DIRECT CONTROL SERVICES

Initial Pricing Proposal

2015-16

21 May 2015

Endeavour Energy

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1 INTRODUCTION

Endeavour Energy is submitting this 2015-16 Initial Pricing Proposal to the Australian Energy Regulator (AER) in accordance with the requirements of Part I, section 6.18 of the National Electricity Rules (the Rules).

1.1 National Electricity Rules

In accordance with clause 6.1.1 of the Rules, the AER is responsible for the economic regulation of distribution services provided by means of, or in connection with, distribution systems that form part of the national grid.

1.2 Classification of distribution services

In accordance with clause 6.2.1 of the Rules, Distribution services to be provided by the Distribution Network Service Provider (DNSP) are divided into the following two classes:

- Direct control services; or
- Negotiated distribution services.

Direct control services are further divided into the following two subclasses:

- Standard control services; and
- Alternative control services.

The AER has classified the following categories of direct control services as alternative control services:

- Ancillary network services
- Metering
- Public lighting

Effective 1 July 2015, and in accordance with the AER's Final Decision, metering service charges will be extracted from Standard Control Service DUOS prices and added to our customer's network bills as a separate charge.

This pricing proposal is relevant to those services provided by Endeavour Energy that are classified as direct control services.

1.3 Scope of Endeavour Energy's pricing proposal

In meeting the requirements of Part I of the Rules, and in particular clause 6.18.2(a)(1), Endeavour Energy's 2015-16 Initial Pricing Proposal sets out the proposed prices required to recover the revenue approved by the Australian Energy Regulator (AER) in the AER's Final Decision for the Endeavour Energy Distribution Determination 2015-16 to 2018-19 (AER's Distribution Determination).

This 2015-16 Initial Pricing Proposal is submitted in accordance with, and complies with, the requirements of:

- The National Electricity Law;
- The National Electricity Rules;
- The AER's Distribution Determination.

Endeavour Energy has decided to appeal the AER's final determination. Endeavour Energy's proposed 2015-16 prices are interim prices pending the outcomes of Endeavour's decision to appeal the AER Final Determination, and in the event that aspects of this appear are upheld, Endeavour Energy believes that it is consistent with the NEO to vary tariffs as set out in section 5.4 of this proposal.

1 INTRODUCTION

1.4 Structure of Endeavour Energy's pricing proposal

Endeavour Energy's 2015-16 Initial Pricing Proposal is structured as follows:

Table 1.1 – Structure of this pricing proposal

Chapter	Title	Purpose
2	Regulatory Requirements	Summarises the regulatory requirements as they relate to this pricing proposal, and includes the relevant requirements of the *Rules* and the AER's *Distribution Determination.*
3	Business Characteristics	Summarises the characteristics of Endeavour Energy's network that provide the context for Endeavour Energy's network tariff strategy.
4	Tariff Classes	Defines the tariff classes into which Endeavour Energy's customers for direct control services are divided.
5	Network Tariff Strategy	Outlines Endeavour Energy's Network Tariff Strategy.
6	Network Use of System Tariffs	Describes the nature and extent of the change in Endeavour Energy's NUOS tariffs between 2014-15 and 2015-16.
7	Customer Impacts	Outlines the expected customer impacts of this pricing proposal.
8	Compliance with Regulatory Requirements	Demonstrates that Endeavour Energy's pricing proposal complies the regulatory requirements as they relate to this pricing proposal.
9	Climate Change Fund	Sets out the amount that Endeavour Energy must recover from its Climate Change Fund Recovery tariffs.
10	Transmission Cost Recovery Tariffs	Sets out Endeavour Energy's Transmission cost recovery tariff setting methodology and demonstrates adjustments made to the tariffs resulting from the operation of the transmission use of system unders and overs account.
11	Customer Reassignment	Sets out the number of customers impacted by and reasons for Endeavour Energy's 2015-16 tariff reassignment strategy.
12	Alternative Control Services	Sets out Endeavour Energy's Alternative Control Service tariffs. Ancillary Network Services, Metering and Public Lighting Tariffs are calculated in accordance with the AER's *Distribution Determination.*
Appendices		Separately provided.

1 INTRODUCTION

1.5 Confidentiality

Clause 6.19.2(a) of the Rules provides that:

> *"all information about a Service Applicant or Distribution Network User used by Distribution Network Service Providers for the purposes of distribution service pricing is confidential information."*

The following appendices and attachments to the 2015-16 Initial Pricing Proposal contain sensitive confidential information specific to the individual Distribution Network Users. As such, Endeavour Energy requests that the AER does not disclose the information contained in these appendices and attachments to any person except as permitted by the Law and Rules.

Appendices

- Confidential Appendix A – Distribution Use of System Tariffs;
- Confidential Appendix B – Consideration of LRMC;
- Confidential Appendix C – Climate Change Fund Recovery Tariffs;
- Confidential Appendix D – Transmission Cost Recovery Tariffs; and
- Confidential Appendix E – Network Use of System Tariffs.

Attachments

- Confidential Attachment 1 – Revenue Cap Compliance Model;
- Confidential Attachment 2 – Long Run Marginal Cost Model; and
- Confidential Attachment 3 – Regulatory Cost of Supply Model.

2 REGULATORY REQUIREMENTS

This Chapter summarises the regulatory requirements as they relate to Endeavour Energy's 2015-16 Initial Pricing Proposal, and includes the relevant requirements of the Rules and the AER's Distribution Determination.

2.1 Requirements of the Rules

Required elements of a pricing proposal

In accordance with clause 6.18.2 of the Rules, Endeavour Energy's 2015-16 Initial Pricing Proposal must include the elements summarised below:

> *6.18.2 Pricing proposals*
>
> *(b) A pricing proposal must:*
>
> *(1) set out the tariff classes that are to apply for the relevant regulatory year; and*
>
> *(2) set out the proposed tariffs for each tariff class; and*
>
> *(3) set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates; and*
>
> *(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*
>
> *(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*
>
> *(6) set out how designated pricing proposal charges 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*
>
> *(6A) set out how jurisdictional scheme amounts for each approved jurisdictional scheme are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those amounts; and*
>
> *(6B) describe how each approved jurisdictional scheme that has been amended since the last jurisdictional scheme approval date meets the jurisdictional scheme eligibility criteria; and*
>
> *(7) demonstrate compliance with the Rules and any applicable distribution determination; and*
>
> *(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.*
>
> *(c) The AER must on receipt of a pricing proposal from a Distribution Network Service Provider publish the proposal.*

Endeavour Energy has prepared its 2015-16 Initial Pricing Proposal in accordance with the requirements of the Rules, as summarised above.

In accordance with clause 6.18.2 of the Rules, Endeavour Energy must submit to the AER, as soon as practicable, and in any case within 15 business days, after publication of the distribution determination, a pricing proposal (the initial pricing proposal) for the first regulatory year of the regulatory control period.

2 REGULATORY REQUIREMENTS

Tariff Classes

In accordance with clause 6.18.3 of the Rules, Endeavour Energy's 2015-16 Initial Pricing Proposal must satisfy the following criteria with respect to tariff classes:

> *6.18.3 Tariff classes*
>
> *(a) A pricing proposal must define the tariff classes into which retail customers for direct control services are divided.*
>
> *(b) Each customer for direct control services must be a member of 1 or more tariff classes.*
>
> *(c) Separate tariff classes must be constituted for retail customers to whom standard control services are supplied and retail customers to whom alternative control services are supplied (but a customer for both standard control services and alternative control services may be a member of 2 or more tariff classes).*
>
> *(d) A tariff class must be constituted with regard to:*
>
> *(1) the need to group retail customers together on an economically efficient basis; and*
>
> *(2) the need to avoid unnecessary transaction costs.*

Assignment or re-assignment of customers to tariff classes

In accordance with clause 6.18.4 of the Rules, Endeavour Energy is governed by the following customer reassignment principles:

> *6.18.4 Principles governing assignment or re-assignment of retail customers to tariff classes and assessment and review of basis of charging*
>
> *(a) In formulating provisions of a distribution determination governing the assignment of retail customers to tariff classes or the re-assignment of retail customers from one tariff class to another, the AER must have regard to the following principles:*
>
> *(1) retail customers should be assigned to tariff classes on the basis of one or more of the following factors:*
>
> *(i) the nature and extent of their usage;*
>
> *(ii) the nature of their connection to the network;*
>
> *(iii) whether remotely-read interval metering or other similar metering technology has been installed at the customer's premises as a result of a regulatory obligation or requirement;*
>
> *(2) retail customers with a similar connection and usage profile should be treated on an equal basis;*
>
> *(3) however, retail customers with micro-generation facilities should be treated no less favourably than retail 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.*
>
> *Note:*
>
> *If (for example) a customer is assigned (or reassigned) to a tariff class on the basis of the customer's actual or assumed maximum demand, the system of assessment and review should allow for the reassignment of a customer who demonstrates a reduction or increase in maximum demand to a tariff class that is more appropriate to the customer's load profile.*

2 REGULATORY REQUIREMENTS

(b) If the charging parameters for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged.

Pricing Principles

Clause 6.18.5 of the Rules state that Endeavour Energy must comply with the following pricing principles:

6.18.5 Pricing principles

(a) For each tariff class, the revenue expected to be recovered should lie on or between:

(1) an upper bound representing the stand alone cost of serving the retail customers who belong to that class; and

(2) a lower bound representing the avoidable cost of not serving those retail customers.

(b) A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class:

(1) must take into account the long run marginal cost for the service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates; and

(2) must be determined having regard to:

(i) transaction costs associated with the tariff or each charging parameter; and

(ii) whether retail 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.

Recovery of charges for transmission use of system services

In accordance with clause 6.18.7 of the Rules, Endeavour Energy's 2015-16 Initial Pricing Proposal must satisfy the following criteria:

6.18.7 Recovery of designated pricing proposal charges

(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.

(b) The amount to be passed on to retail customers for a particular regulatory year must not exceed the estimated amount of the designated pricing proposal charges adjusted for over or under recovery in accordance with paragraph (c).

(c) The over and under recovery amount must be calculated in a way that:

(1) subject to subparagraphs (2) and (3) below, is consistent with the method determined by the AER in the relevant distribution determination for the Distribution Network Service Provider;

(2) ensures a Distribution Network Service Provider is able to recover from retail customers no more and no less than the designated pricing proposal charges it incurs; and

(3) adjusts for an appropriate cost of capital that is consistent with the rate of return used in the relevant distribution determination for the relevant regulatory year.

2 REGULATORY REQUIREMENTS

(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.

Recovery of jurisdictional scheme amounts

In accordance with clause 6.18.7A of the Rules, Endeavour Energy's 2015-16 Initial Pricing Proposal must satisfy the following criteria:

6.18.7A Recovery of jurisdictional scheme amounts

(a) A pricing proposal must provide for tariffs designed to pass on to customers a Distribution Network Service Provider's jurisdictional scheme amounts for approved jurisdictional schemes.

(b) The amount to be passed on to customers for a particular regulatory year must not exceed the estimated amount of the jurisdictional scheme amounts for a Distribution Network Service Provider's approved jurisdictional schemes adjusted for over or under recovery in accordance with paragraph (c).

(c) The over and under recovery amount must be calculated in a way that:

(1) subject to subparagraphs (2) and (3) below, in consistent with the method determined by the AER for jurisdictional scheme amounts in the relevant distribution determination for the Distribution Network Service Provider, or where no such method has been determined, with the method determined by the AER in the relevant distribution determination in respect of designated pricing proposal charges;

(2) ensures a Distribution Network Service Provider is able to recover from customers no more and no less than the jurisdictional scheme amounts 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.

2.2 Requirements of the AER's Final Decision

Revenue Cap

In accordance with section 14.5.3 of the AER's Final Decision, Endeavour Energy must submit to the AER proposed tariffs and charging parameters for standard control services consistent with the total annual revenue formula below, plus any unders and overs adjustment needed to move the balance of the DUOS unders and overs account to zero.

1. $TAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$ i=1,…,n and j=1,…,m and t=1,…,5
2. $TAR_t = AR_t \pm B_t \pm DUOS_t$
3. $AR_t = AR_{t-1} (1 + \Delta CPI_t) (1 - X_t)(1 - S_t)$

Where:

TAR_t is total annual revenue in year *t*.

2 REGULATORY REQUIREMENTS

p_t^{ij} is the price of component i of tariff j in year *t*.

q_t^{ij} is the forecast quantity of component i of tariff j in year *t*.

AR_t is the annual smoothed expected revenue for year t. For the 2015-16 regulatory year AR_{t-1} is the annual smoothed expected revenue in the Post Tax Revenue Model for 2014-15.

B_t is:

- The approved pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER, plus
- The D-factor amounts we the AER approve for 2013-14 (applies to Endeavour Energy's pricing proposal for the regulatory year 2015-16).

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}\right] - 1$$

CPI means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_t the smoothing factor determined in accordance with the PTRM as approved in the AER's Distribution Determination, and annually revised for the return on debt update in accordance with the formula specified in Appendix I of the AER's Final Decision calculated for the relevant year.

S_t is the STPIS factor sum of the raw s-factors for all reliability of supply and customer service parameters (as applicable) to be applied in year t. S_t for 2015-16 and 2016-17 are set at zero.

$DUOS_t$ is an annual adjustment factor related to the balance of the DUOS unders and overs account with respect to regulatory year t.

Side Constraint

In accordance with section 14.5.3 of the AER's Distribution Determination, Endeavour Energy Endeavour Energy must demonstrate in its pricing proposal that proposed DUOS prices for year (t) will meet the side constraints formula for each tariff class as set out below.

$$\frac{(\sum_{j=1}^{m} d_t^j q_t^j)}{(\sum_{j=1}^{m} d_{t-1}^j q_t^j)} \leq (1 + \Delta CPI_t)(1 - X_t)(1 + 2\%)(1 + S_t) \pm B_t \pm DUOS_t$$

Where each tariff class has up to 'm' components, and where:

d_t^j is the proposed price for component 'j' of the tariff class for year t

2 REGULATORY REQUIREMENTS

d_{t-1}^{j} is the price charged for component 'j' of the tariff class in year t–1

q_{t}^{j} is the forecast quantity of component 'j' of the tariff class in year t

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}\right] - 1$$

CPI means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_t the smoothing factor determined in accordance with the PTRM as approved in the AER's Distribution Determination, and annually revised for the return on debt update in accordance with the formula specified in Appendix I of the AER's Distribution Determination calculated for the relevant year. If X>0, then X will be set equal to zero for the purposes of the side constraint

B_t is:

- The approved pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER, plus
- The D-factor amounts we the AER approve for 2013-14 (applies to Endeavour Energy's pricing proposal for the regulatory year 2015-16).

S_t is the STPIS factor sum of the raw s-factors for all reliability of supply and customer service parameters (as applicable) to be applied in year t. S_t for 2015-16 and 2016-17 are set at zero.

$DUOS_t$ is an annual adjustment factor related to the balance of the DUOS unders and overs account with respect to regulatory year t.

In accordance with clause 6.18.6 of the Rules, the side constraint does not apply in the first regulatory year of the regulatory control period and will therefore not apply to tariff classes in 2015-16.

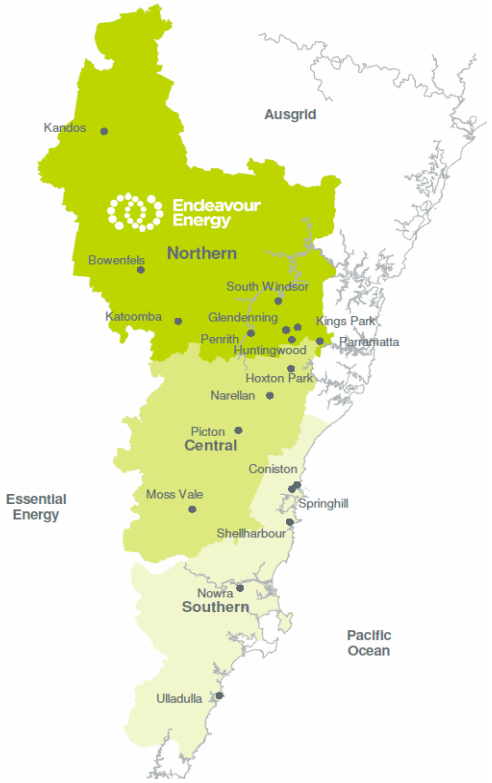
3 BUSINESS CHARACTERISTICS

3.1 Business Characteristics

Endeavour Energy is a New South Wales state owned energy corporation serving some of the largest and fastest growing regional economies in the state. We manage a $5.6 billion electricity distribution network for 926,800 customers, or 2.2 million people, in households and businesses across a network area spanning 24,500 square kilometers in Sydney's Greater West, the Blue Mountains, Southern Highlands, Illawarra and South Coast of NSW.

