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* 1. Introduction

Endeavour Energy is submitting this Tariff Structure Statement (TSS) to the Australian Energy Regulator (AER) in accordance with the requirements of the National Electricity Rules (the Rules).[[1]](#footnote-1)

The regulatory control period relevant to this TSS is 2015-19, although the period for which our tariffs will be applied is a shorter two year period from 2017/18 to 2018/19. Endeavour Energy is required to submit a new TSS covering the 2019/20 to 2023/24 period as part of our next regulatory proposal.

We have also submitted a Tariff Structure Explanatory Statement (TSES) that provides our reasons for choosing the tariffs in this document, and explains how they are compliant with the Rules.

* 1. Structure of this TSS

Table 1.1 sets out the structure of this TSS.

Table 1.1: Structure of this TSS

|  |  |  |
| --- | --- | --- |
| Chapter | Title | Purpose |
| 2 | Tariff classes and assignment policies | This section sets out our proposed tariff classes and the procedures that apply for the allocation of our customers to different tariff classes |
| 3 | Structure and charging parameters | The structure and charging parameters for our tariffs are set out in this section in addition to the policies and procedures for assigning retail customers to tariffs  |
| 4 | Approach to setting tariffs | This section describes our approach to setting tariffs, which includes calculating avoided and stand alone cost, estimating LRMC, and other associated issues related to setting tariffs |
| A1 | Glossary | This provides a definition for some key terms used throughout this TSS  |
| A2 | Compliance Checklist | This section sets out a checklist that identifies whether this TSS meets the requirements in the Rules |
| A3 | Indicative Pricing Schedule for Standard Control Services | This section sets out some indicative prices for standard control services based on the existing determination, although we note that the determination is subject to merits review |
| A4 | Indicative Pricing Schedule for Alternative Control Services | This section sets out some indicative prices for alternative control services based on the existing determination, although we note that the determination is subject to merits review |

1.

This section sets out the tariff classes into which retail customers for direct control services will be divided, and the policies and procedures we will apply for assigning retail customers to tariff classes.[[2]](#footnote-2) The policies and procedures for assigning retail customers to tariffs are set out in section 3.1.

* 1. Tariff classes

Our tariff classes for retail customers for direct control services are set on the basis of:[[3]](#footnote-3)

* the nature of the customers’ connection to the network, ie, whether they are high or low voltage customers or whether they are metered or unmetered
* the nature and extent of customers’ usage, ie, above or below a specified level of consumption per annum.

A summary of our network tariff classes for direct control services is set out in the table below. All of our direct control customers will be assigned to a tariff class for one or more of these services.[[4]](#footnote-4)

Table 2.1: Endeavour Energy Network Tariff Classes

|  |  |  |
| --- | --- | --- |
| **Customer Type** | **Tariff Class** | **Connection Characteristics** |
| Residential and small to medium enterprise businesses  | Low Voltage Energy | * LV Connection (230/400 V)
* Total electricity consumption, per financial year, is less than 160MWh
 |
| Larger commercial and light industrial  | Low Voltage Demand | * LV Connection (230/400 V)
* Total electricity consumption, per financial year, is greater than 160MWh
 |
| Industrial | High Voltage Demand | HV Connection (12.7 kV SWER, 11 or 22 kV) |
| Industrial | Subtransmission Demand | ST Connection (33, 66 or 132 kV) |
| Distributors | Inter-Distributor Transfer Demand | Distributor Transfer |
| Unmetered | Unmetered Supply | Unmetered |

In addition to our standard control services, Endeavour Energy provides customer specific or customer requested services and so the full cost of the service is attributed to that particular customer. These are referred to as alternative control services. One of the defining characteristics of these services is that the AER determines the price for the service or the unit rates used in quoting for a service.

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

* ancillary network services
* metering
* public lighting.

Endeavour Energy proposes that customers that use these categories of service form our alternative control service tariff classes. A summary is set out in the table below:

Table 2.2: Endeavour Energy Alternative Control Tariff Classes

|  |  |  |
| --- | --- | --- |
| **Customer Type** | **Tariff Class** | **Service Characteristics** |
| Retailers and ASPs on behalf of customers | Ancillary Network Services  | * Would include authorisations, inspections, permits, site establishment, connections/disconnections and conveyancing information.
* Service is initiated only at customer request.
 |
| Low voltage customers consuming less than 160MW p.a. | Metering | * Provision of Type 5 and Type 6 metering assets.
* Meter reading services for Type 5 and 6 metering assets.
* Retirement of Type 5 and 6 metering assets.
 |
| Public space illuminators (generally local councils) | Public Lighting | * Provision of public lighting infrastructure.
* Maintenance of public lighting infrastructure.
* Retirement of public lighting infrastructure.
 |

* 1. Allocation of customers to tariff classes

The process under which new customers are assigned to network tariff classes and network tariffs occurs following the receipt of a connection application by the customer or their retailer. Under our process, a customer that lodges an application to modify or upgrade an existing network connection from single to three phase is treated identically to a new customer.

