 (> 30kW <= 1500kW Three Phase	per installation	\$514.55	\$566.01
572 573	PV Connection Enquiry – HV Provision of information for Network technical study for large sc	per installation ale installations	\$1,029.09 \$11,580.00	\$1,132.00 \$12,738.00
Netwo	ork Design & Investigation / Analysis Services - PV Installations *			
574	Design & Investigation - LV Connection Class 1 PV (<= 10kW Sing	le Phase / 30kW Thi	ree Phase)	
575	Design & Investigation - LV Connection Class 2 PV (> 30kW and <= 60kW Three Phase)	per installation	\$3,705.45	\$4,076.00
576	Design & Investigation - LV Connection Class 3 PV (> 60 kW and <= 120kW Three Phase)	per installation	\$4,837.27	\$5,321.00
577	Design & Investigation - LV Connection Class 4 PV (> 120 kW and <= 200kW Three Phase )	per installation	\$7,925.45	\$8,718.00
578	Design & Investigation - LV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – ActewAGL Network Study	per installation	\$10,732.73	\$11,806.00
579	Design & Investigation - HV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – Customer Network Study	per installation	\$11,560.00	\$12,716.00
	eam Augmentation (per KVA of capacity)**			
•	•,			\$37.62
585	HV Feeder	per KVA	\$34.20 \$40.83	*
585 586	HV Feeder Distribution substation	per KVA per KVA	\$34.20 \$19.82	\$21.80
585 586	HV Feeder	•		*

<sup>\* (</sup>See: http://www.actewagl.com.au/~/media/ActewAGL/ActewAGL-Files/About-us/Publications/Guidelines-for-LV-embedded-loop of the company ofgenerator-connections.ashx )
\*\*AER already approved amount.



Table 4-2 compares the ancillary service charges for 2014/15 with the comparable charges for 2013/14. The average increase in these ancillary service charges (including GST) is around 2.5 per cent.

Table 4-2 Changes to ancillary services charges

			Prices incl.GST	Proposed Prices incl.GST	Change %
Code	Description	Pricing Unit	2013/14	2014/15	
Premis	e Re-energisation – Existing Network Connection				
501	Re-energise premise – Business Hours	per visit	\$60.00	\$61.75	2.9%
502	Re-energise premise – After Hours	per visit	\$129.00	\$132.80	2.9%
Premis	e De-energisation – Existing Network Connection				
503	De-energise premise – Business Hours	per visit	\$53.00	\$54.55	2.9%
505	De-energise premise for debt non-payment	per test	\$100.00	\$102.91	2.9%
	Reconfiguration				
507	Install Interval Meter	per meter	\$71.10	\$73.21	3.0%
509	Install / Replace Meter – Micro Renewable Energy Installation	per meter	\$71.10	\$73.21	3.0%
Meter 504	Investigations  Meter Test (Whole Current) – Business Hours	nor tost	\$74.00	\$76.15	2.9%
510	Meter Test (Whole Current) – Business Hours  Meter Test (CT/VT) – Business Hours	per test per test	ψ <i>1</i> 4.00	\$385.00	2.370
	I / Additional Meter Reads	per test		ψ505.00	
506	Special Meter Read	per read	\$38.00	\$39.11	2.9%
	prary Network Connections	per read	φοσ.σσ	φοσ	2.070
520	Temporary Builders Supply – Overhead (Business Hours)	per installation	\$426.00	\$438.50	2.9%
522	Temporary Builders Supply – Underground (Business Hours)	per installation	\$752.00	\$774.00	2.9%
	etwork Connections	<b>,</b>	*********	****	,
523	New Underground Service Connection – Greenfield	per installation	\$0.00	\$0.00	
524	New Underground Service Connection – Greenfield Cable Only	per installation		\$490.60	
525	New Underground Service Connection – Greenfield Metering Only	per installation	\$0.00	\$0.00	
526	New Overhead Service Connection – Brownfield (Business Hours)	per installation	\$308.00	\$317.00	2.9%
527	New Underground Service Connection – Brownfield from Front	per installation	\$739.00	\$761.00	3.0%
528	New Underground Service Connection – Brownfield from Rear	per installation	\$739.00	\$761.00	3.0%
	rk Connection Alterations and Additions				
541	Overhead Service Relocation – Single Visit (Business Hours)	per installation	\$308.00	\$317.00	2.9%
542	Overhead Service Relocation – Two Visits (Business Hours)	per installation	\$616.00	\$634.00	2.9%
543	Overhead Service Upgrade – Service Cable Replacement Not Required	per installation	\$397.00	\$408.60	2.9%
544	Overhead Service Upgrade – Service Cable Replacement Required	per installation	\$739.00	\$761.00	3.0%
545	Underground Service Upgrade – Service Cable Replacement Not Required	per installation	\$397.00	\$408.60	2.9%
546	Underground Service Upgrade – Service Cable Replacement Required	per installation	\$739.00	\$761.00	3.0%
547	Underground Service Relocation – Single Visit (Business Hours)	per installation	\$739.00	\$761.00	3.0%
548	Install surface mounted point of entry (POE) box	per installation	\$0.00	\$501.60	
-	prary De-energisation		¢404.00	<b>የ</b> ደረሳ ደረ	2.00/
560	Temporary de-energisation – LV (Business Hours)	per occurrence	\$494.00	\$508.50 \$508.50	2.9%
561	Temporary de-energisation – HV (Business Hours)	per occurrence	\$494.00	\$508.50	2.9%