Our network includes Sydney's North-West and South-West Growth Centres – areas similar to Wollongong and Canberra in size, and earmarked by the NSW Government for current and future housing development. Between them, these centres cover 27,000 hectares and will become home to more than 500,000 people in more than 180,000 dwellings.

Figure 3a: Endeavour Energy's franchise area



3.2 How our network transports electricity

The NSW electricity supply sector involves generation, transmission, distribution and retail sellers.

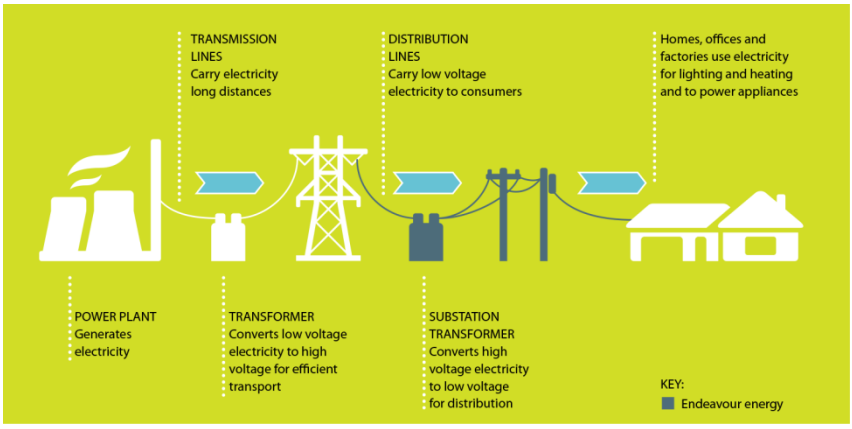
Endeavour Energy builds and operates an electrical network that transports electricity from the high voltage transmission network to customers' homes and businesses.

Power plants typically generate electricity a long way from homes and businesses. It is transported at high voltages to bulk supply points over the transmission system operated by TransGrid. From here Endeavour Energy transports to our sub transmission and zone substations.

Zone substations, which typically service entire suburbs, transform electricity to mid voltage levels (11kV).

When electricity arrives at the location where it is required, distribution substations further transform the electricity to 415V or 240V. Power lines then carry low voltage electricity to consumers for their home, office and factory use.

Figure 3b: Electricity industry structure, Source: AEMO



4 TARIFF CLASSES

4.1 Regulatory Requirements

In accordance with clause 6.18.3 of the Rules, Endeavour Energy must satisfy the following criteria with respect to tariff classes:

> *6.18.3 Tariff classes*
>
> *(a) A pricing proposal must define the tariff classes into which retail customers for direct control services are divided.*
>
> *(b) Each customer for direct control services must be a member of 1 or more tariff classes.*
>
> *(c) Separate tariff classes must be constituted for retail customers to whom standard control services are supplied and retail customers to whom alternative control services are supplied (but a customer for both standard control services and alternative control services may be a member of 2 or more tariff classes).*
>
> *(d) A tariff class must be constituted with regard to:*
>
> *(1) the need to group retail customers together on an economically efficient basis; and*
>
> *(2) the need to avoid unnecessary transaction costs.*

4.2 Summary of Tariff Classes

Endeavour Energy's network use of system tariffs represent an aggregation of distribution use of system tariffs, climate change fund recovery tariffs and transmission cost recovery tariffs. Endeavour Energy's tariff classes are applicable to all of the above mentioned tariffs.

The following table provides a summary of Endeavour Energy's standard control services tariff classes[1].

[1] Endeavour Energy's Alternative Control Services are discussed in Chapter 12 of this pricing proposal

4 TARIFF CLASSES

Table 4.1 – Endeavour Energy's network tariff classes

Tariff Class	Pricing Options	Connection Characteristics
Low Voltage Energy	Residential Block Tariff	LV Connection; <160MWh pa
	Residential Time of Use	LV Connection; <160MWh pa
	General Supply Block Tariff	LV Connection; <160MWh pa
	General Supply Time of Use	LV Connection; <160MWh pa
	Controlled Load 1	LV Connection; <160MWh pa
	Controlled Load 2	LV Connection; <160MWh pa
Low Voltage Demand	LV TOU Demand	LV Connection; >160MWh pa
	LV TOU Demand Transition Tariff	LV Connection; >160MWh pa
High Voltage Demand	HV TOU Demand	HV Connection
	Individually Calculated	HV Connection; >40GWh pa or 10MVA[2]
Subtransmission Demand	ST TOU Demand	ST Connection
	Individually Calculated	ST Connection; >40GWh or 10MVA[3]
Inter-Distributor Transfer Demand	Individually Calculated	Distributor Transfer
Unmetered Supply	Streetlighting	Unmetered
	Traffic Control Signals	Unmetered
	Unmetered Supply	Unmetered
	Nightwatch	Unmetered

[2] For more details refer to section 4.5

[3] For more details refer to section 4.6

4 TARIFF CLASSES

Endeavour Energy has defined tariff classes with respect to:

- The nature and extent of customers' usage;
- The nature of the customers' connection to the network; and
- 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.

Endeavour Energy believes that this definition of tariff classes represents an economically efficient tariff class assignment that will avoid the need for unnecessary transaction costs.

4.3 Low Voltage Energy Tariff Class

Residential block tariff – N70

The residential network use of system block tariff (BT) applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh; and
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V.

In addition, the residential BT is predominantly used for one or more of the following purposes:

- Private dwellings;
- Boarding and lodging houses, being any house in which three or more persons exclusive of the family of the proprietor thereof are lodged for hire or reward from week to week or for more than a week;
- Retirement villages;
- Residential sections of nursing homes and hospitals;
- Residential sections of educational institutions;
- Children's homes;
- Approved baby health centres, day nurseries and kindergartens;
- Churches, mosques, temples etc., being buildings or properties which are used principally for public worship or partly for public worship and partly for educational purpose; or
- Approved caravan sites.

The residential BT is applied where the connection point has an accumulation (basic or disc - Type 6) meter or an interval meter that is read as a type 6 meter.

The residential BT comprises the following components:

- A Network Access Charge ($pa); and
- Three variable energy components consisting of:
  - a First Block Rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh) up to and including 1,000 kWh per quarter; and
  - a Second Block Rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh) from 1,000 kWh per quarter up to an including 1,750 kWh per quarter.
  - a Third Block Rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh) above 1,750 kWh per quarter.

4 TARIFF CLASSES

Residential time of use (type 5) tariff – N705

The residential network use of system time of use (type 5) tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and
- A type 5 interval meter that records 30 minute intervals.

The residential time of use (type 5) tariff applies to a property, which is predominantly used for one or more of the purposes set out in section 4.3 at a connection point with a time of use meter from which interval meter data is obtained. Type 5 tariffs are applicable to supply points with a type 5 (manually read interval) meter installed.

The installation of a type 5 meter capable of recording 30 minute interval data is payable by the customer. The residential time of use (type 5) tariff comprises the following components:

- A Network Access Charge ($pa); and
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.

The time of day period definitions are outlined in Appendix J.

Residential time of use tariff – N706

The residential network use of system time of use tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and

A type 6 meter that records a single “peak”, “shoulder” and “off peak” interval per billing period. The residential time of use tariff applies to a property, which is predominantly used for one or more of the purposes set out in section 4.3.1 at a connection point with a time of use meter from which interval meter data is obtained.

The installation of a type 6 meter capable of recording TOU meter data is payable by the customer. The residential time of use tariff comprises the following components:

- A Network Access Charge ($pa); and
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.

4 TARIFF CLASSES

The time of day period definitions are outlined in Appendix J.

General supply block tariff – N90

The general supply network use of system block tariff (BT) applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V.

The general supply BT applies to low voltage electricity used for any purpose other than Residential, at a connection point with an accumulation meter or an interval meter that is read as a type 6 meter.

The general supply BT comprises the following components:

- A Network Access Charge ($pa); and
- Two variable energy components consisting of:
  - a First Block Rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh) up to and including 2,500 kWh per quarter; and
  - a Second Block Rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh) above 2,500 kWh per quarter.

General supply time of use (type 5) – N845

The general supply network use of system time of use (type 5) tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and
- The interval meter records 30 minute intervals.

The general supply time of use (type 5) tariff applies to a property, which is predominantly used for any purpose other than residential at a connection point with a time of use meter from which interval meter data is obtained. Type 5 tariffs are applicable to supply points with a type 5 (manually read interval) meter installed.

The installation of a type 5 meter capable of recording 30 minute interval data is payable by the customer. The general supply time of use (type 5) tariff comprises the following components:

- A Network Access Charge ($pa); and
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.

The time of day period definitions are outlined in Appendix J.

4 TARIFF CLASSES

General supply time of use – N84

The general supply network use of system time of use tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; andA type 6 interval meter that records a single “peak”, “shoulder” and “off peak” interval per billing period.

The general supply time of use tariff applies to a property, which is predominantly used for any purpose other than residential at a connection point with a time of use meter from which interval meter data is obtained.

The installation of a type 6 meter capable of recording TOU meter data is payable by the customer.
The general supply time of use tariff comprises the following components:

- A Network Access Charge ($pa); and
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.

The time of day period definitions are outlined in Appendix J.

Controlled load tariffs – N50 and N54

A control load network use of system tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is less than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and
- A residential or general supply tariff also applies.

A controlled load tariff applies where electricity load is separately metered and controlled at a connection point with an accumulation meter.

- Controlled Load 1 applies where specified appliances are controlled by our equipment so that supply may not be available between 7:00am and 10:00pm; and
- Controlled Load 2 applies where our equipment controls approved specified appliances so that electricity is available for restricted periods not exceeding a total of 17 hours in any period of 24 hours.

Switching times will be managed to minimise network investment and meet customer needs for the load being controlled.

Customers with a Controlled Load relay are entitled to a controlled load network price only if all of the following conditions are met:

- Controlled Load consumption is separately metered using the same type of meter as the uncontrolled portion of a customer's load;

- Controlled Load consumption and uncontrolled load consumption is always synchronously read, i.e. on the same day; and
- The Controlled Load is operated by our load control systems or time switches.

A controlled load tariff is applicable only to approved appliances as detailed in Endeavour Energy's Network Price List.

The controlled load 1 and 2 tariffs comprise of the following components:

- A Network Access Charge ($pa); and
- An Energy rate, expressed on a ¢/kWh basis, to be applied to electricity consumption (kWh).

4.4 Low Voltage Demand Tariff Class

Low voltage time of use demand – N19

The low voltage network use of system time of use demand tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is greater than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and
- There exists a time of use meter, from which both interval meter energy and demand data is obtained.

The low voltage time of use demand tariff comprises the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

The time of day and season definitions are outlined in Appendix J.

Transitional time of use – N89

The transitional network use of system time of use tariff applies to customer connection services supplied to the connection point where:

- Total electricity consumption, per financial year, is greater than 160MWh;
- Electricity is supplied at a voltage level defined as Low Voltage (LV) - nominally 230/400 V; and
- There exists a time of use meter, from which at a minimum interval meter energy data is obtained.

4 TARIFF CLASSES

The Transitional time of use tariff applies to those customers on a Low Voltage Energy Tariff Class tariff who have been identified as consuming in excess of 160MWh per annum, and therefore requiring a demand based tariff, but cannot be directly transferred to the low voltage time of use demand tariff due to a lack of metering capable of supporting the demand based tariff or the expected bill impact of a direct transition to low voltage time of use demand is deemed excessive.

The transitional time of use tariff comprises the following components:

- A Network Access Charge ($pa); and
  - Three variable energy components consisting of a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.

The time of day period definitions are outlined in Appendix J.

4.5 High Voltage Demand Tariff Class

High voltage time of use demand – N29

The high voltage network use of system time of use demand tariff applies to customer connection services supplied to the connection point where electricity is supplied at a voltage level defined as High Voltage (HV) - nominally 12.7 kV SWER, 11 or 22 kV.

The high voltage time of use demand tariff comprises the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

The time of day and season definitions are outlined in Appendix J.

Individually calculated high voltage time of use demand tariffs

Individually calculated high voltage network use of system time of use demand tariffs may apply to customer connection services supplied to the connection point where:

- Electricity is supplied at a voltage level defined as High Voltage (HV) - nominally 12.7 kV SWER, 11 or 22 kV; and

- Electricity consumption has been equal to or greater than 100 GWh in total for the 36 months preceding the application; or
- Electricity consumption has been equal to or greater than 40 GWh per annum in each of the two financial years preceding the application; or
- Monthly peak demand has been equal to or greater than 10 MVA for 24 of the 36 months preceding the application.

Endeavour Energy may assign an individually calculated high voltage time of use demand tariff to any connection point in circumstances such as, but not limited to:

- The need to recover investment associated with stranded or dedicated assets, or other cost caused to Endeavour Energy by the customer at that *connection point*, which may otherwise not be recovered under the high voltage time of use demand tariff; and
- Endeavour Energy agrees to assign an individually calculated high voltage time of use demand tariff following an application from the customer, or a retail supplier acting on their behalf, to be assigned to an individually calculated high voltage time of use demand tariff.

Individually calculated high voltage time of use demand tariffs comprise the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

The time of day and season definitions are outlined in Appendix J.

4.6 Subtransmission Voltage Demand Tariff Class

Subtransmission time of use demand – N39

The subtransmission network use of system time of use demand tariff applies to customer connection services supplied to the connection point where electricity is supplied at a voltage level defined as Sub-Transmission (ST) - 33, 66 or 132 kV.

The subtransmission time of use demand tariff comprises the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;

  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

The time of day and season definitions are outlined in Appendix J.

Individually calculated subtransmission voltage tariffs

Individually calculated subtransmission network use of system time of use demand tariffs may apply to customer connection services supplied to the connection point where:

- Electricity is supplied at a voltage level defined as Sub-Transmission (ST) - 33, 66 or 132 kV; and
- Electricity consumption has been equal to or greater than 100 GWh in total for the 36 months preceding the application; or
- Electricity consumption has been equal to or greater than 40 GWh per annum in each of the two financial years preceding the application; or
- Monthly peak demand has been equal to or greater than 10 MVA for 24 of the 36 months preceding the application.

Endeavour Energy may assign an individually calculated subtransmission time of use demand tariff to any connection point in circumstances such as, but not limited to:

- The need to recover investment associated with stranded or dedicated assets, or other cost caused to Endeavour Energy by the customer at that *connection point*, which may otherwise not be recovered under the subtransmission time of use demand tariff; and
- Endeavour Energy agrees to assign an individually calculated subtransmission time of use demand tariff following an application from the customer, or a retail supplier acting on their behalf, to be assigned to an individually calculated high voltage time of use demand tariff.

Individually calculated subtransmission time of use demand tariffs comprise the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

4 TARIFF CLASSES

The time of day and season definitions are outlined in Appendix J.

4.7 Inter-Distributor Transfer Tariff Class

Inter-distributor transfer network use of system tariffs are calculated on an individual basis and are specifically applied to electricity transferred through the Endeavour Energy network on behalf of Ausgrid and Essential Energy.

Inter-distributor transfer tariffs comprise the following components:

- A Network Access Charge ($pa);
- Three variable energy components consisting of:
  - a Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Peak period;
  - a Shoulder Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Shoulder period; and
  - an Off-Peak Energy rate, expressed on a ¢/kWh basis, to be applied to the consumption of electricity in the Off-Peak period.
- Two variable demand components consisting of:
  - a High-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the High-Season Peak period; and
  - a Low-Season Peak Demand rate, expressed on a $/maximum kVA/month basis, applied to the consumption of electricity in the Low-Season Peak period.

The time of day and season definitions are outlined in Appendix J.

4.8 Unmetered Supply Tariff Class

Tariff N99 comprises two variable energy components consisting of:

- a First Block Rate, expressed on a ¢/kWh basis, to be applied to calculated electricity consumption (kWh) up to and including 2,500 kWh per quarter; and
- a Second Block Rate, expressed on a ¢/kWh basis, to be applied to calculated electricity consumption (kWh) above 2,500 kWh per quarter.

Endeavour Energy also offers specific unmetered tariffs for:

- streetlighting connection points;
- traffic control signal lights connection points; and
- nightwatch connection points.

The streetlighting, traffic control signal light and nightwatch tariffs all comprise an energy rate, expressed on a ¢/kWh basis, to be applied to calculated electricity consumption (kWh).