These procedures are set out below.

Assignment of existing customers to tariff classes at the commencement of the next regulatory control period

1. Each customer who was a customer of Endeavour Energy immediately prior to 1 July 2015, and who continues to be a customer of Endeavour Energy as at 1 July 2015, will be taken to be “assigned” to the tariff class which Endeavour Energy was charging that customer immediately prior to 1 July 2015.

Assignment of new customers to a tariff class during the next regulatory control period

1. If, after 1 July 2015, Endeavour Energy becomes aware that a person will become a customer of Endeavour Energy, then Endeavour Energy will determine the tariff class to which the new customer will be assigned.
2. In determining the tariff class to which a customer or potential customer will be assigned, or reassigned, in accordance with paragraph 2 (above) or 5 (below), Endeavour Energy will take into account one or more of the following factors:
3. the nature and extent of the customer’s usage;
4. the nature of the customer’s connection to the network; and
5. 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.
6. In addition to the requirements under paragraph 3 (above), Endeavour Energy, when assigning or reassigning a customer to a tariff class, will ensure the following:
7. that customers with similar connection and usage profiles are treated equally
8. that customers which have micro–generation facilities are not treated less favourably than customers with similar load profiles without such facilities.

Reassignment of existing customers to another existing or a new tariff during the next regulatory control period

1. If Endeavour Energy believes that an existing customer’s load characteristics or connection characteristics (or both) are no longer appropriate for that customer to be assigned to the tariff class to which the customer is currently assigned or a customer no longer has the same or materially similar load or connection characteristics as other customers on the customer’s existing tariff, then Endeavour Energy may reassign that customer to another tariff class.

Notification of proposed assignments and reassignments

1. Endeavour Energy will notify the customer’s retailer in writing of the tariff class to which the customer has been assigned or reassigned, prior to the assignment or reassignment occurring.
2. A notice under paragraph 6 above must include advice informing the customer’s retailer that they may request further information from Endeavour Energy and that the customer’s retailer may object to the proposed reassignment. This notice must specifically include reference to Endeavour Energy’s published procedures for customer complaints, appeals and resolution.
3. If the objection is not resolved to the satisfaction of the customer's retailer under the Endeavour Energy's internal review system or EWON, then the retail customer is entitled to seek a decision of the AER via the dispute resolution process available under Part 10 of the NEL.
4. If, in response to a notice issued in accordance with paragraph 7 above, Endeavour Energy receives a request for further information from a customer’s retailer, then it must provide such information within a reasonable timeframe. If Endeavour Energy reasonably claims confidentiality over any of the information requested by the customer’s retailer, then it is not required to provide that information to the retailer or retail customer. If the customer’s retailer disagrees with such confidentiality claims, it may have resort to the dispute resolution procedures referred to in paragraph 7 above (as modified for a confidentiality dispute).
5. If, in response to a notice issued in accordance with paragraph 7 above, a customer’s retailer makes an objection to Endeavour Energy about the proposed assignment or reassignment, Endeavour Energy must reconsider the proposed assignment or reassignment. In doing so Endeavour Energy must take into consideration the factors in paragraphs 3 and 4 above, and notify the customer’s retailer in writing of its decision and the reasons for that decision.

If a customer’s retailer objection to a tariff class assignment or reassignment is upheld, in accordance with Endeavour Energy’s published procedures for customer complaints, appeals and resolution then any adjustment which needs to be made to tariffs will be done by Endeavour Energy as part of the next annual review of prices.

System of assessment and review of the basis on which a customer is charged

1. Where the charging parameters for a particular tariff result in a basis of charge that varies according to the customer’s usage or load profile, Endeavour Energy will set out in its pricing proposal a method of how it will review and assess the basis on which a customer is charged.

This section sets out the structure of our tariffs and how customers are assigned to them, in additional to the charging parameters for each of our tariffs.

1. 1. Tariff structures and their assignment

A summary of the type of tariffs offered for customers in each of our tariff classes and a description of the customers that are eligible for each is set out below.[[5]](#footnote-5)

An indicative pricing schedule for each of our tariff classes, setting out the parameters of each of our tariffs over the two year period 2017/18 to 2018/19 is set out in Appendix [A.3].

## Low Voltage Energy Tariff Class

Our default tariffs for residential and general supply customers that consume less than 160MWh per annum are structured as follows:

* a DBT that will transition to a flat tariff over two years for residential consumers[[6]](#footnote-6).
* an IBT for small to medium commercial customers.