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	Abolishment / Removal		<b>*</b>	<b>Ac</b> := 1	
562	Supply Abolishment / Removal – Overhead (Business Hours)	per site visit	\$308.00	\$317.00	2.9%
563	Supply Abolishment / Removal - Underground (Business Hours)	per site visit	\$308.00	\$317.00	2.9%
	laneous Customer Initiated Services			<b>A.</b>	
564	Install & Remove Tiger Tails – Per Installation ( Business Hours)	per installation		\$1,193.50	
565	Install & Remove Tiger Tails - Per Span (Business Hours)	per installation		\$616.00	
566	Install & Remove Warning Flags – Per Installation ( Business Hours)	per installation		\$819.50	
567	Install & Remove Warning Flags - Per Span (Business Hours)	per installation		\$528.00	
Embed	Ided Generation - Operational & Maintenance Fees				
568	Small Embedded Generation OPEX Fees - Connection Assets, applied to the value of connection assets appreciated by CPI	per annum	2%	2%	
569	Small Embedded Generation OPEX Fees - Shared Network Asset, applied to the value of shared assets allocated to the generator appreciated by CPI	per annum	2%	2%	
Conne	ction 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	\$550.00	\$566.01	2.9%
572	PV Connection Enquiry – HV	per installation	\$1,100.00	\$1,132.00	2.9%
573	Provision of information for Network technical study for large scale installations	per installation			2.9%
Netwo	ork Design & Investigation / Analysis Services - PV Installations				
574	Design & Investigation - LV Connection Class 1 PV (<= 10kW Sin	gle Phase / 30kW Tl	hree Phase)		
575	Design & Investigation - LV Connection Class 2 PV (> 30kW and <= 60kW Three Phase)	per installation	\$3,960.00	\$4,076.00	2.9%
576	Design & Investigation - LV Connection Class 3 PV (> 60 kW and <= 120kW Three Phase)	per installation	\$5,170.00	\$5,321.00	2.9%
577	Design & Investigation - LV Connection Class 4 PV (> 120 kW and <= 200kW Three Phase )	per installation	\$8,470.00	\$8,718.00	2.9%
578	Design & Investigation - LV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – ActewAGL Network Study	per installation			2.9%
579	Design & Investigation - HV Connection Class 5 PV (> 200kW and <= 1500kW Three Phase) – Customer Network Study	per installation			2.9%
Reside	ntial Estate Subdivision Services (per block)				
580	Subdivision Electricity Distribution Network Reticulation - Multi-Unit Blocks	per block		\$0.00	
581	Subdivision Electricity Distribution Network Reticulation - Blocks <= 650 m <sup>2</sup>	per block		\$660.00	
582	Subdivision Electricity Distribution Network Reticulation - Blocks 650 - 1100m <sup>2</sup>	per block		\$1,210.00	
	with average linear frontage of 22-25 meters				
Upstre	am Augmentation (per KVA of capacity)				
585	HV Feeder	per KVA		\$37.62	
586	Distribution substation	per KVA		\$21.80	
Resch	eduled Site Visits				
590	Rescheduled Site Visit – One Person	per site visit		\$137.50	
591	Rescheduled Site Visit – Service Team	per site visit		\$412.50	
Trench	ning charges				
592	Trenching - first 5 meters	per visit		\$500.00	
593	Trenching - subsequent meters	per meter		\$100.00	
Boring	charges				
594	Under footpath	per occurrence		\$500.00	