Energy consumption is calculated using the appropriate algorithm in the applicable Metrology Procedure.

5 NETWORK TARIFF STRATEGY

5.1 Network Tariff Objectives

To provide a high-level framework for network tariff strategy development, Endeavour Energy has adopted the following network pricing objectives:

- Move toward prices that better reflect the underlying costs of supplying network capacity; and
- Constrain average distribution price increases to no more than the rate of inflation.

5.2 Network Tariff Strategy

Consistent with the network tariff objectives outlined above, Endeavour Energy's network tariff strategy aims to:

- Constrain our share of a customer's bill to no more than the rate of inflation for (at least) the next five years;
- Align the largely fixed costs of the network and revenues;
- Provide outcomes that recognise the impacts that pricing decisions have on our customers;
- Pass through the full cost of TransGrid's transmission services and preserve transmission price signals where possible; and
- Explore tariff based demand management opportunities, including voluntary time of use tariffs, and tariffs that target network constraints on a locational basis.

Starting from 1 July 2015, the AER's approach to metering charges will change so that metering costs previously recovered through both fixed and variable charges in overall network tariffs will now be recovered through separate metering charges charged on a fixed "cents per day" basis.

For the residential tariff in 2015-16, Endeavour Energy is proposing to implement a 3 block structure with declining prices while continuing to keep its share of customer bill increases to CPI or below. This will help make distribution charges more stable and predictable for customers in the longer term.

Endeavour Energy has consulted with stakeholders in regard to the residential tariff structure change. In particular, with retailers through a retailer forum followed up by a retailer information pack and with our Customer Consultative Committee.

5.3 Changes from the Previous Regulatory Year

In accordance with clause 6.18.2(b)(8) of the Rules, Endeavour Energy's 2015-16 Initial Pricing Proposal must 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.

Endeavour Energy proposes to move the residential tariff from a two block structure to a three block structure. The new block structure will take effect 1 July 2015.

Endeavour Energy is not proposing any other changes to the structure of network tariffs in 2015-16.

5 NETWORK TARIFF STRATEGY

5.4 Changes within the Regulatory Year

In accordance with clause 6.18.2(b)(5) of the Rules, Endeavour Energy's 2014-15 Initial Pricing Proposal must 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.

This section sets out the nature and basis of any variation or adjustment to our tariffs that could occur during the course of 2015-16.

Endeavour Energy has decided to appeal the AER's final determination, and in the event that aspects of this appeal are upheld, Endeavour Energy believes that it is consistent with the NEO[4] to:

- Adjust tariffs during the course of 2015-16 to minimise the step change in prices on 1 July 2016.
- To propose an adjustment approach in the annual pricing proposal to ensure that our customers, retailers and other market participants make informed investment and consumption decisions.

Endeavour Energy's proposed approach to adjusting the interim tariffs during the course of 2015-16 is set out below:

- To limit the scope of adjustment during the course of 2015-16 to only the DUOS component of the interim tariffs.
- To mark-up the interim tariffs to unwind reduction in prices received on 1 July 2015, but only to the extent that the weighted NUOS price change for our tariffs over the entire year does not exceed CPI.
- Irrespective of the magnitude of the mark-up to the interim tariffs during the course of 2015-16, Endeavour Energy will ensure that this adjustment to the level of charging parameters results in the least distortion to efficient consumption patterns.
- To implement the variation to the interim tariffs within 20 business days of the latter of the publication of the order instructing the AER to vary the AER Final Determination or the remaking of the determination consequent to a Tribunal order.
- Endeavour Energy proposes to return the additional DUOS revenue earned by Endeavour Energy as a result of the application of a mark-up to the interim tariffs during the course of 2015-16 to customers via the operation of the overs and unders in 2016-17. This approach will result in a lessening of the required step-change in prices to eliminate the gap between revenue recovered from tariffs and the new annual revenue requirement.

[4] National Electricity Objective

6 NETWORK USE OF SYSTEM TARIFFS

Calculation of Network Use of System Tariffs

Endeavour Energy's network use of system (NUOS) tariffs represent the aggregation of distribution use of system (DUOS) tariffs, climate change fund (CCF) recovery tariffs and transmission cost recovery (TCR) tariffs. The tariffs include the allowed movement in the consumer price index and are exclusive of GST.

In accordance with the AER's Final Distribution Determination, metering service charges have been removed from Standard Control Service DUOS effective 2015-16. As such, the 2015-16 NUOS charges proposed in this chapter are exclusive of metering service charges.

These 2015-16 prices are interim pending outcomes of a possible appeal of the AER Final Determination (as discussed in section 5.4 above). In the event that an appeal is successful, an adjustment to tariffs may occur during the course of the year to minimise the step change in prices on 1 July 2016.

6.1 Low Voltage Energy Tariff Class

Residential block tariff – N70

The following table provides the proposed interim prices for the default residential block tariff for 2015-16. N70 is Endeavour Energy's primary residential tariff with over 99.9% of residential customers charged using this tariff.

Table 6.1 – Proposed 2015-16 residential block tariff

Charging Parameter	Existing NUOS Tariff 2014-15[5]	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	130.8525	119.3160	-8.8%
First Block Energy Charge (c/kWh)	10.8934	9.7212	-10.8%
Second Block Energy Charge (c/kWh)	10.8934	9.1315	-16.2%
Third Block Energy Charge (c/kWh)	12.4941	8.0407	-35.6%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N70 customers in 2015-16. It also proposes reducing the existing NUOS price differential from 15% to -17% between the first and third block. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

Residential time of use (type 5) – N705

The following table provides the proposed interim prices for the residential time of use tariff (type 5) for 2015-16. N705 is an optional residential time of use tariff with less than 0.1% of residential customers charged using this tariff.

[5] The 2014/15 prices are presented in the equivalent 2015/16 proposed tariff structure format to enable comparisons with 2015/16 proposed prices.

6 NETWORK USE OF SYSTEM TARIFFS

Table 6.2 – Proposed 2015-16 residential time of use (type 5) tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	315.6885	181.4994	-42.5%
Peak Energy Charge (c/kWh)	18.8334	13.6078	-27.7%
Shoulder Energy Charge (c/kWh)	10.9871	9.0091	-18.0%
Off Peak Energy Charge (c/kWh)	4.8669	4.6059	-5.4%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N705 customers in 2015-16. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

Residential time of use – N706

The following table provides the proposed interim prices for the residential time of use tariff for 2015-16. N706 is an optional residential time of use tariff with less than 0.1% of residential customers charged using this tariff.

Table 6.3 – Proposed 2015-16 residential time of use tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	205.6775	181.4994	-11.8%
Peak Energy Charge (c/kWh)	18.8334	13.6078	-27.7%
Shoulder Energy Charge (c/kWh)	10.9871	9.0091	-18.0%
Off Peak Energy Charge (c/kWh)	4.8669	4.6059	-5.4%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N706 customers in 2015-16. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

General supply block tariff – N90

The following table provides the proposed interim prices for the default general supply block tariff for 2015-16. N90 is Endeavour Energy's primary general supply tariff with approximately 97.4% of general supply customers charged using this tariff.

6 NETWORK USE OF SYSTEM TARIFFS

Table 6.4 – Proposed 2015-16 general supply block tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	186.9530	170.7024	-8.7%
First Block Energy Charge (c/kWh)	9.7650	8.8182	-9.7%
Second Block Energy Charge (c/kWh)	11.5226	9.6910	-15.9%

All prices in the above table are exclusive of GST

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N90 customers in 2015-16. It also proposes reducing the existing NUOS price differential from 18% to 10%. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

General supply time of use – N84

The following table provides the proposed interim prices for the general supply time of use tariff for 2015-16. Approximately 2.1% of general supply customers are charged using the N84 tariff.

Table 6.5 – Proposed 2015-16 general supply time of use tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	321.6015	281.0514	-12.6%
Peak Energy Charge (c/kWh)	16.4165	14.5734	-11.2%
Shoulder Energy Charge (c/kWh)	10.7803	9.6154	-10.8%
Off Peak Energy Charge (c/kWh)	5.0841	4.6047	-9.4%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N84 customers in 2015-16. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

6 NETWORK USE OF SYSTEM TARIFFS

General supply time of use (type 5) – N845

The following table provides the proposed interim prices for the general supply time of use tariff (type 5) for 2015-16. Approximately 0.5% of general supply customers are charged using the N845 tariff.

Table 6.6 – Proposed 2015-16 general supply time of use (type 5) tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	421.6115	281.0514	-33.3%
Peak Energy Charge (c/kWh)	16.4165	14.5734	-11.2%
Shoulder Energy Charge (c/kWh)	10.7803	9.6154	-10.8%
Off Peak Energy Charge (c/kWh)	5.0841	4.6047	-9.4%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit the average customer DUOS increase to CPI or below for N845 customers in 2015-16 as consumption charging components are brought into alignment with N84. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

Controlled load tariffs – N50 and N54

The following table provides the proposed interim prices for the controlled load 1 tariff for 2015-16.

Table 6.7 – Proposed 2015-16 controlled load 1 tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	14.60	9.882	-32.3%
Energy Charge (c/kWh)	0.6419	0.5849	-8.9%

All prices in the above table are exclusive of GST.

The following table provides the proposed interim prices for the controlled load 2 tariff for 2015-16.

Table 6.8 – Proposed 2015-16 controlled load 2 tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	14.60	9.882	-32.3%
Energy Charge (c/kWh)	2.8417	2.6744	-5.9%

All prices in the above table are exclusive of GST.

6 NETWORK USE OF SYSTEM TARIFFS

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N50 and N54 customers in 2015-16. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS and TCR tariffs and their differing proportional representation in each NUOS energy price.

The lower prices for controlled load tariffs provide an incentive for customers to save money by electing to switch eligible equipment to the tariff, while at the same time reducing peak demand on the network.

6.2 Low Voltage Demand Tariff Class

Low voltage time of use demand – N19

The following table provides the proposed interim prices for the low voltage time of use demand tariff for 2015-16.

Table 6.9 – Proposed 2015-16 low voltage time of use demand tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	6,573.6500	6,734.4000	2.4%
Peak Energy Charge (c/kWh)	4.7047	4.0513	-13.9%
Shoulder Energy Charge (c/kWh)	3.2436	3.0021	-7.4%
Off Peak Energy Charge (c/kWh)	1.3777	1.2982	-5.8%
High Season Peak Demand Charge ($/kVA/Month)	14.2174	10.3026	-27.5%
Low Season Peak Demand Charge ($/kVA/Month)	13.2098	9.5791	-27.5%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N19 customers in 2015-16. Variances in the rate of change in the energy and demand charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each of the NUOS energy and demand prices.

Transitional time of use – N89

The following table provides the proposed interim prices for the transitional time of use tariff for 2015-16.

Table 6.10 – Proposed 2015-16 transitional time of use tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	6,573.6500	6,734.4000	2.4%
Peak Energy Charge (c/kWh)	16.3078	15.6558	-4.0%
Shoulder Energy Charge (c/kWh)	9.1669	9.0334	-1.5%
Off Peak Energy Charge (c/kWh)	1.7648	1.5934	-9.7%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N89 customers in 2015-16. Variances in the rate of change in the energy charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each NUOS energy price.

6.3 High Voltage Demand Tariff Class

High voltage time of use demand – N29

The following table provides the proposed interim prices for the high voltage time of use demand tariff for 2015-16.

Table 6.11 – Proposed 2015-16 high voltage time of use demand tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	10,877.0000	11,144.7000	2.5%
Peak Energy Charge (c/kWh)	3.4870	3.0125	-13.6%
Shoulder Energy Charge (c/kWh)	2.6851	2.4801	-7.6%
Off Peak Energy Charge (c/kWh)	1.1534	1.0845	-6.0%
High Season Peak Demand Charge ($/kVA/Month)	10.3721	8.6592	-16.5%
Low Season Peak Demand Charge ($/kVA/Month)	9.6569	8.0627	-16.5%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N29 customers in 2015-16. Variances in the rate of change in the energy and demand charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each of the NUOS energy and demand prices.

Individually calculated high voltage tariffs

The individually calculated high voltage NUOS tariffs have been provided to the AER on a confidential basis as Appendix E of this 2015-16 Initial Pricing Proposal on the basis that the tariffs contain customer specific data.

6.4 Subtransmission Voltage Demand Tariff Class

Subtransmission time of use demand – N39

The following table provides the proposed interim prices for the subtransmission time of use demand tariff for 2015-16.

Table 6.12 – Proposed 2015-16 subtransmission time of use demand tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	17,096.6000	17,520.4200	2.5%
Peak Energy Charge (c/kWh)	3.0868	2.5941	-16.0%
Shoulder Energy Charge (c/kWh)	2.3335	2.1333	-8.6%
Off Peak Energy Charge (c/kWh)	1.0660	0.9825	-7.8%
High Season Peak Demand Charge ($/kVA/Month)	7.8510	6.6053	-15.9%
Low Season Peak Demand Charge ($/kVA/Month)	7.3783	6.1960	-16.0%

All prices in the above table are exclusive of GST.

Endeavour Energy proposes to limit DUOS price increases for each charging parameter to CPI or below for N39 customers in 2015-16. Variances in the rate of change in the energy and demand charges reflect the different rates of change in the DUOS, TCR and CCF tariffs and their differing proportional representation in each of the NUOS energy and demand prices.

Individually calculated subtransmission voltage tariffs

The individually calculated subtransmission voltage NUOS tariffs have been provided to the AER on a confidential basis as Appendix E of this 2015-16 Initial Pricing Proposal on the basis that the tariffs contain customer specific data.

6.5 Inter-Distributor Transfer Tariff Class

The inter-distributor NUOS tariffs have been provided to the AER on a confidential basis as Appendix E to this 2015-16 Initial Pricing Proposal on the basis that the tariffs contain customer specific data.

6.6 Unmetered Supply Tariff Class

The following table provides the proposed interim prices for the unmetered supply NUOS tariff (N99) for 2015-16.

6 NETWORK USE OF SYSTEM TARIFFS

Table 6.13 – Proposed 2015-16 unmetered supply tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	0.0000	0.0000	0.0%
First Block Energy Charge (c/kWh)	9.7650	8.8182	-9.7%
Second Block Energy Charge (c/kWh)	9.7650	8.8182	-9.7%

All prices in the above table are exclusive of GST.

The following table provides the proposed interim prices for the street lighting NUOS tariff (SL) for 2015-16.

Table 6.14 – Proposed 2015-16 street lighting tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	0.0000	0.0000	0.0%
First Block Energy Charge (c/kWh)	9.2194	7.9833	-13.4%

All prices in the above table are exclusive of GST.

The following table provides the proposed interim prices for the traffic control signal lights NUOS tariff (SL) for 2015-16.

Table 6.15 – Proposed 2015-16 traffic control signal lights tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	0.0000	0.0000	0.0%
First Block Energy Charge (c/kWh)	9.7650	8.8182	-9.7%

All prices in the above table are exclusive of GST.

The following table provides the proposed interim prices for the nightwatch NUOS tariff (NW) for 2015-16.