We will maintain optional tariffs for certain customers within this tariff class. Specifically, we will maintain:

* our optional time of use (TOU) residential and general supply tariffs – these tariffs are available to any customer that has a meter that is capable of supporting such a tariff.
* our optional controlled load tariffs – these tariffs apply to any customer that has a residential or general supply tariff – the electricity load is separately metered and controlled at a connection point.

From 1 July 2018:

* new customers will be assigned to the default TOU tariff with the option to opt-out to the non-time of use tariff.
* existing customers who chose to modify or upgrade their existing network connection from single to three phase will be assigned to the default TOU tariff (if their metrology allows) with the option to opt-out to the non-time of use tariff.

## Low Voltage Demand Tariff Class

We will offer two network tariff types within the Low Voltage Demand tariff class:

* a LV TOU demand tariff.
* a LV TOU transitional demand tariff.

Our TOU demand tariff is the default tariff for customers that consume more than 160MWh per annum.

Our TOU transitional demand tariff is a mandated transitional tariff for customers whose annual consumption requires a demand based tariff, but who cannot be directly transferred to the LV TOU demand tariff due to a lack of metering capable of supporting this tariff or where the expected bill impact of a direct transition to LV TOU demand is deemed excessive. At a minimum, customers that are allocated to this tariff must have a TOU meter from which interval meter energy data is obtained. The LV TOU demand transition tariff is not available on customer or retailer request.

## High Voltage Demand Tariff Class

We will offer two network tariff types within the High Voltage Demand tariff class:

* a HV TOU demand tariff.
* an individually calculated HV TOU demand tariff.

Our HV TOU Demand Tariff is the default tariff for customers where electricity is supplied at a voltage level defined as High Voltage.

Our individually calculated HV TOU Demand Tariff is a mandated, customer specific tariff where the customer’s:

* 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.

## Sub-transmission Demand Tariff Class

We plan to offer two network tariff types within the Subtransmission Demand tariff class:

* an ST TOU demand tariff.
* an individually calculated ST TOU demand tariff.

Our ST TOU demand tariff is the default tariff for customers where electricity is supplied at a voltage level defined as Subtransmission Voltage.

Our individually calculated ST TOU demand tariff is a mandated, customer specific tariff where the customer’s:

* 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.

## Inter-Distributor Transfer Demand Tariff Class

We plan to offer only one network tariff type within the Inter-Distributor tariff class, ie, a Inter-Distributor TOU demand tariff

This tariff is a mandated, distributor specific TOU demand tariff for electricity transferred through the Endeavour Energy network on behalf of Ausgrid and Essential Energy.

## Unmetered Supply Tariff Class

We will offer two network tariff types within the Unmetered Supply tariff class:

* an unmetered block tariff.
* an unmetered energy tariff.

Our unmetered block tariff is the default tariff for customers in this tariff class.

We plan to offer three unmetered energy tariffs for the specific purpose of:

* streetlighting connection points
* traffic control signal lights connection points
* nightwatch connection points.

## Alternative Control Services

Endeavour Energy proposes no change to the structure of its ancillary network fees, metering charges or public lighting service charges as determined by the AER for the 2015-19 regulatory period.

These services are charged as either a fee based service or a quoted service, with the full cost of these services attributed to that particular customer that requests them.

The form of control applying to Endeavour Energy’s alternative control services is determined by the AER and is set out in section 3.2 below. The indicative price levels of each alternative control services are provided as a supporting document under Appendix [A.4].

* 1. Proposed charging parameters

The charging parameters for the proposed tariffs for our low voltage customers are set out in the table below.

## Low Voltage Energy Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.1: Charging parameters for the Low Voltage Energy Tariff Class

| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter[[7]](#footnote-7)** |
| --- | --- | --- | --- |
| Residential Block Tariff | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Energy Block 1 | c/kWh | Charge applied to energy consumption up to and including 4MWh per annum. |
| Energy Block 2 | c/kWh | Charge applied to energy consumption from 4MWh per annum up to an including 7MWh per annum. |
| Energy Block 3 | c/kWh | Charge applied to energy consumption above 7MWh per annum. |
| Residential Time of Use | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| General Supply Block Tariff | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Energy Block 1 | c/kWh | Effective 1 July 2018, charge applied to energy consumption up to and including 120 MWh per annum. Prior to 1 July 2018, charge applied to energy consumption up to and including 10 MWh per annum. |
| Energy Block 2 | c/kWh | Effective 1 July 2018, charge applied to energy consumption above 120 MWh per annum.Prior to 1 July 2018, charge applied to energy consumption above 10 MWh per annum. |
| General Supply Time of Use | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| Controlled Load 1 | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Energy | c/kWh | Charge applied to controlled energy consumption where energy consumption is controlled by our equipment so that supply may not be available between 07:00 and 22:00. |
| Controlled Load 2 | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Energy | c/kWh | Charge applied to controlled energy consumption where supply is available for restricted periods not exceeding a total of 17 hours in any period of 24 hours. |