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

ActewAGL Distribution's schedule of metering charges comprises daily charges for the provision of each of four different types of manually read metering services. Meters for residential consumers are usually read quarterly while those for small low voltage commercial consumers (consuming less than 160 MWh pa) are usually read monthly. Metering services for larger low voltage consumers and for high voltage consumers are open to competition and are not regulated. Remotely read metering services (types 1 to 4) are contestable in the ACT. Retailers are able to elect to install remotely read meters in premises where the customer consumes less than 160 MWh per annum.

#### 4.3 Metering services charges for 2014/15

Prices for ActewAGL Distribution's metering services are regulated to rise by CPI in 2014/15. Table 4-3 presents the proposed metering service charges in 2014/15. These charges were increased by CPI and rounded to the nearest 100<sup>th</sup> of a cent per day, except for the charge for the charge for monthly read interval meters which were rounded to the nearest cent per day. The CPI is determined using the definition in chapter 10 of the Rules.

Table 4-3 Metering charges

			Propose	d prices
Code	Description	Unit	2014/15	2014/15
MP1	Quarterly basic metering rate			Incl GST
MP2	Accumulation and time-of-use meters read quarterly Monthly basic metering rate	cents per day per NMI	13.34	14.674
MP3	Accumulation and time-of-use meters read monthly Time-of-use metering rate	cents per day per NMI	23.33	25.663
	Time-of-use meters read monthly	cents per day per NMI	23.33	25.663
MP4	Monthly manually-read interval meterin	g rate		
MP6	Interval meters recording at either 15- or 30-minute intervals, read manually and processed monthly Quarterly manually-read interval meteri	\$ per day per NMI	1.88	2.068
WIFO	•	•		
	Interval meters recording at either 15- or 30-minute intervals, read manually and processed quarterly	cents per day per NMI	53.73	59.103

<sup>\*</sup>National Meter Identifier.

There are no changes to the metering services offered in 2014/15. Table 4-3 compares the metering charges including GST for 2014/15 with those for 2013/14.



## 4.4 Changes in metering charges (including GST)

			Prices	Proposed prices	Change
Code	Description	Unit	2013/14	2014/15	%
MP1	Quarterly basic metering rate				
MP2	Accumulation and time-of-use meters read quarterly Monthly basic metering rate	cents per day per NMI	14.256	14.674	2.9%
MP3	Accumulation and time-of-use meters read monthly Time-of-use metering rate	cents per day per NMI	24.937	25.663	2.9%
	Time-of-use meters read monthly	cents per day per NMI	24.937	25.663	2.9%
MP4	Monthly manually-read interval meter	ing rate			
MDe	Interval meters recording at either 15- or 30-minute intervals, read manually and processed monthly	\$ per day per NMI	2.013	2.068	2.7%
MP6	Quarterly manually-read interval meter	•			
1	Interval meters recording at either 15- or 30-minute intervals, read manually and processed quarterly	cents per day per NMI	57.420	59.103	2.9%



## 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 charges for both standard control services (network tariffs) and alternative control services (regulated metering service charges). Table 5-1 shows network charges (standard control services, TUOS and jurisdictional schemes) plus metering service charges (alternative control services) for 2014/15 and the comparable charges for 2013/14, excluding GST. High voltage charges have been excluded as ActewAGL Distribution does not provide metering services to high voltage customers. Metering services to customers consuming more than 160 MWh per annum are open to competition and not regulated.

Standard control services and alternative control services are shown separately in ActewAGL Distribution's pricing schedule and are charged separately to retailers.