6 NETWORK USE OF SYSTEM TARIFFS

Table 6.16 – Proposed 2015-16 nightwatch tariff

Charging Parameter	Existing NUOS Tariff 2014-15	Proposed Interim NUOS Tariff 2015-16	% change
Network Access Charge ($pa)	0.0000	0.0000	0.0%
First Block Energy Charge (c/kWh)	6.0833	5.9405	-2.3%

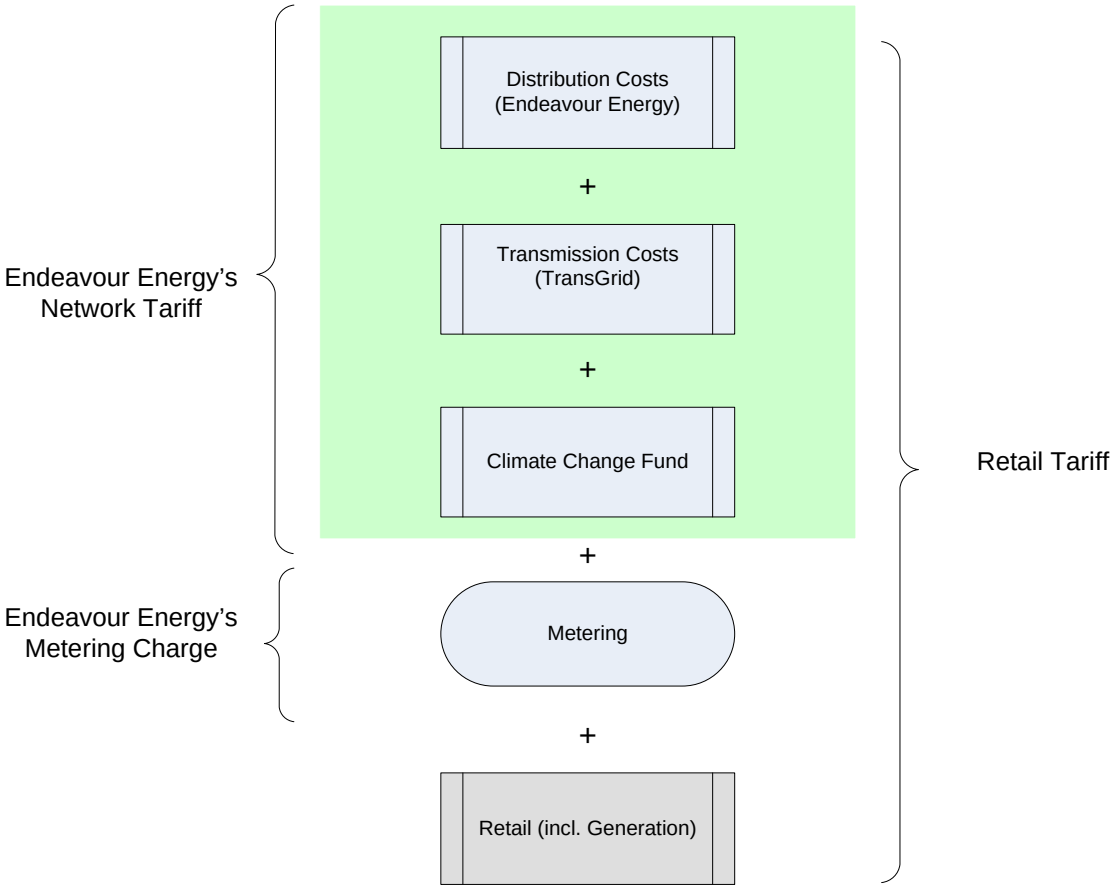
All prices in the above table are exclusive of GST.

7 CUSTOMER IMPACTS

7.1 Endeavour Energy's Network Tariffs

Endeavour Energy's network use of system tariffs are an aggregation of distribution tariffs, transmission cost recovery tariffs and climate change fund recovery tariffs. From 1 July 2015, Endeavour Energy's metering charges have been unbundled from the distribution component of the network tariffs and are charged separately. Retailers generally pass through network tariffs to end use customers and add the costs of purchasing electricity from the wholesale market and other retail-related costs of selling electricity[6] as illustrated in Figure 7.1 below. The customer impacts examined in this chapter relate only to network charges and do not include assumptions relating to retail charges.

Figure 7.1 – Costs recovered through Endeavour Energy's network tariffs



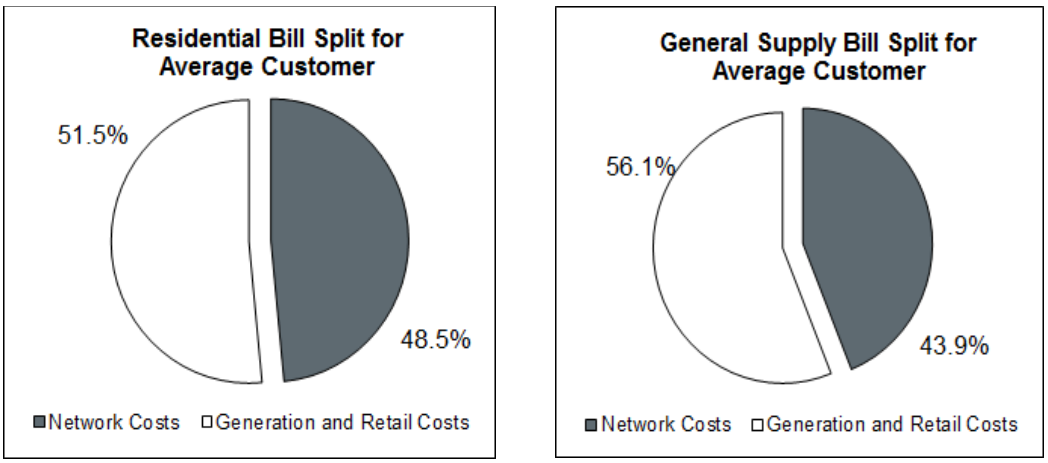
By way of example, figure 7.2 below provides the proportional network and retail components of an average regulated residential BT and general supply BT retail bill[7].

[6] Including retail operating costs, retail margin and wholesale fees.

[7] Average regulated retail bills are calculated on the basis of the 2014/15 regulated Retail price for residential BT and general supply BT tariff customers in the Endeavour Energy network consuming 5,000kWh and 10,000kWh respectively.

7 CUSTOMER IMPACTS

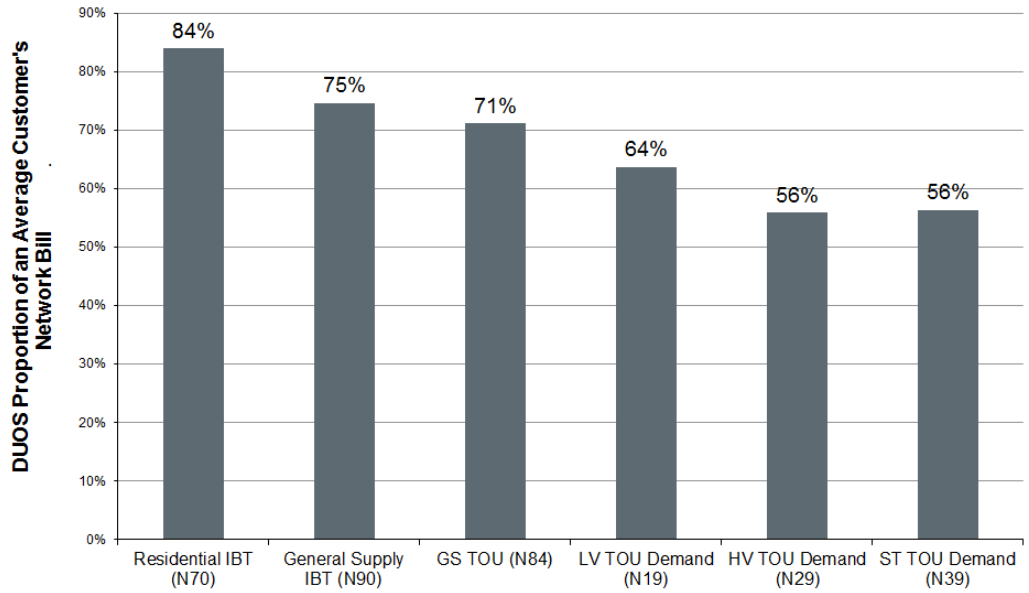
Figure 7.2 – Average regulated residential and general supply BT bills by network and retail component – 2014-15



As demonstrated in figure 7.2 above the NUOS charges represent less than 50% of the total electricity price in each case.[8]

Figure 7.3 below demonstrates that as average customer size increases and customers connect to higher voltages on the Endeavour Energy network the Distribution proportion of the total Network bill decreases and the proportional weighting of Transmission Cost Recovery and Climate Change Fund Recovery tariffs increases.

Figure 7.3 – Average DUOS proportion of a Network Bill – 2015-16



[8] Over 99% of Endeavour Energy's customers are charged for electricity on the basis of either residential BT (N70) or general supply BT (N90) network tariff. Not all customers are supplied on the basis of the regulated retail tariff.

7 CUSTOMER IMPACTS

The DUOS tariffs contained in the overall NUOS charges have been calculated in accordance with the revenue cap constraint as specified in Attachment 14 – Control mechanism of the AER's Distribution Determination. In nominal terms, the maximum allowable revenue in DUOS charges for 2015-16 is $785.8 million, as provided in Table 7.1 below:

Table 7.1 – Revenue cap compliance factors

Compliance Item		2015-16 Criteria ($'000)
Annual smoothed expected revenue (t-1)	**AR_{t-1}**	**$949,455**
CPI		2.49%
X-Factor		17.29%
S-Factor		0.00%
Annual smoothed expected revenue (t)	**AR_t**	**$804,876**
B-Factor adjustment:	**B_t**	**$7,236**
- Approval pass through amount (t)		$0
- Sum of incentive scheme adjustments (t)		$7,236[9]
DUOS unders/overs adjustment (t)	**$DUOS_t$**	**($26,319)**
Total Annual Revenue (t)	**TAR_t**	**$785,793**

Endeavour Energy's transmission cost recovery (TCR) tariffs are designed to recover transmission related costs, including TransGrid's transmission use of system (TUOS) charges, avoided transmission payments made to embedded generators and adjustments to balance Endeavour Energy's transmission overs and unders account.

Endeavour Energy's transmission related costs are calculated to decrease by 11.29% in 2015-16. The following table provides a breakdown of the drivers of the changes in Endeavour Energy's 2015-16 transmission costs.

[9] In accordance with Attachment 14 – Control mechanism of the AER's Distribution Determination, the D-factor amount of $7.2m approved by the AER for 2013-14 applies to Endeavour Energy's pricing proposal for the 2015-16 regulatory year.

7 CUSTOMER IMPACTS

Table 7.2 – Changes in 2015-16 transmission costs

Transmission Cost	2015-16 Change
A. Change in transmission related payments (a + b)	**-7.37%**
- Impact of change in transmission revenues payable to TransGrid (a)	-7.37%
- Impact of change in avoided TUOS payments to embedded generators (b)	0.00%
B. Change required to balance transmission overs and unders account	**-4.23%**
Total change in transmission costs ((1+A)*(1+B))-1	**-11.29%**

The customer impacts presented in the following section are calculated using Endeavour Energy's proposed NUOS tariffs plus Endeavour Energy's standard Metering Service Charges (MSC) for the low voltage non demand tariffs. NUOS tariffs include changes in CPI, DUOS, transmission cost recovery tariffs, climate change fund recovery. Historically metering charges were included in the low voltage non demand DUOS tariffs but effective from 1 July 2015 will be separately charged.

All customer impacts presented in this chapter arising from NUOS and standard metering price changes are GST exclusive and have been calculated on the basis that historic customer energy consumption levels and patterns are indicative of 2015-16 consumption levels and patterns.

The distribution of impacts is provided where the number of customers on the tariff is sufficient and the data is available to provide a meaningful analysis.

7.2 Low Voltage Energy Tariff Class

Residential block tariff – N70

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the residential block tariff[10].

Table 7.3 – Customer impact residential block tariff

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
2,000	348.72	328.53	-5.8%
5,000*	675.52	614.27	-9.1%
7,000	893.39	796.90	-10.8%
10,000	1,268.21	1,038.12	-18.1%
15,000	1,892.92	1,440.15	-23.9%

[10] Customer distribution based on historic (2013/14) data

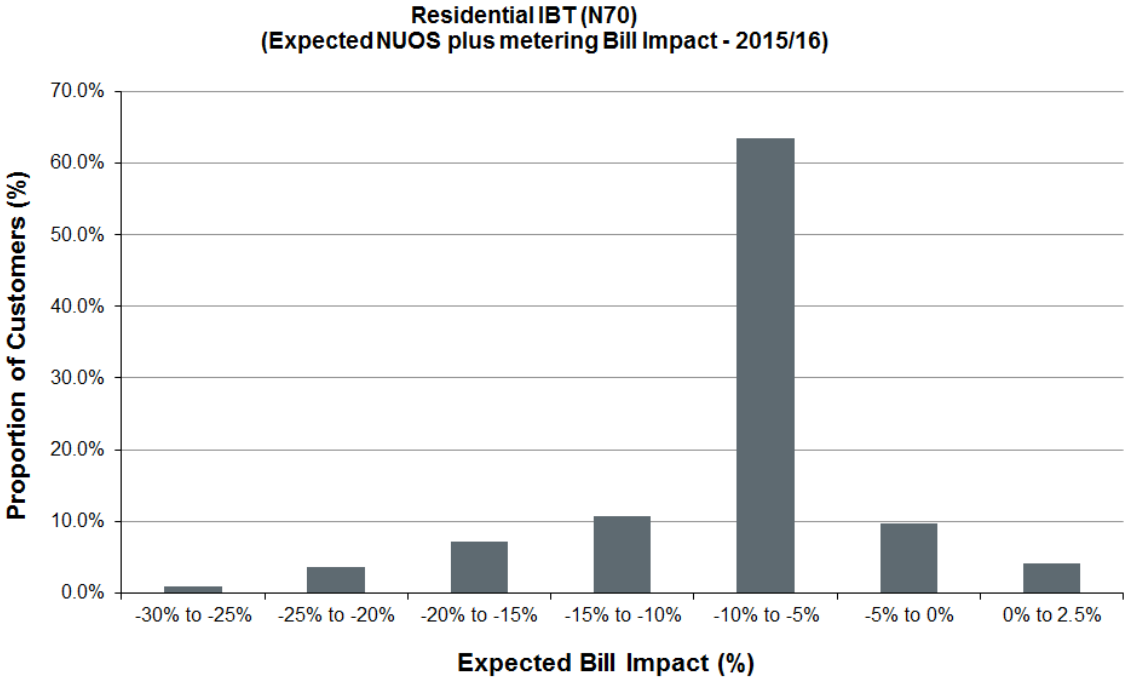
7 CUSTOMER IMPACTS

All indicative bill outcomes in the above table include the MSC and are exclusive of GST.

(*) Approximate annual consumption of an average sized customer.

The following figure shows the impact distribution of the proposed interim network price change for customers on the residential block tariff.

Figure 7.4 – Expected residential block tariff NUOS bill impact distribution



Residential time of use (type 5) – N705

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the residential time of use (type 5) tariff.

Table 7.4 – Customer impact residential time of use (type 5)

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
5,000	749.07	656.88	-12.3%
10,000	1,182.45	1,015.07	-14.2%
30,000	2,915.98	2,447.82	-16.1%
50,000	4,649.50	3,880.57	-16.5%
70,000	6,383.02	5,313.32	-16.8%

All indicative bill outcomes in the above table include the MSC and are exclusive of GST.

7 CUSTOMER IMPACTS

Residential time of use – N706

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the residential time of use tariff.

Table 7.5 – Customer impact residential time of use

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
5,000	639.06	568.97	-11.0%
10,000	1,072.44	927.16	-13.5%
30,000*	2,805.96	2,359.91	-15.9%
50,000	4,539.49	3,792.66	-16.5%
70,000	6,273.01	5,225.41	-16.7%

All indicative bill outcomes in the above table include the MSC and are exclusive of GST
(*) Approximate annual consumption of an average sized customer

General Supply block tariff – N90

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the general supply block tariff.

Table 7.6 – Customer impact general supply block tariff

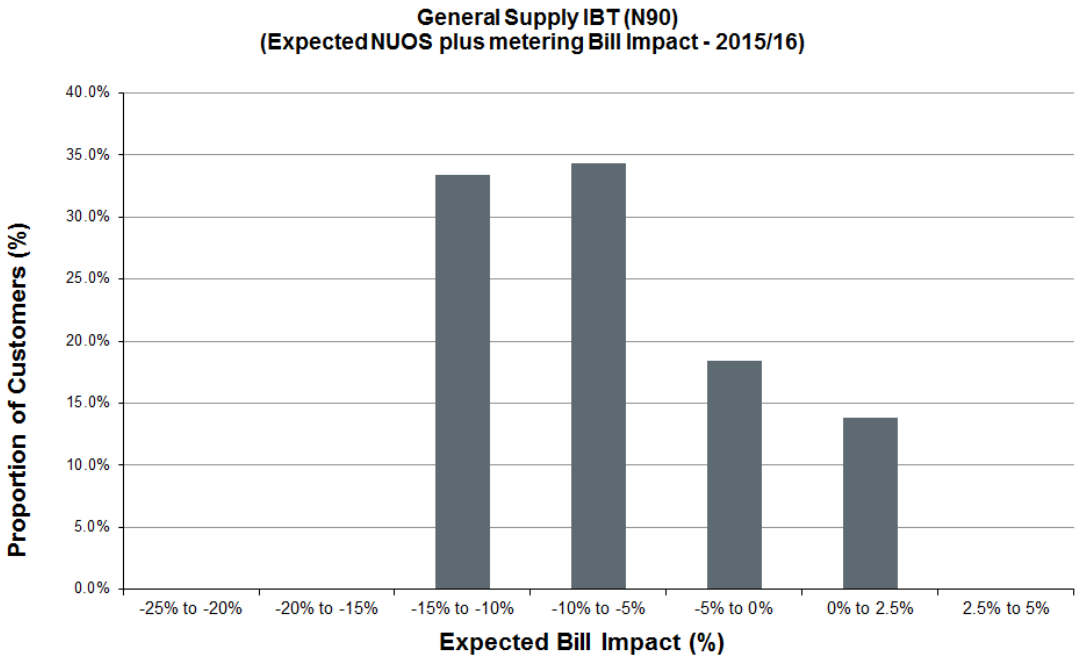
Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
5,000	675.20	632.51	-6.3%
10,000(*1)	1,163.45	1,073.42	-7.7%
23,000(*2)	2,661.39	2,333.25	-12.3%
40,000	4,620.23	3,980.72	-13.8%
60,000	6,924.75	5,918.92	-14.5%

All indicative bill outcomes in the above table include the MSC and are exclusive of GST
*(*1) Approximate annual consumption of the median customer*
*(*2) Approximate annual consumption of an average sized customer*

The following figure shows the impact distribution of the proposed interim network price change for customers on the general supply block tariff[11].