##

## Low Voltage Demand Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.2: Charging parameters for the Low Voltage Demand Tariff Class

| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter** |
| --- | --- | --- | --- |
| LV TOU Demand | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| High Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.High Season includes the periods November to March and June to August inclusive. |
| Low Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.Low Season includes the periods September to October and April to May inclusive. |
| LV TOU Demand Transition Tariff | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |

##

## High Voltage Demand Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.3: Charging parameters for the High Voltage Demand Tariff Class

| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter** |
| --- | --- | --- | --- |
| HV TOU Demand | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| High Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.High Season includes the periods November to March and June to August inclusive. |
| Low Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.Low Season includes the periods September to October and April to May inclusive. |
| Individually Calculated HV TOU Demand | As per the HV TOU Demand tariff |

##

## Subtransmission Voltage Demand Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.4: Charging parameters for the Subtransmission Voltage Demand Tariff Class

|  |  |  |  |
| --- | --- | --- | --- |
| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter** |
| ST TOU Demand | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| High Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.High Season includes the periods November to March and June to August inclusive. |
| Low Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.Low Season includes the periods September to October and April to May inclusive. |
| Individually Calculated ST TOU Demand | As per the ST TOU Demand tariff |

##

## Inter-Distributor Transfer Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.5: Charging parameters for the Inter-Distributor Transfer Tariff Class

|  |  |  |  |
| --- | --- | --- | --- |
| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter** |
| Individually Calculated TOU Demand | Fixed | c/day | Access charge reflecting a fixed amount per day. |
| Peak Energy | c/kWh | Charge applied to energy consumption between 13:00 to 20:00 on business days. |
| Shoulder Energy | c/kWh | Charge applied to energy consumption between 07:00 to 13:00 and 20:00 to 22:00 on business days. |
| Off-Peak Energy | c/kWh | All other times |
| High Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.High Season includes the periods November to March and June to August inclusive. |
| Low Season Demand | $/kVA/month | Charge applied to maximum energy demand between 13:00 to 20:00 on business days.Low Season includes the periods September to October and April to May inclusive. |

## Unmetered Supply Tariff Class

The charging parameters for this tariff class are set out in the table below.

Table 3.6: Charging parameters for the Unmetered Supply Tariff Class

|  |  |  |  |
| --- | --- | --- | --- |
| **Tariff Type** | **Components** | **Measurement** | **Charging Parameter** |
| Unmetered Block Tariff | Energy Block 1 | c/kWh | Effective 1 July 2018, charge applied to energy consumption up to and including 120 MWh per annum. Prior to 1 July 2018, charge applied to energy consumption up to and including 10 MWh per annum. |
| Energy Block 2 | c/kWh | Effective 1 July 2018, charge applied to energy consumption above 120 MWh per annum.Prior to 1 July 2018, charge applied to energy consumption above 10 MWh per annum. |
| Unmetered Energy Tariff | Energy | c/kWh | Charge applied to all energy consumption. |

## Ancillary Network Services

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

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:

$\overbar{p}\_{i}^{t}\geq p\_{i}^{t}$ i=1,...,n and t=1, 2, 3, 4

$$\overbar{p}\_{i}^{t}=\overbar{p}\_{i}^{t-1}\left(1+∆CPI\_{t}\right)\left(1-X\_{i}^{t}\right)+A\_{i}^{t}$$

Where:

$\overbar{p}\_{i}^{t}$ 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 ∆CPI and the X-factor.

$p\_{i}^{t}$ is the price of service i in year t.

$$∆CPI\_{t}=\left[\frac{CPI\_{Mar,t-2} +CPI\_{Jun,t-2} +CPI\_{Sep,t-1}+CPI\_{Dec,t-1}}{CPI\_{Mar,t-3} +CPI\_{Jun,t-3} +CPI\_{Sep,t-2}+CPI\_{Dec,t-2}}\right]-1$$

$CPI$ 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.

$\overbar{p}\_{i}^{1}$ 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.

Our historical and proposed charges for our fee-based ancillary network services for each of the five years from 2014/15 to 2018/19 are set out in Appendix [A.4]

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

## Metering

The AER has determined that Type 5 and 6 metering services be (re)classified as alternative 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 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.