Table 5-1 Network and metering charges 2014/15

Description	Unit	2013/14	2014/15	Change c/kWh	Change %
RESIDENTIAL TARIFFS					
10 Residential Basic Network				0.68	7.7%
Network access charge	cents/day	34.40	36.50		
Energy consumption	cents/kWh	7.07	7.64		
15 Residential TOU Network				0.90	9.7%
Network access charge	cents/day	34.40	36.50		
Energy at max times	cents/kWh	10.09	10.34		
Energy at mid times	cents/kWh	5.66	6.80		
Energy at economy times	cents/kWh	4.16	4.78		
20 Residential 5000 Network				0.74	7.7%
Network access charge	cents/day	55.60	57.70		
Energy for the first 60 kWh per day	cents/kWh	5.53	6.12		
Energy above 60 kWh per day	cents/kWh	7.07	7.64		
30 Residential with Heat Pump Network				0.64	10.5%
Network access charge	cents/day	98.30	100.40		
Energy for the first 165 kWh per day	cents/kWh	4.07	4.67		
Energy above 165 kWh per day	cents/kWh	7.07	7.64		
60 Off-Peak (1) Night Network				0.77	54.2%
Energy consumption	cents/kWh	1.42	2.19		
70 Off-Peak (3) Day & Night Network				0.96	49.5%
Energy consumption	cents/kWh	1.94	2.90		
Renewable Energy Generation					
Gross metered energy	cents/kWh	0.00	0.00	-	
Net metered energy	cents/kWh	0.00	0.00	-	0.0%
COMMERCIAL LOW VOLTAGE TARIFFS					
40 General Network				0.91	7.5%
Network access charge	cents/day	65.00	66.00		
Energy for the first 330 kWh per day	cents/kWh	10.88	11.80		
Energy above 330 kWh per day	cents/kWh	14.50	15.00		



135 Small Unmetered Loads Network				- 0.60	-4.7%
Network access charge	cents/day	35.80	37.70		
Energy consumption	cents/kWh	12.55	11.939		
80 Streetlighting Network				0.97	13.4%
Network access charge	cents/day	65.67	66.33		
Energy consumption	cents/kWh	7.21	8.18		
90 General TOU Network				0.58	5.7%
Network access charge	cents/day	65.00	66.00		
Energy at business times	cents/kWh	17.56	18.01		
Energy at evening times	cents/kWh	8.78	9.33		
Energy at off-peak times	cents/kWh	3.65	4.34		
Low voltage time of use demand net	work				
101 LV TOU kVA Demand Network				0.78	9.7%
Network access per connection point	cents/day	232	238		
Maximum demand charge	c/KVA/day	45.10	48.60		
Energy at business times	cents/kWh	5.55	6.00		
Energy at evening times	cents/kWh	3.58	4.24		
Energy at off-peak times	cents/kWh	1.77	2.14		
103 LV TOU Capacity Network				0.70	10.6%
Network access per connection point	cents/day	232	238		
Maximum demand charge	c/KVA/day	21.00	22.70		
Capacity charge	c/KVA/day	21.00	22.70		
Energy at business times	cents/kWh	5.55	6.00		
Energy at evening times	cents/kWh	3.58	4.24		
Energy at off-peak times	cents/kWh	1.77	2.14		
HIGH VOLTAGE TARIFFS					
High voltage time of use demand ne	twork with Acte	wAGL low	voltage ne	twork	
111 HV TOU Demand Network			· ·	0.57	9.5%
Network access per connection point	\$/day	\$18.83	\$20.88		
Maximum demand charge	c/KVA/day				
Capacity charge		17.80	19.10		
	c/KVA/day	17.80 17.80	19.10 19.10		
Energy at business times	•				
Energy at business times Energy at evening times	c/KVA/day	17.80	19.10		
•	c/KVA/day cents/kWh	17.80 4.52	19.10 4.75		
Energy at evening times	c/KVA/day cents/kWh cents/kWh	17.80 4.52 2.92	19.10 4.75 3.27		
Energy at evening times Energy at off-peak times	c/KVA/day cents/kWh cents/kWh cents/kWh	17.80 4.52 2.92	19.10 4.75 3.27 1.93		
Energy at evening times Energy at off-peak times 112 HV TOU Demand Network – Custom	c/KVA/day cents/kWh cents/kWh	17.80 4.52 2.92 1.51	19.10 4.75 3.27		
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point	c/KVA/day cents/kWh cents/kWh cents/kWh	17.80 4.52 2.92 1.51 \$18.83	19.10 4.75 3.27 1.93 \$20.88		
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge	c/KVA/day cents/kWh cents/kWh cents/kWh er HV \$/day c/KVA/day	17.80 4.52 2.92 1.51 \$18.83 16.80	19.10 4.75 3.27 1.93 \$20.88 18.20		
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20		
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92	19.10 4.75 3.27 1.93 \$20.88 18.20 4.75 3.27		
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92 1.51	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93	e network	
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh twork without A er LV	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92 1.51 <b>ctewAGL</b> I	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93	e network 0.54	10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh twork without A er LV  \$/day	17.80 4.52 2.92 1.51 \$18.83 16.80 4.52 2.92 1.51 <b>ctewAGL</b>	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93 How voltage		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh twork without A er LV	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92 1.51 <b>ctewAGL</b> I	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh twork without A er LV  \$/day	17.80 4.52 2.92 1.51 \$18.83 16.80 4.52 2.92 1.51 <b>ctewAGL</b>	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93 How voltage		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh twork without A er LV  \$/day c/KVA/day	17.80 4.52 2.92 1.51 \$18.83 16.80 4.52 2.92 1.51 <b>ctewAGL</b> I	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93 low voltage \$20.88 19.10		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh cents/kWh tents/kWh twork without A er LV  \$/day c/KVA/day c/KVA/day	17.80 4.52 2.92 1.51 \$18.83 16.80 4.52 2.92 1.51 <b>ctewAGL</b> I \$18.83 17.80 17.80	19.10 4.75 3.27 1.93 \$20.88 18.20 18.20 4.75 3.27 1.93 **low voltage** \$20.88 19.10 19.10		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at evening times Energy at off-peak times	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh twork without A er LV  \$/day c/KVA/day cents/kWh cents/kWh cents/kWh	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92 1.51 <b>ctewAGL</b> I \$18.83 17.80 4.12	19.10 4.75 3.27 1.93 \$20.88 18.20 4.75 3.27 1.93 low voltage \$20.88 19.10 19.10 4.35		10.1%
Energy at evening times Energy at off-peak times  112 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times Energy at off-peak times High voltage time of use demand ne 121 HV TOU Demand Network – Custom Network access per connection point Maximum demand charge Capacity charge Energy at business times Energy at evening times	c/KVA/day cents/kWh cents/kWh cents/kWh er HV  \$/day c/KVA/day c/KVA/day cents/kWh cents/kWh twork without A er LV  \$/day c/KVA/day cents/kWh cents/kWh cents/kWh	17.80 4.52 2.92 1.51 \$18.83 16.80 16.80 4.52 2.92 1.51 ctewAGL   \$18.83 17.80 17.80 4.12 2.57	19.10 4.75 3.27 1.93  \$20.88 18.20 4.75 3.27 1.93  low voltage \$20.88 19.10 19.10 4.35 2.92		9.7%