[11] Customer distribution based on historic (2013/14) data

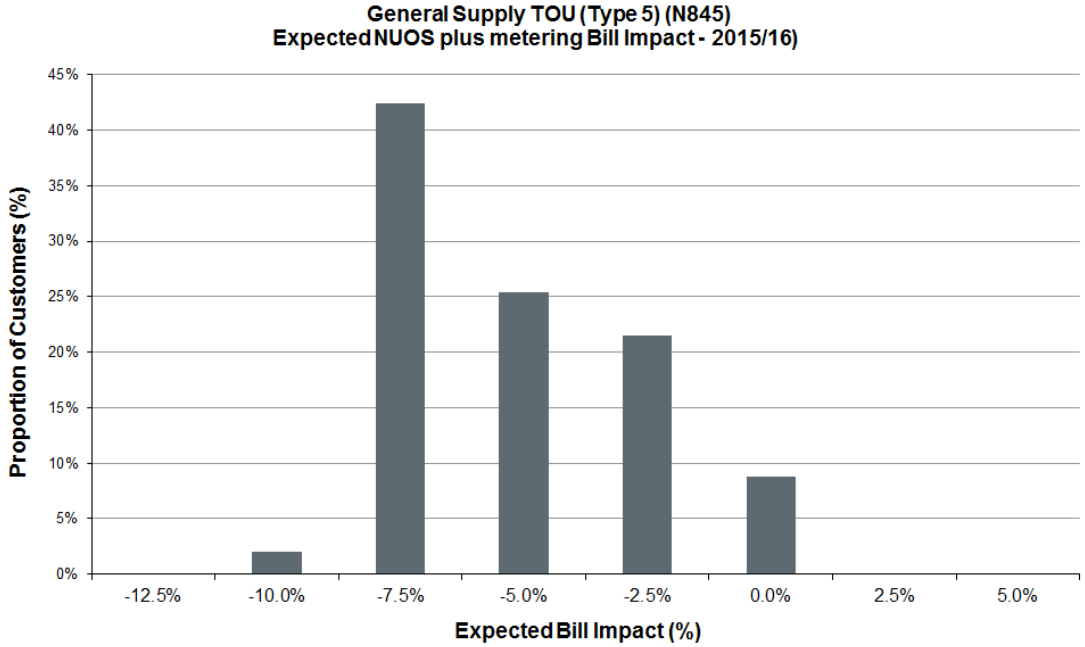
Figure 7.5 – Expected general supply block tariff NUOS bill impact distribution



General supply time of use (type 5) – N845

The following figure shows the impact distribution of the proposed interim network price change for customers on the general supply time of use (type 5) tariff.

Figure 7.6 – Expected general supply time of use (type 5) NUOS bill impact distribution

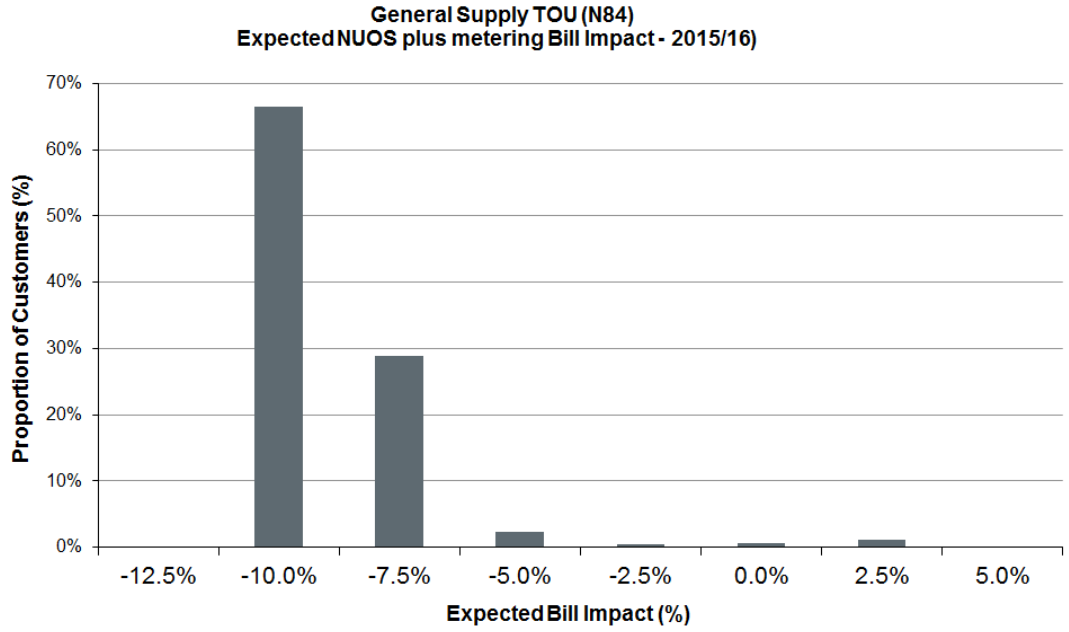


7 CUSTOMER IMPACTS

General supply time of use – N84

The following figure shows the impact distribution of the proposed interim network price change for customers on the general supply time of use tariff.

Figure 7.7 – Expected general supply time of use NUOS bill impact distribution



Controlled load tariffs – N50 and N54

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the controlled load 1 tariff.

Table 7.7 – Customer impact Controlled Load 1

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	21.02	20.78	-1.1%
3,000*	33.86	32.48	-4.1%
5,000	46.70	44.18	-5.4%
10,000	78.79	73.42	-6.8%

All indicative bill outcomes in the above table include the MSC and are exclusive of GST
(*) Approximate annual consumption of an average sized customer

The following table shows the expected network bill impacts of the proposed network price change for customers on the controlled load 2 tariff.

7 CUSTOMER IMPACTS

Table 7.8 – Customer impact Controlled Load 2

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	43.02	41.68	-3.1%
3,000*	99.85	95.16	-4.7%
5,000	156.69	148.65	-5.1%
10,000	298.77	282.37	-5.5%

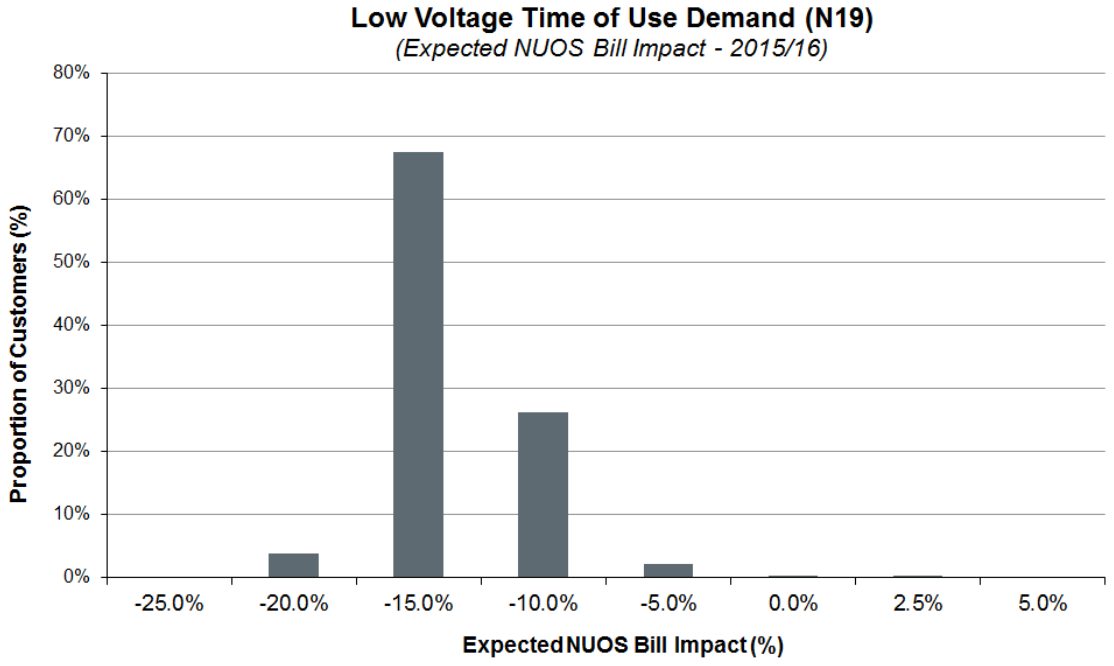
All indicative bill outcomes in the above table include the MSC and are exclusive of GST
(*) Approximate annual consumption of an average sized customer

7.3 Low Voltage Demand Tariff Class

Low voltage time of use demand – N19

The following figure shows the impact distribution of the proposed interim network price change for customers on the low voltage time of use demand tariff.

Figure 7.8 – Expected low voltage time of use demand NUOS bill impact distribution

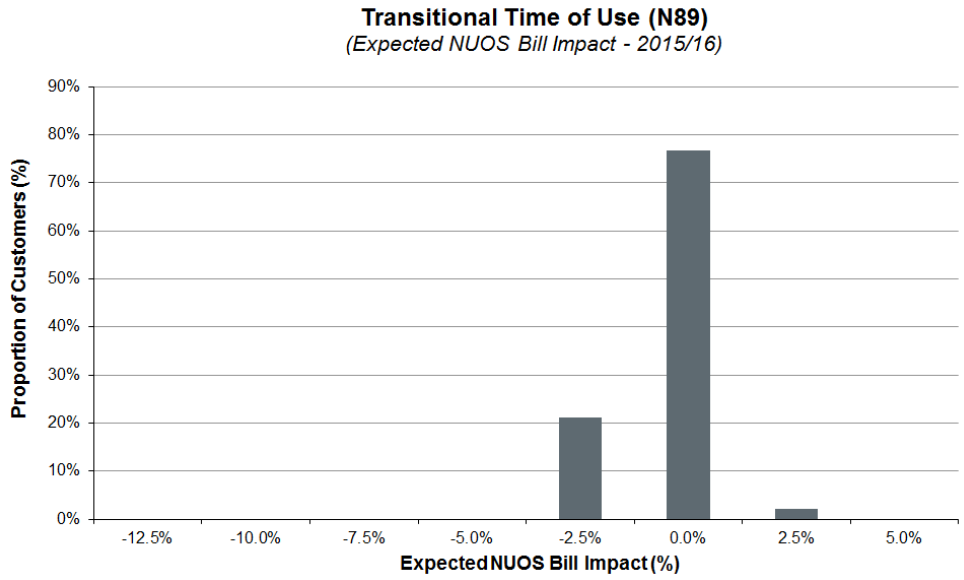


7 CUSTOMER IMPACTS

Transitional time of use – N89

The following figure shows the impact distribution of the proposed interim network price change for customers on the transitional time of use tariff.

Figure 7.9 – Expected transition time of use NUOS bill impact distribution

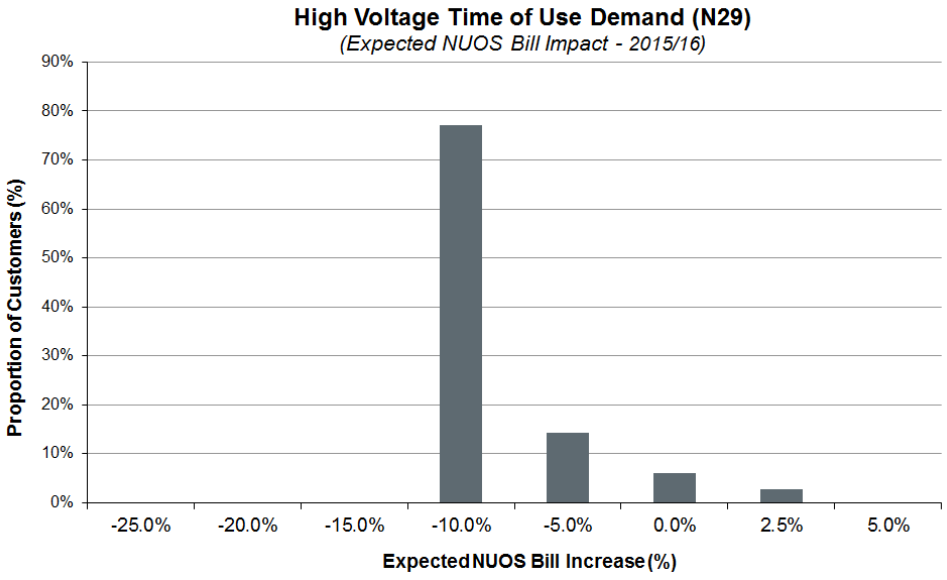


7.4 High Voltage Demand Tariff Class

High voltage time of use demand – N29

The following figure shows the impact distribution of the proposed interim network price change for customers on the high voltage time of use demand tariff.

Figure 7.10 – Expected high voltage time of use demand NUOS bill impact distribution



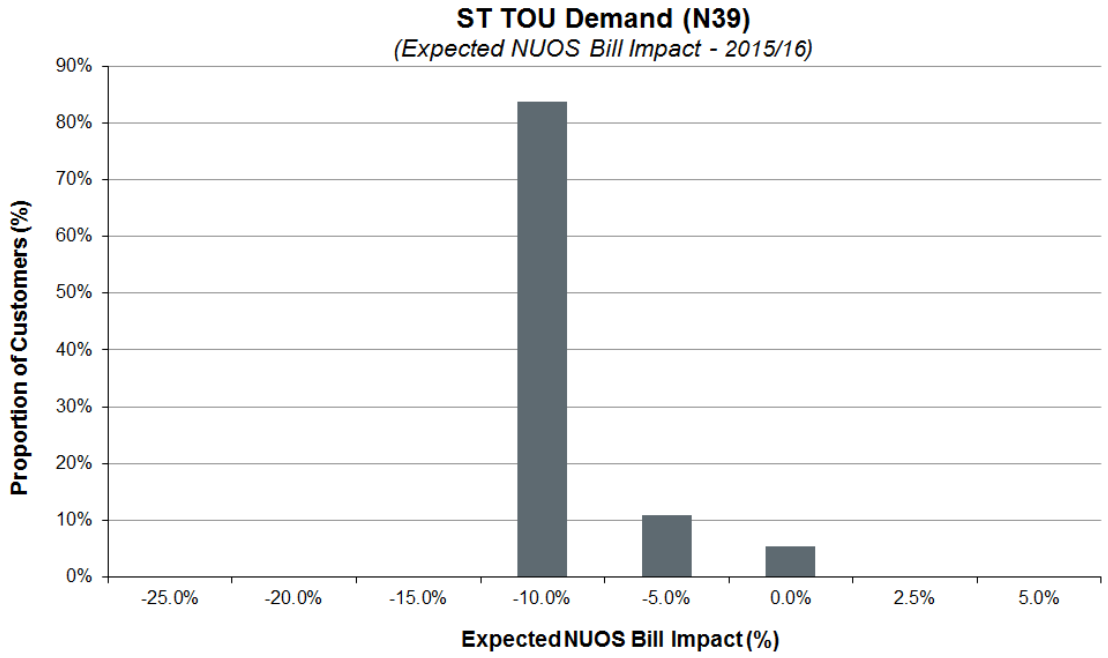
7 CUSTOMER IMPACTS

7.5 Subtransmission Voltage Demand Tariff Class

Subtransmission time of use demand – N39

The following figure shows the impact distribution of the proposed interim network price change for customers on the subtransmission time of use demand tariff.

Figure 7.11 – Expected subtransmission time of use demand NUOS bill impact distribution



7.6 Unmetered Supply Tariff Class

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the unmetered supply tariff.