$\overbar{p}\_{i}^{t}\geq p\_{i}^{t}$ i=1,...,n and t=1, 2, 3, 4

$$\overbar{p}\_{i}^{t}=\overbar{p}\_{i}^{t-1}\left(1+∆CPI\_{t}\right)\left(1-X\_{i}^{t}\right)$$

Where:

$\overbar{p}\_{i}^{t}$ 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.

$$∆CPI\_{t}=\left[\frac{CPI\_{Mar,t-2} +CPI\_{Jun,t-2} +CPI\_{Sep,t-1}+CPI\_{Dec,t-1}}{CPI\_{Mar,t-3} +CPI\_{Jun,t-3} +CPI\_{Sep,t-2}+CPI\_{Dec,t-2}}\right]-1$$

$CPI$ 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.

## 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:

$\overbar{p}\_{i}^{t}\geq p\_{i}^{t}$ i=1,...,n and t=1, 2, 3, 4

$$\overbar{p}\_{i}^{t}=\overbar{p}\_{i}^{t-1}\left(1+∆CPI\_{t}\right)\left(1-X\_{i}^{t}\right)+A\_{i}^{t}$$

Where:

$\overbar{p}\_{i}^{t}$ 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.

$$∆CPI\_{t}=\left[\frac{CPI\_{Mar,t-2} +CPI\_{Jun,t-2} +CPI\_{Sep,t-1}+CPI\_{Dec,t-1}}{CPI\_{Mar,t-3} +CPI\_{Jun,t-3} +CPI\_{Sep,t-2}+CPI\_{Dec,t-2}}\right]-1$$

$CPI$ 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.

1.

This section details Endeavour Energy’s approach to setting tariffs for direct control services[[8]](#footnote-8). We have set these tariffs by:

* setting the tariff at a level such that the revenue we expect to recover from customers lies between
	+ the stand alone cost of serving those customers who belong to that tariff class
	+ the avoidable cost of not serving those customers.
* setting each tariff so that it is based on the long run marginal cost (LRMC) of providing services to those customers assigned to that tariff
* setting our tariffs to reflect the efficient costs of providing the services
* taking account of, and limiting the customer impact of changes to tariffs.

For more information on our approach to setting tariffs, see the associated TSES.

* 1. Revenue is between stand-alone and avoidable cost for each tariff class

Endeavour Energy sets its tariffs at a level such that, for each tariff class, the revenue we expect to recover from customers lies between:

* the stand alone cost of serving those customers who belong to that tariff class (the upper bound); and
* the avoidable cost of not serving those customers.

The stand-alone cost of serving a group of customers is the total cost required to serve those customers alone, ie, were we to build the network anew, removing all other customers from the network. The avoidable cost of serving a group of customers is the reduction in cost that could be achieved if those customers were no longer served, ie, the reduction in cost associated with a reduction in output that was previously provided to that class of customer.

Endeavour Energy calculates stand-alone and avoidable costs by first classifying each of our network cost categories on the basis of the following two dimensions:

* whether costs are direct or indirect
* whether costs are scalable or non-scalable.

Avoidable cost for each tariff class is calculated as the sum of all direct costs multiplied by some weight,[[9]](#footnote-9) which represents the proportion of direct costs that are attributable to that tariff class.

Stand-alone cost for each tariff class is calculated by taking the avoidable cost for that tariff class and adding to it:

* all non-scalable indirect costs we incur in operating the network
* a proportion of our scalable, indirect costs that can be attributed to that tariff class.

See section 7.2 of the explanatory statement that accompanies this TSS for more information on how we have calculated stand-alone and avoidable costs.

* 1. Estimating long-run marginal cost

We set our tariffs based on the long run marginal cost (LRMC) of providing services to those customers assigned to that tariff. The LRMC of supplying each tariff class is estimated using an average incremental cost approach, ie, by taking the average change in projected operating and capital expenditure attributable to future increases in demand. This averages the total cost of supplying new growth in demand over that growth in demand.

In practice, under this approach LRMC is estimated by:

* projecting future operating and capital costs attributable to expected increases in demand.
* forecasting future load growth for the relevant network asset (or assets).
* dividing the present value of projected costs by the present value of expected increases in demand.

The average incremental cost approach yields an LRMC estimate for each network service expressed in dollars per kVA per annum. However, many customers are not, and indeed cannot, be charged on the basis of their contribution to the network’s maximum demand. It is therefore necessary to express these ‘dollars per kVA per annum’ LRMC estimates (hereafter termed ‘base LRMC estimates’) in terms of the charging parameters that constitute each tariff.