Maximum demand charge	c/KVA/day	16.80	18.20
Capacity charge	c/KVA/day	16.80	18.20
Energy at business times	cents/kWh	4.12	4.35
Energy at evening times	cents/kWh	2.57	2.92
Energy at off-peak times	cents/kWh	1.37	1.79

#### 5.2 Estimated impacts on average customer electricity network bills

The proposed 2014/15 increases in network and metering charges would raise the electricity network bill for an average residential customer consuming 7000 kWh on the Residential Basic network tariff by \$1.01per week (including GST), a real increase of 4.6 per cent (7.7 per cent nominal). For a commercial customer consuming 30 MWh per annum on the General network charge, the network and metering price increases would raise their electricity network bill by \$5.98 per week (including GST) implying a increase 5.0 per cent real change in prices (8.1 per cent nominal increase).



# **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 *ActewAGL*, *Placeholder Determination for the 2014/15 regulatory control period*, and where they are addressed in this document.



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

Rules	Req	uirement	Cov	verage in this document
6.18.2	The	pricing proposal must:		
(b)	(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 <b>Table</b> 3-3. 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 2013/14 and 2014/15.
	(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 2014/15. 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 2014/15. TUOS charges are provided in Table 3-6. 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 Placeholder Determination.
	(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 2013/14 regulatory year. Tables 3.3 Error! Reference source not found. demonstrates that revenue from 2014/15 prices matches allowable revenue calculated in section 3.1.1
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	(b)	Each customer is on one or more tariffs