Table 7.9 – Customer impact of the unmetered supply tariff (N99)

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	97.65	88.18	-9.7%
3,000	292.95	264.55	-9.7%
5,000	488.25	440.91	-9.7%
10,000	976.50	881.82	-9.7%
20,000	1,953.00	1,763.64	-9.7%

All indicative bill outcomes in the above table are exclusive of GST.

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the unmetered street lighting tariff.

7 CUSTOMER IMPACTS

Table 7.10 – Customer impact unmetered street lighting tariff (SL)

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	92.19	79.83	-13.4%
3,000	276.58	239.50	-13.4%
5,000	460.97	399.17	-13.4%
10,000	921.94	798.33	-13.4%
20,000	1,843.88	1,596.66	-13.4%

All indicative bill outcomes in the above table are exclusive of GST

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the unmetered traffic signal tariff.

Table 7.11 – Customer impact unmetered traffic signal tariff (TL)

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	97.65	88.18	-9.7%
3,000	292.95	264.55	-9.7%
5,000	488.25	440.91	-9.7%
10,000	976.50	881.82	-9.7%
20,000	1,953.00	1,763.64	-9.7%

All indicative bill outcomes in the above table are exclusive of GST

The following table shows the expected network bill impacts of the proposed interim network price change for customers on the unmetered nightwatch tariff.

Table 7.12 – Customer impact nightwatch (NW)

Annual Consumption	NUOS Bill ($pa)		Change in NUOS Bill (%)
	2014-15	2015-16	
1,000	60.83	59.41	-2.3%
3,000	182.50	178.22	-2.3%
5,000	304.17	297.03	-2.3%
10,000	608.33	594.05	-2.3%
20,000	1,216.66	1,188.10	-2.3%

All indicative bill outcomes in the above table and are exclusive of GST.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

8.1 2015-16 Compliance Requirements

The following table summarises the 2015-16 network pricing compliance criteria.

Table 8.1 – Revenue cap compliance factors

Compliance Item		2015-16 Criteria ($'000)
Annual smoothed expected revenue (t-1)	**AR_{t-1}**	**$949,455**
CPI		2.49%
X-Factor		17.29%
S-Factor		0.00%
Annual smoothed expected revenue (t)	**AR_t**	**$804,876**
B-Factor adjustment:	**B_t**	**$7,236**
- Approval pass through amount (t)		$0
- Sum of incentive scheme adjustments (t)		$7,236[12]
DUOS unders/overs adjustment (t)	**$DUOS_t$**	**($26,319)**
Total Annual Revenue (t)	**TAR_t**	**$785,793**

8.2 Compliance with the Revenue Cap

The following table demonstrates that Endeavour Energy's 2015-16 Initial Pricing Proposal complies with the revenue cap constraint outlined in the AER's Distribution Determination and based on the tariff classes outlined in Chapter 4 of this Proposal. The table also satisfies clause 6.18.2(b)(4) of the Rules.

[12] In accordance with Attachment 14 – Control mechanism of the AER's Distribution Determination, the D-factor amount of $7.2m approved by the AER for 2013-14 applies to Endeavour Energy's pricing proposal for the 2015-16 regulatory year.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Table 8.2 – Compliance with the revenue cap[13]

Tariff Class	Weighted Average Proposed Revenue 2014-15 ($'000)	Weighted Average Proposed Revenue 2015-16 ($'000)
Low Voltage Energy	668,376	561,563
Low Voltage Demand	198,170	155,500
High Voltage Demand	37,175	31,222
Subtransmission Demand	28,106	23,591
Inter-Distributor Transfers	6,224	5,228
Unmetered Supply	10,163	8,688
Revenue from Tariffs	**948,215**	**785,793**
Miscellaneous and Monopoly Fees	9,569	n/a
Total	**957,784**	**785,793**
Total Annual Revenue (TAR_t)		**785,793**
Is the proposed DUOS revenue within the Revenue Cap TAR?		**Yes**

8.3 Compliance with tariff class constraints

In accordance with clause 6.18.6 of the Rules, the side constraints do not apply in the first regulatory year of the regulatory control period and will therefore not apply to tariff classes in 2015-16.

Endeavour Energy notes however, that the weighted average revenue change by tariff class is below CPI or 2.49% for all tariff classes.

[13] Weighted average revenues have been calculated using forecast 2015/16 volumes.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Table 8.3 – Average Tariff Class Movement[14]

Tariff Class	Weighted Average Existing Revenue 2014-15 ($'000)	Weighted Average Proposed Revenue 2015-16 ($'000)	Change in Weighted Average Revenue (%)
Low Voltage Energy	668,376	561,563	-15.98%
Low Voltage Demand	198,170	155,500	-21.53%
High Voltage Demand	37,175	31,222	-16.01%
Subtransmission Demand	28,106	23,591	-16.06%
Inter-Distributor Transfers	6,224	5,228	-16.00%
Unmetered Supply	10,163	8,688	-14.51%

8.4 Pricing Principles

In accordance with 6.18.5 of the Rules Endeavour Energy must comply with the following pricing principles:

6.18.5 Pricing principles

(a) For each tariff class, the revenue expected to be recovered should lie on or between:

(1) an upper bound representing the stand alone cost of serving the customers who belong to that class; and

(2) a lower bound representing the avoidable cost of not serving those customers.

(b) A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class:

(1) must take into account the long run marginal cost for the service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates; and

(2) must be determined having regard to:

(i) transaction costs associated with the tariff or each charging parameter; and

(ii) whether customers of the relevant tariff class are able or 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.

[14] Weighted average revenues have been calculated using forecast 2015/16 volumes.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

8.5 Compliance with Avoidable and Stand Alone Cost Requirements

Definition of Avoidable and Stand Alone Cost

As part of its 2009-10 Pricing Proposal, Endeavour Energy engaged CEG to provide an external review of Endeavour Energy's avoidable and stand alone cost calculation methodology and model. As part of this review, CEG provided Endeavour Energy with two definitions of avoidable and stand alone cost.

Option 1:

The first hypothesises the different costs associated with building a new network with and without the relevant customer class. This approach ignores the sunk nature of the existing network and calculates costs as follows:

- **Avoidable cost for tariff class A** - total cost of building and operating the network that Endeavour Energy would design to serve all customers less total cost of building and operating the network that Endeavour Energy would design to serve all customers except those in tariff class A; and
- **Stand alone cost for tariff class A** - total cost of building and operating the network that Endeavour Energy would design to serve only the customers in tariff class A.

Option 2:

The second is to acknowledge the existence of the network as it presently stands today and to calculate standalone/avoidable costs taking the existing network design as a given. Under this approach costs are calculated as follows:

- **Avoidable cost for tariff class A** - total cost to Endeavour Energy of using the existing network to serve all customers less total cost to Endeavour Energy of using the existing network to serve all customers except those in tariff class A; and
- **Stand alone cost for tariff class A** - total cost to Endeavour Energy of using the existing network to serve only the customers in tariff class A.

CEG note that the second definition (Option 2) involves a more 'real world' definition of avoidable costs. Namely, it is the costs that would actually be avoided if a set of customers did not need to be served (rather than the hypothetical costs that would have been avoided if that set of customers had never existed).

The Rules are not prescriptive about the methodology used to calculate avoidable and stand alone cost. However, given a regulatory framework which recognises the existence and value of sunk costs and does not, in general, seek to conduct ex-post optimisation on the structure of the Distribution Network Service Provider's networks, one may reasonably conclude that the second method (Option 2) is consistent with the general approach set out in the Rules.

Consistent with the approach underpinning the 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 Annual Pricing Proposals submitted to the AER, Endeavour Energy has adopted the second method (Option 2) for this 2015-16 Initial Pricing Proposal, as detailed in the following section.

For the purposes of the 2009-10 Initial Pricing Proposal, CEG was satisfied that Endeavour Energy's:

- Methodology for calculating avoidable and stand alone costs; and
- The model used to calculate avoidable and stand alone costs at the *tariff class*.
- meet the requirements of section 6.18.5(a) of the Rules.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Endeavour Energy has maintained a consistent approach for this 2015-16 Initial Pricing Proposal. The CEG review of Endeavour Energy's avoidable and stand alone cost methodology and model is provided in Appendix K.

Avoidable and Stand Alone Cost Methodology

To estimate stand alone costs, Endeavour Energy's Regulatory Cost of Supply Model makes an allocation of all costs (network and overhead costs) to each tariff class. Through this allocation, the stand alone cost of serving each separate tariff class must sum to the standalone cost of serving all customers. The implicit assumption underlying this calculation is that there are no economies of scale or scope in the provision of electricity networks. Since it is clear that there are economies of scale and scope and that they are material, CEG concluded for the purposes of the 2009-10 Initial Pricing Proposal that Endeavour Energy's stand alone costs will be materially higher than those estimated in its model.

Similarly, Endeavour Energy's model makes an allocation of all 'direct' (or causative) costs to estimate the level avoidable costs for each tariff class. These do not include overheads such as motor vehicles and information technology systems but do include a full allocation of all network assets and network operating and maintenance costs. Again, this assumes that there are no economies of scale or scope in relation to network assets (since each tariff class must bear a proportional share of direct costs with the proportions summing to unity). In effect, the only costs that are not treated as avoidable are overheads. Taking into account the existence of such economies of scale, CEG concluded for the purposes of the 2009-10 Initial Pricing Proposal that Endeavour Energy's avoidable costs will be materially lower than those estimated in its model.

Given that Endeavour Energy's proposed revenues fall between the bounds of avoidable and stand alone cost as estimated in its Regulatory Cost of Supply Model, and for the reasons set out above, Endeavour Energy considers that the approach meets the Rule requirements. That is, amendments to Endeavour Energy's estimates as suggested by CEG would cause these bounds to widen, rather than to narrow. Given that Endeavour Energy already estimates that its revenues fit within these 'too narrow' bounds, Endeavour Energy concludes that revenues would similarly fall within the broader bounds that would more accurately reflect stand alone and avoidable costs.

Accordingly, Endeavour Energy considers that its pricing meets the requirements of section 6.18.5(a) of the Rules.

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Calculation of Avoidable and Stand Alone Cost

Table 8.4 – avoidable and stand alone cost calculation

Tariff Class	Expected DUOS Revenue ($'000)	Avoidable Cost ($'000)	Stand Alone Cost ($'000)	Between Avoidable and Stand Alone Cost?
Low Voltage Energy	561,563	372,598	731,247	Yes
Low Voltage Demand	155,500	33,609	392,257	Yes
High Voltage Demand	31,222	11,396	279,566	Yes
Subtransmission Demand	23,591	7,427	100,921	Yes
Inter-Distributor Transfers	5,228	2,115	95,609	Yes
Unmetered Supply	8,688	0	358,649	Yes

Endeavour Energy's network tariff classes lie within the subsidy free range whereby the expected DUOS revenue collected from each tariff class lies between the avoidable and stand alone costs of supply and therefore meet the requirements of section 6.18.5(a) of the Rules.

8.6 Long run marginal cost

External Review of the Long Run Marginal Cost Methodology

In 2005, Endeavour Energy commissioned National Economic Research Associates (NERA) to develop a report into the Long Run Marginal Cost (LRMC) of Electricity Distribution in Endeavour Energy's network area.

In preparing its 2009-10 Pricing Proposal, Endeavour Energy engaged CEG to provide an external review of Endeavour Energy's long run marginal cost methodology and model, both of which were developed on the basis of the NERA Report[15].

In that review CEG endorsed Endeavour Energy's:

- Methodology for calculating long run marginal cost; and
- The model used to calculate long run marginal cost by tariff *charging parameter*.

For the purpose of this 2015-16 Initial Pricing Proposal, Endeavour Energy has adopted the same methodology and model for LRMC, as set out below.

The CEG review of Endeavour Energy's LRMC Methodology and Model is provided in Appendix L.

[15] NERA (2005) Long Run Marginal Cost of Electricity Distribution - A Report for Integral Energy p 8-9

On 1 March 2011, Endeavour Energy (formerly known as Integral Energy Australia) completed the sale of its retail business (including the name Integral Energy Australia) to Origin Energy as part of the NSW Government's energy reform strategy. All references to Integral Energy are references to Endeavour Energy.

Marginal Cost Pricing

The principle of marginal cost plays a central role in the formulation of economically efficient prices. If prices are set below marginal cost, resources will be wasted in meeting customers' demands which cost more than the benefits customers derive from them; and if prices are set above marginal cost, then they will discourage purchases by customers which would have been valued more than the cost to society of supplying them.

NERA notes that marginal costs are often differentiated according to whether they correspond to the short or long run. The distinction between these two categories has to do not with any specific length of time, but rather with the factors of production that are variable. The short run refers to a situation in which the investment in plant and equipment is fixed. Capacity can be neither added nor removed, although it can be used to a greater or lesser extent.

The short run marginal cost of electricity distribution is the cost to society of a customer using existing capacity in the network at any point in time. This is generally very low unless the system is capacity constrained[16], and reflects the fact that the great majority of the costs of an electricity network provider are fixed in the short run and do not vary with the usage of the network. However, when the system is capacity constrained the marginal costs of usage can be very high.

It should be noted that these costs do not generally reflect increased costs to the network service provider but rather reflect the costs to society of "customer A" using the network and thereby preventing "customer B" from using the network. That is, when the system is constrained the costs of one customer using the network are equal to the benefits foregone by other customers who are unable to use the network.

These benefits foregone are generally measured as the maximum amount a customer who is constrained would have been willing to pay for the last available unit of capacity. By definition, this is equal to the market-clearing price for existing capacity. That is, the price at which existing capacity is rationed amongst potential users. When capacity is not constrained, as noted above, the market-clearing price is zero and therefore the short run marginal cost of congestion is also zero.

The long run refers to a situation in which the investment in plant and equipment is variable. Existing firms may add or remove capacity; firms may enter or exit the market. A long-run marginal cost therefore indicates how costs change with respect to output or capacity when all factors of production including plant and equipment are variable. The long run marginal cost then will relate broadly to the annualised cost of augmenting capacity (in the case of electricity, at a particular voltage, at a particular location, at a particular time), generally, per unit of additional capacity provided (i.e., kW or kVA).

The importance of efficient pricing for network utilities

NERA[17] note that the economies of scale or density applying to network utilities mean that supplying services at marginal cost may not be financially sustainable. This gives rise to a tension between economic efficiency and revenue adequacy. In such circumstances a firm differentiates its price so as to ensure:

- That the total quantity produced is as close as possible to the quantity that corresponds to the intersection of demand and marginal cost, while maintaining overall financial viability; and

[16] This abstracts from variable (demand related) operating and maintenance costs and, most significantly, the cost of electricity losses on the distribution system. The level of electricity losses imposed by a customer on the distribution system will also vary with the location of that customer in the network, the level of energy use by the customer and the level of capacity utilisation at the time of that energy use.

[17] NERA (2006), Distribution Pricing Rule Framework, *Network Policy Working Group*, p 9

- That any differences between average cost and marginal cost are recovered from those customers who have the least responsive demand (with respect to price movements) referred to as price elasticity.

The above approach to pricing enables DNSP's to recover their average costs while maintaining incentives to invest in maintaining and augmenting their networks.

In this case it is important that one charging parameter of the tariff reflects the marginal cost of supply (however defined), providing effective signals for allocative efficiency of existing capacity; and for a second charging parameter to recover the remaining costs required to ensure that the network service provider can recover the fixed costs of the network. It is important in structuring the tariff that the second charging parameter be levied so as to impose the least possible distortion to customers' consumption behaviour.