Translation of LRMC into charging parameters for non-TOU tariffs

Translation of LRMC into charging parameters for non-TOU tariffs involves two steps, ie:

1. Converting the base LRMC estimate using the power factor for a given customer class.
2. Converting the resulting estimate to dollars per kWh by dividing by the number of hours in the year that the variable tariff component can be charged, ie:

$$LRMC estimate (\$ per kWh)= \frac{LRMC (\$ per kW∙ year)}{8760 hours}$$

Translation of LRMC into charging parameters for TOU energy tariffs

Expressing the base LRMC estimate in terms of time-of-use tariffs requires an additional term to capture the probability that maximum demand ( or ‘MD’) for the network occurs during a given time period (ie, peak, shoulder or off-peak). After adjusting for the power factor, the LRMC estimate for each time period can be calculated as follows:

$$LRMC estimate (\$ per kWh )= \frac{LRMC ×Prob. of MD occurring during time period}{Total number of hours in time period in the year}$$

Translation of LRMC into charging parameters for time of use demand tariffs

Endeavour Energy’s demand tariffs have charging parameters that are more closely aligned with the base LRMC estimate, because they are already expressed in terms of dollars per kVA per annum. The efficient charging parameters can be estimated as follows:

$$LRMC estimate (\$ per kVA∙month )= \frac{LRMC ×Prob. of MD occurring during time period}{Number of months in time period in the year}$$

See section 7.3 of the explanatory statement that accompanies this TSS for more information on how we have calculated LRMC.

* 1. Tariffs reflect the efficient costs of providing the services

Endeavour Energy’s approach to setting charging windows for time of use tariffs is to set prices that are cost reflective, ie:

* prices should be lower when there is more excess capacity, because increased demand will not lead to additional investment, ie, the cost of additional demand is low.
* prices should be higher when increased demand for electricity may require additional investment, ie, the cost of greater demand is high.

We have determined the thresholds between peak, shoulder and off peak hours by assessing in which half hour periods demand is within 10% (peak) and 20% (shoulder) of the maximum network peak demand.

When planning to augment the network, or employ demand management alternatives in response to peak demand growth, we review the proportion of time within a year that a network asset exceeds its firm rating. When the proportion of time exceeds 1%, this would normally be the trigger to consider augmentation or demand management options.

Endeavour Energy’s tariffs apply at the total network rather than asset level. Using the network Load Duration Curve (LDC) as indicative of likely demand at the asset level, we observe that 1% of time equates to a level of demand at or within 20% of the maximum network demand.

By setting our charging windows to reflect those times of the day that additional demand may require network augmentation, Endeavour Energy is more accurately signalling to consumers those times where the cost of greater demand is high.

See section 7.1 of the explanatory statement that accompanies this TSS for more information on how we have determined the charging windows in a manner that reflects the efficient costs of providing the service.

* 1. Tariffs mitigate impact on customers

Endeavour Energy’s approach is to ensure that any changes to tariffs are made gradually, to limit the impact on customers each year.

As such, Endeavour Energy will adopt a gradualist approach to tariff restructuring by limiting movements in the residential fixed DUOS tariff component to the greater of:

* the average annual price movement plus 2.5%
* the rate of inflation.[[10]](#footnote-10)

Our residential customers will be affected by the transition from a DBT to a flat tariff. We propose to undertake this transition over a two-year period because this would achieve a flat tariff by the last year of this TSS, whilst mitigating the impact on our customers’ network bills. The reasons for this are set out in section 7.4 of the TSES.

|  |  |
| --- | --- |
| Term | Definition  |
| AEMC | Australian Energy Market Commission |
| AER | Australian Energy Regulator |
| AIC | Average incremental cost |
| ASP | Accredited service provider |
| CALD | Culturally and linguistically diverse |
| CPP | Critical peak pricing |
| DBT | Declining block tariff |
| DNSP | Distribution network service provider |
| DUOS | Distribution Use of System |
| EWON | Energy and Water Ombudsman NSW |
| GWh | Gigawatt hour |
| HV | High voltage |
| IBT | Inclining block tariff |
| kV | Kilovolt |
| kVA | Kilovolt-ampere |
| kW | Kilowatt |
| kWh | Kilowatt hour |
| LGA | Local government area |
| LRMC | Long run marginal cost |
| LV | Low voltage |
| NEM | National Electricity Market |
| NER or the Rules | National Electricity Rules |
| NUOS | Network Use of System |
| NCOSS | NSW Council of Social Service |
| MVA | Megavolt-ampere |
| MW | Megawatt |
| MWh | Megawatt hour |
| PIAC | Public Interest Advocacy Centre |
| PTR | Peak time rebate |
| SBS | NSW Solar Bonus Scheme |
| ST | Subtransmission voltage |
| TEC | Total Environment Centre |
| TOU | Time of use |
| TSS | Tariff structure statement |

This section sets out the TSS Rule requirements and the section in which those requirements have been met within this document.