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		of 1 or more tariff classes.		within one or more tariff classes for which qualify
	(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).	(c)	Separate tariff classes and charges are specified for standard control services in Table 3-3 and alternative control services in Table 4.2. Error! Reference source not found
	(d)	A tariff class must be constituted with regard to:	(d)	Section 2.1 contains an explanation of
		(i) the need to group customers together on an economically efficient basis; and		the basis of the tariff classes.
		(ii) the need to avoid unnecessary transaction costs.		
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:	Acte assi clas regu	The AER's Placeholder Determination for ewAGL says that the procedures for going or re-assigning customers to tariff ses will be the same as for the 2009-14 selectory period. The procedures for that
	(1)	customers should be assigned to tariff classes on the basis of one or more of the following factors:	final	od are set out in Appendix A of the AER's decision on the 2009-14 ACT distribution ermination.
		(i) the nature and extent of their usage;	uele	arriiriauori.
		<ul> <li>(ii) the nature of their connection to the network;</li> <li>(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;</li> </ul>		
	(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.		
6.18.5	(a)	For each tariff class, the revenue expected to be recovered should lie on or between:	(a)	Table 2.4 shows that the revenue expected from each tariff class lies
	(1)	an upper bound representing the stand alone cost of serving the customers who belong to that class; and		between the stand alone cost and the avoidable cost for the tariff class. Section
	(2)	a lower bound representing the avoidable cost of not serving those customers.		2.3 contains an explanation of the basis and application of the principle.
	(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	(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
	(i)	(2) must be determined having regard to: transaction costs associated with the tariff or each charging parameter; and	(6)	recover revenue in an efficient manner (as required by (c) below).
<u></u>	l		(c)	Section 2.3 contains explanations of how



	(ii) whether customers of the relevant tariff class are able or 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.	the need to recover revenue with minimum distortion to efficient patterns of consumption is taken into account when setting charging parameters.
6.18.6	<ul> <li>(a) This clause applies only to tariff classes related to the provision of standard control services.</li> <li>(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.</li> <li>(c) The permissible percentage is the greater of the following:</li> <li>(1) the CPI-X limitation on any increase in the Distribution Network Service Provider's expected weighted average revenue between the two regulatory years plus 2%;</li> <li>Note:</li> </ul>	2014/15 is the first year of the regulatory period (in accordance with clause 11.56.4(b)), so side constraints do not apply.
	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.	
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:	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 2013/14. The over and under recovery is shown in Table 3-5. TUOS charges are provided in Table 3.7.
	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	
(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 placeholder determination

Placeholder determination requirement	Coverage in this document
"The relevant control mechanism and formulae for standard control services is as set out in the Stage 1 framework and approach paper. 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. 2)  "The AER determines to apply price cap regulation to alternative control services in the transitional regulatory control period. Alternative control service prices in the transitional regulatory control period must be the current prices escalated by CPI." (p. 2)	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 Placeholder Determination.  Chapter 4 demonstrates that an X factor of 0.0% has been applied in calculating the price caps for alternative control services. This complies with the AER's Placeholder Determination.
Compliance with the standard control services control mechanism.  "The manner of demonstration of compliance with a relevant control mechanism is as set out in the Stage 1 framework and approach paper" (p. 3)	The manner of demonstrating compliance is not addressed in the Stage 1 Framework and Approach paper. ActewAGL Distribution has therefore adopted the approach used in the 2009-14 regulatory period.
Assigning retail customers to tariff classes  "The AER determines that the procedures for assigning retail customers to tariff classes or reassigning retail customers from one tariff class to another, including any applicable restrictions, are the same as those specified as part of the distribution determination for the current regulatory control period for ActewAGL." (p. 4)	The AER's Placeholder Determination for ActewAGL says that the procedures for assigning or re-assigning customers to tariff classes will be the same as for the 2009-14 regulatory period. The procedures for that period are set out in Appendix A of the AER's final decision on the 2009-14 ACT distribution determination.
Reporting on recovery of jurisdictional scheme amounts  "The AER determines that ActewAGL is to report to the AER on its recovery of jurisdictional scheme amounts and on the adjustments to be made to subsequent pricing proposals in the same manner as during the current regulatory control period." (p. 4)	ActewAGL Distribution advised the AER on 17 April that it has not reported on jurisdictional schemes in the current regulatory control period. The AER advised by letter dated 13 May 2014 that it agreed that the methodology proposed by ActewAGL Distribution in the transitional regulatory proposal should be applied and reported in the pricing proposal. This is reported in section 3.4 of this pricing proposal.