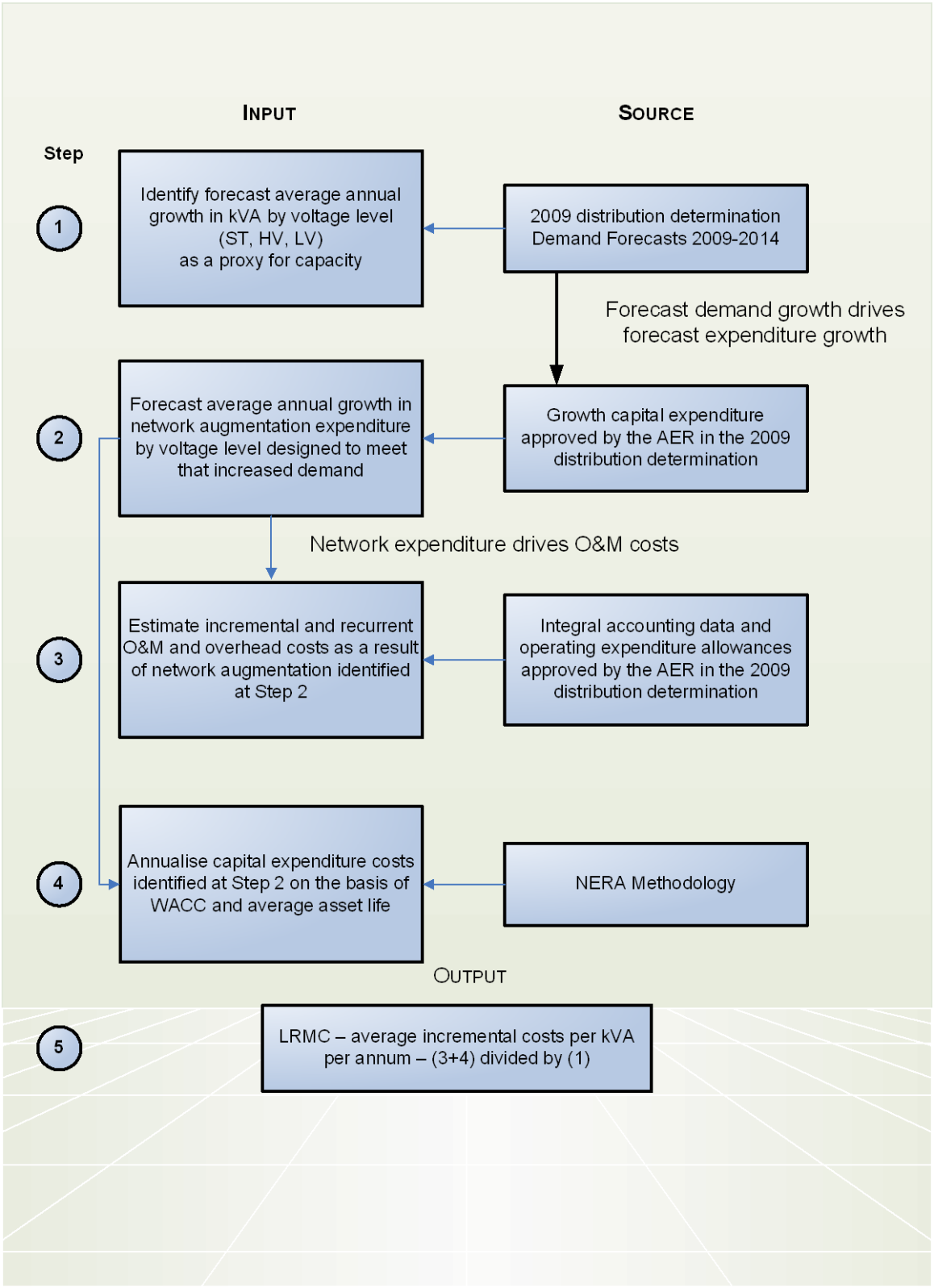
Long Run Marginal Cost Methodology

Endeavour Energy's long run marginal costs are calculated on a dollar per kVA per annum basis at the relevant voltage level. The methodology uses Endeavour Energy's current demand forecast and capital expenditure and operating expenditure forecasts.

The following schematic illustrates Endeavour Energy's methodology as advised by NERA and previously endorsed by CEG, to arrive at an estimate of Endeavour Energy's LRMC. The process has been divided into five separate steps:

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Figure 8.1: LRMC Methodology - National Economic Research Associates



8 COMPLIANCE WITH REGULATORY REQUIREMENTS

The following LRMC estimates represent the cost associated with meeting forecast growth in critical peak demand for apparent energy (kVA). Critical peak demand is any level of demand that, should it occur often enough, would trigger an increase in network augmentation under Endeavour Energy's network planning.

Table 8.5 – Voltage level LRMC calculation

Voltage Level	LRMC Calculation ($/kVA/pa)
Low Voltage	153.58
High Voltage	41.13
Subtransmission	29.29

It should be noted that the values for low voltage and high voltage already include the long run marginal cost of upstream (higher voltage) costs caused by consumption at the lower voltage level.
The formulas used to allocate the above LRMC by voltage into tariff charging parameter rates and the resultant LRMC tariffs by charging parameter have been provided to the AER on a confidential basis as Appendix B to this 2015-16 Initial Pricing Proposal.

Endeavour Energy considers that its 2015-16 Initial Pricing Proposal meets the LRMC requirements of section 6.18.5(b)(1) of the Rules as we take LRMC into account for each tariff charging parameter and use it as a guide for movements in our demand and peak energy pricing.

8.7 Transaction Costs

In accordance with clause 6.18.5(b)(2)(i) of the Rules, Endeavour Energy attempts to minimise any transaction costs arising from its network tariffs by limiting the complexity of the tariff structure and charging parameters within each tariff. The charging parameters applicable to each tariff are provided in Chapter 4 of this 2015-16 Initial Pricing Proposal while more detailed information of Endeavour Energy's tariffs and charging parameters are provided in the Network Price List available on the Endeavour Energy website.

Endeavour Energy has proposed one change to its tariff structure in 2015-16, with the Residential block tariff (N70) moving from a two block structure to a three block structure. Following retailer consultation, no feedback has been received that indicates that this change will lead to increased stakeholder transaction costs.

As three blocks is a common structure that is already widely used throughout NSW and the NEM, it is not anticipated that transaction costs will be increased as a result of the implementation of this 2015-16 Initial Pricing Proposal. In addition, sufficient lead time has been provided for retailers to make the required changes.

8.8 Response to Price Signals

In accordance with clause 6.18.5(b)(2)(ii) of the Rules, Endeavour Energy notes that efficiency gains of marginal cost pricing are realised when the tariff, based on the marginal cost of supply, induces a behavioural change in the customer[18]. To maximise this customer response Endeavour Energy signals the long run marginal cost of supply through those tariff charging parameters with the greatest price elasticity of demand, namely the variable consumption charges that are based on the customer's energy use and maximum demand.

[18] NERA (2006), Distribution Pricing Rule Framework, *Network Policy Working Group*, p 31 - 35

8 COMPLIANCE WITH REGULATORY REQUIREMENTS

Consistent with the principles of efficient pricing and in accordance with clause 6.18.5(c) of the Rules, Endeavour Energy recovers the shortfall between marginal cost and average cost from those charging parameters with the lowest price elasticity of demand, namely the fixed charging parameter, subject to consideration of customer impact. This minimises the distortion of the long run marginal cost signal inherent in Endeavour Energy's variable charging parameters and maximises the probability of efficiency gains realised through customer behavioural response to efficient price signals.

8.9 DUOS unders and overs account

Endeavour Energy has calculated the overs and under account balance for DUOS revenues in accordance with Appendix A of Attachment 14 of the AER's Final Distribution Determination.

Table 8.6 provides the forecast 2015-16 balance of Endeavour Energy's DUOS unders and overs account.

Table 8.6 – DUOS unders and overs account balance ($'000)

	2013-14 Year (t-2) Actual	2014-15 Year (t-1) Estimate	2015-16 Year (t) Forecast
Revenue from DUOS Charges	**0**	**981,554**	**785,793**
Less Smoothed revenues + pass throughs (a+b)	**0**	**956,890**	**812,112**
a) Smooth revenues AR(t)	0	949,455	804,876
b) Approved pass throughs (pass through)	0	7,435	7,236
Under/over recovery for regulatory year	**0**	**24,664**	**-26,319**
DUOS unders and overs account			
Nominal WACC (per cent)	10.02%	6.74%	6.68%
Opening Balance	0	0	25,482
Interest on opening balance	0	0	1,702
Under/over recovery for regulatory year	0	24,664	-26,319
Interest on under/over recovery for regulatory year	0	818	-865
Closing Balance	**0**	**25,482**	**0**

Endeavour Energy must achieve an expected zero balance on their DUOS unders and overs accounts in each forecast year in its annual pricing proposals in the 2015–19 regulatory control period.

9 CLIMATE CHANGE FUND

9.1 Regulatory Requirement

In accordance with clauses 6.18.2(b) (6A and 6B) and 6.18.7A (a,b,c) of the Rules:

6.18.2 Pricing proposals

(b) A pricing proposal must:

(6A) set out how jurisdictional scheme amounts for each approved jurisdictional scheme are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those amounts; and

(6B) describe how each approved jurisdictional scheme that has been amended since the last jurisdictional scheme approval date meets the jurisdictional scheme eligibility criteria.

6.18.7A Recovery of jurisdictional scheme amounts

Pricing proposal

A pricing proposal must provide for tariffs designed to pass on to customers a Distribution Network Service Provider's jurisdictional scheme amounts for approved jurisdictional schemes.

The amount to be passed on to customers for a particular regulatory year must not exceed the estimated amount of jurisdictional scheme amounts for a Distribution Network Service Provider's approved jurisdictional schemes adjusted for over or under recovery in accordance with paragraph (c).

The over and under recovery amount must be calculated in a way that:

- *subject to subparagraphs (2) and (3) below, is consistent with the method determined by the AER for jurisdictional scheme amounts in the relevant distribution determination for the Distribution Network Service Provider, or where no such method has been determined, with the method determined by the AER in the relevant distribution determination in respect of designated pricing proposal charges;*
- *ensures a Distribution Network Service Provider is able to recover from customers no more and no less than the jurisdictional scheme amounts it incurs; and*
- *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.*

9.2 Climate Change Fund Requirement

On 30 March 2015, the NSW Government provided Endeavour Energy with advice that the Climate Change Fund contribution amount will increase to $94,025,482 in 2015-16. Consistent with NSW Government direction in previous years, Endeavour Energy has assumed that no more than 25% of the Climate Change Fund contribution can be recovered from residential tariffs.

9.3 Climate Change Fund Recovery Tariff Setting Methodology

Climate Change Fund recovery tariffs have been in place since 1 July 2005 and are levied on the energy (kWh) based charging parameter of tariffs only. Existing tariffs are annually adjusted such that the weighted average price change for the climate change fund recovery portion of network price is evenly applied to all tariffs to achieve the required annual contribution amount (subject to the 25% cap placed by the NSW Government on residential tariff contributions to the fund).

9 CLIMATE CHANGE FUND

Endeavour Energy does not recover a contribution to the climate change fund from:

- controlled load tariffs as customers contribute to the fund through their primary tariff; or
- inter-distributor transfer tariffs as customers contribute to the fund through the tariffs offered by the destination distributor.

9.4 Climate Change Fund overs and unders account balance

Endeavour Energy has calculated the overs and under account balance for the Climate Change Fund amount in accordance with Appendix C of Attachment 14 of the AER's Final Distribution Determination.

Table 9.1 provides the forecast 2015-16 balance of Endeavour Energy's climate change fund overs and unders account.

Table 9.1 – Climate Change Fund overs and unders account balance ($'000)

	2013-14 Actual	2014-15 Expected	2015-16 Forecast
Revenue from Climate Change Fund charges	**92,887**	**99,773**	**91,020**
Climate Change Fund payments	94,432	93,651	94,025
Over (under) recovery for financial year	-1,545	6,122	-3,005
Unders and Overs account			
Nominal WACC (per cent)	10.02%	6.74%	6.68%
Semi-annual rate of interest	4.89%	3.32%	3.29%
Opening balance	-1,436	-3,200	2,909
Interest on opening balance	-144	-216	194
Under/over recovery for regulatory year	-1,545	6,122	-3,005
Interest on under/over recovery for regulatory year	-76	203	-99
Closing balance	**-3,200**	**2,909**	**0**

Endeavour Energy's Climate Change Fund recovery tariffs have been provided to the AER on a confidential basis as Appendix C to this 2015-16 Initial Pricing Proposal as they contain individual customer data.

10 TRANSMISSION COST RECOVERY TARIFFS

10.1 Transmission Costs

Endeavour Energy's transmission cost recovery (TCR) tariffs are designed to recover transmission related costs, including TransGrid's transmission use of system (TUOS) charges, avoided transmission payments made to embedded generators and adjustments to balance Endeavour Energy's transmission overs and unders account.

Endeavour Energy's transmission related costs are calculated to decrease by 11.29% in 2015-16. The following table provides a breakdown of the drivers of the changes in Endeavour Energy's 2015-16 transmission costs.

Table 10.1 – Change in 2013-14 transmission costs

Transmission Cost	2015-16 Increase
A. Change in transmission related payments (a + b)	-7.37%
- Impact of increase in transmission revenues payable to TransGrid (a)	-7.37%
- Impact of increase in avoided TUOS payments to embedded generators (b)	0.00%
B. Change required to balance transmission overs and unders account	-4.23%
Total change in transmission costs ((1+A)*(1+B))-1	**-11.29%**

10.2 Regulatory Requirement

Rule Requirements

In accordance with clause 6.18.7 of the Rules, and with respect to the recovery of charges for transmission use of system (TUOS) services, Endeavour Energy's 2015-16 Initial Pricing Proposal must satisfy the following criteria:

> *6.18.7 Recovery of designated pricing proposal charges*
>
> *(a) A pricing proposal must provide for tariffs designed to pass on to customers the designated pricing proposal charges to be incurred by the Distribution Network Service Provider.*
>
> *(b) The amount to be passed on to customers for a particular regulatory year must not exceed the estimated amount of the designated pricing proposal charges adjusted for over or under recovery in accordance with paragraph (c).*
>
> *(c) The over and under recovery amount must be calculated in a way that:*
>
> *(1) subject to subparagraphs (2) and (3) below, is consistent with the method determined by the AER in the relevant distribution determination for the Distribution Network Service Provider;*
>
> *(2) ensures a Distribution Network Service Provider is able to recover from 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 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 modified clauses 6.18.7A; or*

(3) recovered from another Distribution Network Service Provider.

Where:

Designated pricing proposal charges are defined under Chapter 10 of the Rules as:

Any of the following:

(a) charges for designated pricing proposal services;

(b) avoided Customer TUOS charges;

(c) charges for distribution services provided by another Distribution Network Service Provider, but only to the extent those charges comprise:

(1) charges incurred by that Distribution Network Service Provider for designated pricing proposal services; or

(2) charges for standard control services;

(d) charges or payments specified in rule 11.39.

Designated pricing proposal services are defined under Chapter 10 of the Rules as:

Any of the following services:

(a) prescribed exit services;

(b) prescribed common transmission services; and

(c) prescribed TUOS services.

10.3 Transmission cost recovery tariff methodology

The key principles of Endeavour Energy's Transmission Cost Recovery Tariff (TCR) Methodology are:

- Total TUOS allocated to network tariffs are aligned with the total estimated transmission charge to be paid by Endeavour Energy[19], adjusted for any overs and unders account balance;
- Transmission charges are allocated to network tariffs in a manner that reflects the cost drivers present in transmission pricing;
- Customers on an individually calculated tariff have transmission charges allocated in a manner that preserves the location and time signals of transmission pricing in accordance with the principles in Part J of chapter 6A of the *Rules*; and
- Network tariffs for smaller customer classes have transmission charges allocated on an energy basis, as location signals cannot be preserved in all cases due to metering limitations.

10.4 Transmission use of system overs and unders account balance

Endeavour Energy has calculated the overs and under account balance for TUOS revenues in accordance with Appendix B of Attachment 14 of the AER's Final Distribution Determination.

[19] Calculated using final transmission pricing received from TransGrid on 15 May 2014.

10 TRANSMISSION COST RECOVERY TARIFFS

The forecast 2015-16 balance of Endeavour Energy's transmission use of system overs and unders account is provided in table 10.2 below:

Table 10.2 – Transmission overs and unders account balance ($'000)

	2012-13 Actual	2013-14 Expected	2015-16 Forecast
Revenue from designated pricing proposal charges	**185,028**	**220,090**	**189,221**
Transmission Related Payments			
a) Transmission charges to be paid to TNSP's	189,439	211,269	195,458
b) Avoided TUOS payments	4,650	3,135	3,135
Total transmission related payments (a+b)	**194,088**	**214,404**	**198,593**
Under/over recovery for regulatory year	**-9,061**	**5,686**	**-9,372**
Unders and overs account for designated pricing proposal charges			
Nominal WACC (per cent)	10.02%	6.74%	6.68%
Semi-annual rate of interest	4.89%	3.32%	3.29%
Opening balance	11,363	2,998	9,074
Interest on opening balance	1,139	202	606
Under/over recovery for financial year	-9,061	5,686	-9,372
Interest on over/under recovery for regulatory year	-443	189	-308
Closing Balance	**2,998**	**9,074**	**0**

Endeavour Energy's transmission use of system cost recovery tariffs have been provided to the AER on a confidential basis as Appendix D to this 2015-16 Initial Pricing Proposal as they contain customer specific information.