| **Rule Provision** | **Amending Clause** | **Requirement** | **Relevant section** |
| --- | --- | --- | --- |
| **6.18.1** |  | This Part applies to tariffs and tariff classes related to direct control services. |  |
| 6.18.1A(a)(1) |  | The *tariff structure statement* must include the *tariff classes* into which *retail customers* for *direct control services* will be divided during the relevant *regulatory control period*. | Section 2.1 |
| 6.18.1A(a)(2) |  | The *tariff structure statement* must include the policies and procedures the *Distribution Network Service Provider* will apply for assigning *retail customers* to tariffs or reassigning *retail customers* from one tariff to another (including any applicable restrictions). | Section 2.2 and 3.1 |
| 6.18.1A(a)(3) |  | The *tariff structure statement* must include the structures for each proposed tariff. | Section 3.1 |
| 6.18.1A(a)(4) |  | The *tariff structure statement* must include the *charging parameters* for each proposed tariff. | Section 3.2 |
| 6.18.1A(a)(5) |  | The *tariff structure statement* must include a description of the approach that the *Distribution Network Service Provider* will take in setting each tariff in each *pricing proposal* during the relevant *regulatory control period* in accordance with clause 6.18.5 (pricing principles). | Section 4 |
| 6.18.1A(b) |  | The *tariff structure statement* must comply with the *pricing principles for direct control services*. | Section 4 |
| 6.18.1A(e) |  | A *tariff structure statement* must be accompanied by an *indicative pricing schedule* which sets out, for each tariff for each *regulatory year* of the *regulatory control period*, the indicative price levels determined in accordance with the *tariff structure statement.* | Appendix A3 and Appendix A4 |

Our placeholder charges for 2017/18 and 2018/19 have been calculated using annual CPI increases applied to our 2015/16 distribution revenue as a base starting position. The actual level of our charges will depend on any adjustments to the AER’s final decision made by the Australian Competition Tribunal, any future pass-through amounts, changes in service performance rewards and/or penalties, changes in inflation, changes in transmission costs and changes in jurisdictional scheme costs, including Climate Change Fund costs.

The tables below set out our indicative prices for our standard control services for 2017/18 and 2018/19.

Table A3.1: 2017/2018 Indicative Network Pricing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tariff Type** | **Fixed ($/day)** | **Single and TOU Consumption (c/kWh)** | **Step Consumption (c/kWh)** | **Demand ($/kVA/mth)** |
| **Daily** | **Non-TOU** | **Peak** | **Shoulder** | **Off-peak** | **Step 1** | **Step 2** | **Step 3** | **High Season** | **Low Season** |
| Residential Block | 0.34 |  |  |  |  | 9.70 | 9.41 | 8.85 |  |  |
| Residential Time of Use | 0.39 |  | 14.01 | 9.27 | 5.56 |  |  |  |  |  |
| General Supply Block | 0.49 |  |  |  |  | 9.40 | 9.92 | 9.92 |  |  |
| General Supply Time of Use | 0.56 |  | 15.19 | 10.40 | 5.10 |  |  |  |  |  |
| Controlled Load 1 | 0.03 | 0.59 |  |  |  |  |  |  |  |  |
| Controlled Load 2 | 0.03 | 2.75 |  |  |  |  |  |  |  |  |
| LV TOU Demand | 18.73 |  | 4.28 | 3.15 | 1.37 |  |  |  | 10.64 | 9.30 |
| LV TOU Demand Transition | 18.73 |  | 16.94 | 9.72 | 1.67 |  |  |  |  |  |
| HV TOU Demand | 31.77 |  | 3.20 | 2.60 | 1.14 |  |  |  | 8.94 | 7.73 |
| ST TOU Demand | 49.94 |  | 2.75 | 2.23 | 1.02 |  |  |  | 6.86 | 5.94 |
| Unmetered Block |  |  |  |  |  | 9.40 | 9.40 |  |  |  |
| Unmetered Street Lighting |  | 8.41 |  |  |  |  |  |  |  |  |
| Unmetered Traffic Lights |  | 9.40 |  |  |  |  |  |  |  |  |
| Unmetered Night Watch |  | 6.55 |  |  |  |  |  |  |  |  |