11 CUSTOMER REASSIGNMENT

11.1 Regulatory Requirement

In accordance with clause 6.18.4 of the Rules, Endeavour Energy is governed by the following customer reassignment principles:

> *6.18.4 Principles governing assignment or re-assignment of customers to tariff classes and assessment and review of basis of charging*
>
> *(a) In formulating provisions of a distribution determination governing the assignment of retail customers to tariff classes or the re-assignment of retail customers from one tariff class to another, the AER must have regard to the following principles:*
>
> *(1) retail customers should be assigned to tariff classes on the basis of one or more of the following factors:*
>
> *(i) the nature and extent of their usage;*
>
> *(ii) the nature of their connection to the network;*
>
> *(iii) whether remotely-read interval metering or other similar metering technology has been installed at the retail customer's premises as a result of a regulatory obligation or requirement;*
>
> *(2) retail customers with a similar connection and usage profile should be treated on an equal basis;*
>
> *(3) however, retail 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.*
>
> *Note:*
>
> *If (for example) a customer is assigned (or reassigned) to a tariff class on the basis of the customer's actual or assumed maximum demand, the system of assessment and review should allow for the reassignment of a customer who demonstrates a reduction or increase in maximum demand to a tariff class that is more appropriate to the customer's load profile.*
>
> *(b) If the charging parameters for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged.*

11.2 Proposed Compulsory Re-Assignment of Customers from 1 July 2015

Endeavour Energy intends to compulsorily assign 456 customers with annual consumption in excess of 160 MWh pa from their existing general supply BT, general supply time of use, transitional time of use or demand time of use tariff to the appropriate demand time of use or transitional time of use tariff post 1 July 2015.

The customers targeted for re-assignment meet the following criteria:

- Have an annual consumption in excess of 160MWh pa;
- Have time of use metering capable of supporting the proposed tariff; and

11 CUSTOMER REASSIGNMENT

- The expected network bill impact of the reassignment to the destination tariff is either less than CPI or less than the bill impact the customer would have received had they stayed on their existing tariff.[20]

This reform proposal is consistent with Endeavour Energy's pricing policy of compulsory demand pricing for all customers with annual consumption greater than 160 MWh pa, which was introduced after significant public consultation on 1 July 2004.

A summary of the proposed compulsory re-assignment of customers is provided in the following table:

Table 11.1 – compulsory customer assignment

Origin Tariff	Proposed Tariff	Customers Assigned
General Supply BT	Transitional Time of Use	17
	Low Voltage time of use Demand	171
	High Voltage time of use Demand	1
General Supply Time of Use	Transitional Time of Use	4
	Low Voltage time of use Demand	78
	High Voltage time of use Demand	0
Transitional Time of Use	Low Voltage time of use Demand	185
	High Voltage time of use Demand	0
Low Voltage time of use Demand	High Voltage time of use Demand	0
Total		**456**

To be eligible for compulsory tariff re-assignment Endeavour Energy requires that the customer has metering installed that is capable of supporting the proposed tariff and that 2013-14 quantities are available in the form of the destination tariffs (ie peak, shoulder and off peak energy and demand tariff charging parameters).

Upon approval of the this 2015-16 Initial Pricing Proposal, and in accordance with Appendix D.3 of Attachment 14 of the AER's Final Distribution Determination, Endeavour Energy will write to the customer's retailer, who acts on the customers behalf, informing them of the proposed tariff reassignment.

The notification letter will provide the retailer with:

- The reasons for the reassignment;
- The criteria by which the customer was identified for transfer;
- The opportunity to object to the reassignment prior to its actioning; and
- Notification that an alternate dispute resolution process is available should the retailer be dissatisfied with Endeavour Energy's proposal.

[20] Bill impacts calculated on the basis of the 2013/14 annual consumption volume by customer.

12 ALTERNATIVE CONTROL SERVICES

The AER has classified the following categories of direct control services as alternative control services, with the form of control for all services being a price cap:

- Ancillary network services
- Metering
- Public lighting

Alternative control services are customer specific or customer requested services and so the full cost of the service is attributed to that particular customer.

12.1 Ancillary Network Services

In the 2009–14 regulatory control period ancillary network services were classified as standard control services and were referred to as 'miscellaneous' services and 'monopoly' services. For the AER's Distribution Determination (effective 1 July 2015), ancillary network services have been reclassified as alternative control services.

Ancillary network services are non-routine services provided to individual customers on an 'as needs' basis. Ancillary network services can either be charged as a fee based service or a quoted service.

Form of control – Fee based services

The charge for a fee based service is determined based on the cost of providing the service (labour rates) and the average time taken to perform the service. For these services the fee is fixed and applies irrespective of the actual time taken to perform it.

The form of control to apply to ancillary network fee based services is a price cap.
Under this form of control a schedule of prices is set for the first year. For the following years the previous year's prices are adjusted by CPI and an X factor.

The AER has determined that the following formula gives effect to the cap on prices for alternative control fee based services:

$\bar{p}_i^t \geq p_i^t$ i=1,...,n and t=1, 2, 3, 4

$\bar{p}_i^t = \bar{p}_i^{t-1}(1 + \Delta CPI_t)(1 - X_i^t) + A_i^t$

Where:

$\bar{p}_i^t$ is the cap on the price of service i in year t. For 2015–16 this is the price as determined in appendix A.1 of Attachment 16 of the AER's Final Decision, escalated by ΔCPI and the X-factor.

p_i^t is the price of service i in year t.

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}\right] - 1$$

CPI means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_i^t is the value of X for the year t in the regulatory control period, as per table 16.1 of Attachment 16 of the AER's Final Decision.

$\bar{p}_i^1$ is the cap on the price of service i in the first year of the subsequent regulatory control period. See appendix A.1 of Attachment 16 of the AER's Final Decision.

A_i^t is an adjustment factor for residual charges when customers choose to replace assets before the end of their economic life. For ancillary network services the AER have determined the value for A is zero.

Applying the formula above, the list of prices can be found in Appendix G of this pricing proposal.

Form of control – quoted services

Quoted services are those which are once off and specific to a particular customer's request. The cost of this service will depend on the actual time taken and materials used to perform the service.

Price = labour + contractor services + materials

12.2 Metering

In the 2009–14 regulatory control period, metering charges were included in the standard control services (general network charges). For the AER's Distribution Determination (effective 1 July 2015), metering has been reclassified as an alternative control service to allow for the transition to competition for metering and related services.

The form of control to apply to metering services is a price cap. Under this form of control a schedule of prices is set for the first year. For the following years the previous year's prices are adjusted by CPI and an X factor.

The AER has determined that the following formula gives effect to the cap on prices for metering services:

$\bar{p}_i^t \geq p_i^t$ i=1,...,n and t=1, 2, 3, 4

$\bar{p}_i^t = \bar{p}_i^{t-1}(1 + \Delta CPI_t)(1 - X_i^t)$

Where:

$\bar{p}_i^t$ is the cap on the price of service i in year t. However, for 2015–16 this is the price as determined in Appendix A of Attachment 16 of the AER's Final Decision.

p_i^t is the price of service i in year *t*.

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}\right] - 1$$

$CPI.$ means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_i^t is:

- for the annual metering charges, the factors set out in Table 16.8 of the AER's Final Decision.

- for the upfront capital charges, the factors set out in Table 16.9 of the AER's Final Decision.

Structure of metering charges

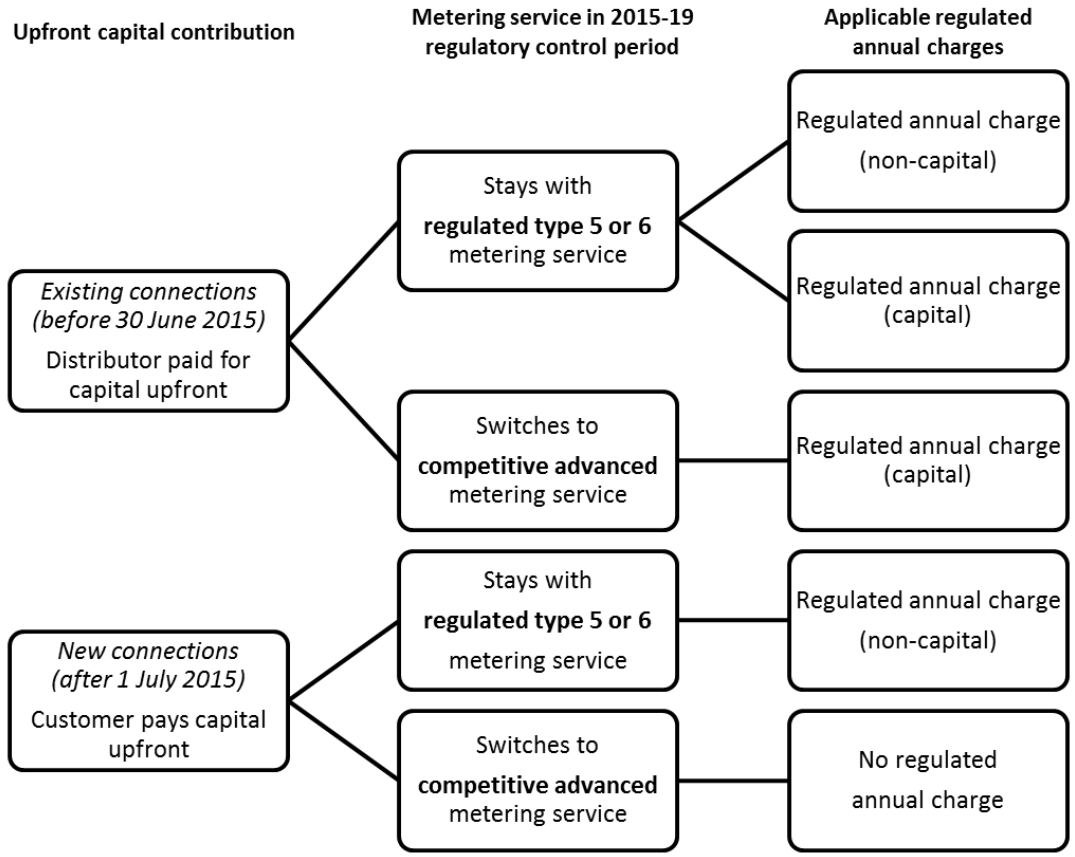
The AER has determined that type 5 and 6 metering services be (re)classified as alternative control services rather than as standard control services. This means that effective 1 July 2015, Endeavour Energy's metering charges are unbundled from the distribution component of the network tariffs and are charged separately.

The AER's Distribution Determination approves two types of metering service charges:

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

The following figure depicts how the two regulated annual charge components relate to different metering customers.

AER Final decision – applicable regulated annual charges



Note: This diagram shows regulated annual charges only. In addition, customers who switch may incur charges for their competitive advanced metering service. Any such charges are not subject to AER oversight and are not shown in the diagram above.

12 ALTERNATIVE CONTROL SERVICES

The AER approved annual metering charges for 2015-16 are as follows:

Metering Service	2015/16 Non-Capital Metering Charge (GST excl)	2015/16 Capital Metering Charge (GST excl)	2015/16 Non-Capital and Capital Metering Charge (GST excl)
Residential anytime	13.35	1.45	14.80
Residential TOU – Type 6 meter	29.12	1.45	30.57
Residential TOU - Type 5 meter	122.11	1.45	123.56
Small business anytime	20.24	1.45	21.69
Small business TOU - Type 6 meter	49.77	1.45	51.22
Small business TOU – Type 5 meter	142.75	1.45	144.20
Controlled load	3.40	1.45	4.85
Solar	3.40	1.45	4.85

A list of annual and up-front metering prices can be found in Appendix H of this pricing proposal.

12.3 Public lighting

Public lighting has been maintained as an alternative control service. Public lighting services include the design, financing, procurement and construction of public lighting installations, as well as their on-going maintenance and operation.

The form of control to apply to public lighting is a price cap. Under this form of control a schedule of prices is set for the first year. For the following years the previous year's prices are adjusted by CPI and an X factor.

The AER has determined that the following formula gives effect to the cap on prices for public lighting:

$\bar{p}_i^t \geq p_i^t$ i=1,...,n and t=1, 2, 3, 4

$\bar{p}_i^t = \bar{p}_i^{t-1}(1 + \Delta CPI_t)(1 - X_i^t) + A_i^t$

Where:

$\bar{p}_i^t$ is the cap on the price of service i in year t. However, for 2015–16 this is the price as determined in appendix A.2 of Attachment 16 of the AER's Final Decision.

p_i^t is the price of service i in year t.

12 ALTERNATIVE CONTROL SERVICES

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}\right] - 1$$

CPI means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_i^t is the value of X for the year t in the regulatory control period. There are no X-factors for public lighting.

A_i^t is an adjustment factor likely to include, but not limited to, adjustments for residual charges when customers choose to replace assets before the end of their economic life. For public lighting we consider the value for A is zero.

Applying the formula above, the list of prices can be found in Appendix I of this pricing proposal.

New 22W LED Public Lighting Tariff – 1 July 2015

Endeavour Energy's default luminaire for P4 and P5 residential road lighting is the StreetLED25 (29W).

The manufacturer of our existing StreetLED25 (29 Watt) has ceased production of this light type, replacing it with an upgraded LED light type that provides significant improvement in energy efficiency thus reducing the energy component of our council's public lighting bills.

The upgraded LED (StreetLED18) consumes 22 Watts. This is a reduction of over 24% in the energy consumed when compared to the existing StreetLED25 (29 Watts).

Endeavour Energy intends to replace the discontinued StreetLED25 with the more energy efficient StreetLED18 in line with a number of requests from councils for the replacement lamp type.

The proposed StreetLED18 (22W) and existing StreetLED25 (29W) have identical capital cost, installation cost, maintenance cost and expected life. As such, the proposed price using the public lighting model contained in the AER's final determination for StreetLED18 is identical to StreetLED25, as per the table below:

	2015-16					
	Tariff Class 3			Tariff Class 4		
	Asset Value	Maintenance	Total	Asset Value	Maintenance	Total
25W LED (StreetLED25)	$68	$54	$121.42	$7	$54	$60.32
22W LED (StreetLED18)	$68	$54	$121.42	$7	$54	$60.32

GLOSSARY

Term	Definition
AER	Australian Energy Regulator
AER's Distribution Determination	The AER's Final Decision for the Endeavour Energy Distribution Determination 2015-16 to 2018-19
Alternative Control Service	as defined in Chapter 10 of the Rules
ANS	ancillary network services
Charging Parameters	as defined in Chapter 10 of the Rules
Connection	as defined in Chapter 10 of the Rules
Connection Point	as defined in Chapter 10 of the Rules
Current regulatory control period	the regulatory period 1 July 2009 to 30 June 2014
Customer connection services	as defined in Chapter 10 of the Rules
CCF	climate change fund
CEG	Competition Economists Group
CESS	capital expenditure sharing scheme
CPI	consumer price index
Direct Control Services	as defined in Chapter 10 of the Rules
DMEGCIS	demand management and embedded generation connection incentive scheme
DNSP	distribution network service provider
DUOS	distribution use of system
EBSS	efficiency benefit sharing scheme
Distribution Network Service Provider	as defined in Chapter 10 of the Rules
Distribution Use of System	as defined in Chapter 10 of the Rules
LRMC	long run marginal cost
MSC	metering servicing charge
NUOS	network use of system
Negotiated distribution services	as defined in Chapter 10 of the Rules
Previous regulatory control period	the regulatory period 1 July 2004 to 30 June 2009
Pricing Proposal	as defined in Chapter 10 of the Rules

GLOSSARY

Term	Definition
PTRM	post tax revenue model
RAB	regulatory asset base
Regulatory control year	The regulatory year 1 July 2015 to 30 June 2016
Regulatory Obligation or Requirement	as defined in Chapter 10 of the Rules
Regulatory Year	as defined in Chapter 10 of the Rules
RIN	regulatory information notice
Rules	National Electricity Rules
Standard Control Services	as defined in Chapter 10 of the Rules
STPIS	service target performance incentive scheme
Subsequent regulatory control years	the regulatory years 1 July 2016 to 30 June 2019
Tariff Class	as defined in Chapter 10 of the Rules
TCR	transmission cost recovery
TNSP	transmission network service provider
Transitional regulatory control period	the regulatory period 1 July 2014 to 30 June 2015
TRP	transitional revenue proposal
TUOS	transmission use of system
WACC	weighted average cost of capital
2014 Regulatory Control Period	the regulatory period 1 July 2014 to 30 June 2019