Table A3.2: 2018/2019 Indicative Network Pricing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tariff Type** | **Fixed ($/day)** | **Single and TOU Consumption (c/kWh)** | **Step Consumption (c/kWh)** | **Demand ($/kVA/mth)** |
| **Daily** | **Non-TOU** | **Peak** | **Shoulder** | **Off-peak** | **Step 1** | **Step 2** | **Step 3** | **High Season** | **Low Season** |
| Residential Block | 0.35 |  |  |  |  | 9.62 | 9.62 | 9.62 |  |  |
| Residential Time of Use | 0.39 |  | 14.53 | 9.53 | 5.70 |  |  |  |  |  |
| General Supply Block | 0.50 |  |  |  |  | 9.82 | 9.82 | 10.54 |  |  |
| General Supply Time of Use | 0.56 |  | 15.48 | 10.75 | 5.66 |  |  |  |  |  |
| Controlled Load 1 | 0.03 | 0.61 |  |  |  |  |  |  |  |  |
| Controlled Load 2 | 0.03 | 2.85 |  |  |  |  |  |  |  |  |
| LV TOU Demand | 18.72 |  | 4.35 | 3.20 | 1.39 |  |  |  | 10.86 | 9.48 |
| LV TOU Demand Transition | 18.72 |  | 17.70 | 10.11 | 1.70 |  |  |  |  |  |
| HV TOU Demand | 32.56 |  | 3.25 | 2.64 | 1.15 |  |  |  | 9.08 | 7.86 |
| ST TOU Demand | 51.19 |  | 2.80 | 2.27 | 1.04 |  |  |  | 6.96 | 6.04 |
| Unmetered Block |  |  |  |  |  | 9.82 | 9.82 |  |  |  |
| Unmetered Street Lighting |  | 8.54 |  |  |  |  |  |  |  |  |
| Unmetered Traffic Lights |  | 9.82 |  |  |  |  |  |  |  |  |
| Unmetered Night Watch |  | 6.78 |  |  |  |  |  |  |  |  |

Table A3.3: Tariff Codes relating to Tariff Type

| **Tariff Type** | **Tariff Codes** |
| --- | --- |
| Residential Block | N70 , NS70 , NG70 , NFTG , NFTH , NFT9 , NFT0 |
| Residential Time of Use | N705 , N706 , NS75 , NG75 , NS76 , NG76 , NFTP , NFTQ , NFT7 , NFT8 |
| General Supply Block | N90 , NS90 , NG90 , NFTJ , NFTK , NFTA , NFTB |
| General Supply Time of Use | N84 , N845 , NS84 , NG84 , NS85 , NG85 , NFTL , NFTM , NFT5 , NFT6 |
| Controlled Load 1 | N50 |
| Controlled Load 2 | N54 |
| LV TOU Demand | N19 , NS19 |
| LV TOU Demand Transition | N89 , NS89 |
| HV TOU Demand | N29 , NS29 |
| ST TOU Demand | N39 , NS39 |
| Unmetered Block | N99 |
| Unmetered Street Lighting | ENSL |
| Unmetered Traffic Lights | ENTL |
| Unmetered Night Watch | ENNW |
| Residential Block + Controlled Load 1 | NC01 , NFTC |
| Residential Block + Controlled Load 2 | NC02 , NFTD |
| General Supply Block + Controlled Load 1 | NC03 , NFTE |
| General Supply Block + Controlled Load 2 | NC04 , NFTF |

Some of the above tariffs codes include generated energy (credit) rate components[[11]](#footnote-11) in addition to the charging parameters. During the TSS period, Endeavour Energy may need to introduce new tariff codes for billing purposes. Any new tariff codes introduced will comply with the tariff structures outlined in this Tariff Structure Statement and the price level for NUOS services will equate to the tariff type under which the new tariff code has been created.

The tables below set out our indicative prices for our alternative control services for 2017/18 and 2018/19.

1. As required under the Rules, Clause 6.18.1A. [↑](#footnote-ref-1)
2. Clause 6.18.1A(a)(1) and 6.18.1A(a)(2) of the Rules. [↑](#footnote-ref-2)
3. As required under the Rules, Clause 6.18.4(a)(1). [↑](#footnote-ref-3)
4. As required under the Rules, Clause 6.18.3(b) and (c). [↑](#footnote-ref-4)
5. During the TSS period, Endeavour Energy may need to introduce new tariff codes for billing purposes. Any new tariff codes introduced will comply with the tariff structures outlined in this document for each tariff class and the price level for NUOS services will equate to the tariff type under which the new tariff code has been created. [↑](#footnote-ref-5)
6. For the purpose of this TSS, Endeavour Energy has displayed block tariff consumption thresholds on a MWh per annum basis. In practice, this annualised consumption threshold will be calculated on a pro-rata basis corresponding to the billing period. [↑](#footnote-ref-6)
7. For the purpose of this TSS, Endeavour Energy has displayed block tariff consumption thresholds on a MWh per annum basis. In practice, this annualised consumption threshold will be calculated on a pro-rata basis corresponding to the billing period. [↑](#footnote-ref-7)
8. Clause 6.18.1A(a)(5) of the Rules. [↑](#footnote-ref-8)
9. Endeavour Energy’s current weights are derived from the estimated value of the assets at each voltage level. [↑](#footnote-ref-9)
10. Calculated in accordance with Attachment 14 of the AER’s Final Decision for Endeavour Energy. [↑](#footnote-ref-10)
11. This tariff component is in place solely to ensure that a customer’s generation is measured and forwarded to the retailer for their billing purposes. The network “credit” is zero. [↑](#footnote-ref-11)