

PUBLIC

Energex

Annual Pricing Proposal

1 July 2015 to 30 June 2016



positive energy

Version control

Version	Date	Description
1.0	21 May 2015	Document submitted to AER for approval
1.1	28 May 2015	Amended Table 4.6 to update a transposition inconsistency for CAC 11 kV tariffs DUoS Peak and Off-peak volumes; amended Table 4.6 for rounding error for SAC 8800 NUoS Off-peak volume; Table 13.9 Metering installation – Upfront capital charge, escalated from 2014-15 to 2015-16 dollars.

Energex Limited (Energex) is a Queensland Government Owned Corporation that builds, owns, operates and maintains the electricity distribution network in the fast growing region of South East Queensland. Energex provides distribution services to almost 1.4 million connections, delivering electricity to 2.8 million residents and businesses across the region.

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1 Introduction

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposal

(a) A Distribution Network Service Provider must:

- (1) submit to the AER, as soon as is 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.

1.1 Introduction

This document is Energex's Annual Pricing Proposal for 2015-16. It has been prepared for the initial year of Energex's 2015-20 regulatory control period and is submitted for review and approval by the Australian Energy Regulator (AER), in accordance with clause 6.18.2(a)(1) of the National Electricity Rules (the Rules) and additional requirements as specified by the AER in the Preliminary Decision Energex determination 2015-16 to 2019-20 (Preliminary Decision).

This document is submitted in accordance with, and complies with, the requirements of:

- The National Electricity Law (NEL).¹
- The National Electricity Rules, Version 65.² Transitional arrangements in section 11.73.1(b) of the Rules stipulate that the requirements set out in chapter 6 of version 65 of the Rules apply to Energex in the first and second regulatory years of the 2015-20 regulatory control period.
- Preliminary Decision Energex determination 2015-16 to 2019-20 (AER, April 2015).^{3,4}
- Final Framework and Approach (F&A) for Energex and Ergon Energy Regulatory control period commencing 1 July 2015.⁵

Specifically, this 2015-16 Pricing Proposal describes the methodology and principles Energex has followed during tariff development to recover its allowed revenue. It outlines the tariff classes, proposed network tariffs and charging parameters for Standard Control Services (SCS) and Alternative Control Services (ACS), and expected revenue for the year commencing 1 July 2015 and ending 30 June 2016.

¹ [The National Electricity Law is established by the National Electricity \(South Australia\) Act 1996, 30 January 2015.](#)

² [AEMC, National Electricity Rules V65, 1 October 2014.](#)

³ [AER, Preliminary Decision Energex determination 2015-16 to 2019-20, April 2015.](#)

⁴ For the purpose of developing the 2015-16 Pricing Proposal, the AER's Preliminary Decision has been treated as the Final Determination for 2015-16.

⁵ [AER, Final Framework and approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015, April 2014.](#)

1.2 Structure of this document

Table 1.1 - Pricing proposal structure

Chapter	Title	Overview
2	Pricing framework	Outlines the framework and methodology for setting tariffs. The pricing framework details the modelling inputs and outputs used to develop network tariffs to recover allowed revenue.
3	Standard control services: Tariff classes	Sets out the tariff classes for SCS, the basis for the proposed tariff classes and the procedures for the assignment and reassignment of customers to tariff classes.
4	Standard control services: Proposed tariffs	For each SCS tariff class, sets out the proposed tariffs and charging parameters.
5	Weighted average revenue	Details the weighted average revenue for SCS tariff classes.
6	Side constraints for SCS tariff classes	Presents the formula for calculating side constraints and outlines approach to side constraints for 2015-16.
7	Application of pricing principles	Demonstrates how Energex applies the pricing principles stipulated in the Rules.
8	Transmission cost recovery	Outlines how adjustments to charges are calculated for Designated Pricing Proposal Charge as a result of over or under recovery.
9	Jurisdictional Schemes	Outlines Energex's approach to meeting the requirements of jurisdictional schemes.
10	Changes from previous regulatory year	Outlines annual adjustments to total allowed revenue components, changes to tariff classes and tariffs, and Energex's approach to price setting between 2014-15 and 2015-16.
11	Tariff strategy	Provides a brief overview of Energex's pricing strategy and tariff trials.
12	Alternative control services: Tariff classes	Profiles the tariff classes for ACS and the basis for the proposed tariff classes.
13	Alternative control services: Proposed tariffs	For each ACS tariff class, outlines the framework, proposed tariffs and charging parameters.
14	Customer impacts	Examines the impact on customers from the tariffs that will be implemented in 2015-16.
15	Publication of information about tariffs and tariff classes	Specifies the documents relating to tariffs and pricing that will be published on the Energex website.
	Appendices	Provides additional supporting information.

1.3 Confidential information

Energex claims confidentiality over the following sections of this document:

- Appendix 1.1 – ICC site-specific tariffs
- Appendix 1.2 – CAC site-specific tariffs

Energex has provided information to support this requirement in accordance with the Better Regulation Confidentiality Guideline released by the AER in November 2013.⁶

1.4 Further information

Requests and enquiries concerning this document should be sent by email to networkpricing@energex.com.au.

⁶ [AER, Better Regulation Confidentiality Guideline, November 2013.](#)

2 Pricing framework

2.1 Pricing principles and objectives

When setting SCS tariffs, Energex's objective is to ensure its allowed revenue, as set by the AER, is recovered from customers in a manner consistent with the pricing principles, as outlined in clause 6.18.5 of the Rules. Detailed information about Energex's application of and compliance with the pricing principles is set out in Chapter 7.

For ACS (subject to a price cap), the objective is to ensure that the prices charged are cost-reflective and consistent with the pricing principles. More information about ACS is included in Chapter 12 and Chapter 13.

In addition to the pricing principles established under the Rules, Energex applies a number of pricing objectives in the formulation of tariffs which are described in Table 2.1. These pricing objectives are intended to complement the pricing principles and provide clarity when formulating network tariffs. For individually calculated customers, Energex's network tariffs preserve the economic signals present in the structure of the Designated Pricing Proposal Charge (DPPC).

Table 2.1 - Energex's pricing objectives

Pricing objective	Description
No cross-subsidisation	To the maximum extent possible, for a network user, or group of users, there should be no cross subsidies between each SCS tariff class, or between SCS and ACS tariffs.
Network efficiency	To the maximum extent possible, tariffs should incorporate appropriate signals to inform network users of their impact on existing and future network capacity and costs, and to encourage demand management.
Equity	To the maximum extent possible, tariffs should be equitable for customers and should reflect the users' utilisation of the existing network and the use of specific dedicated assets.
Price stability	Tariffs should not widely fluctuate over time to permit customers to make informed investment decisions.
Cost-reflectivity	As far as possible, tariffs should reflect the actual cost of service provision to customers.
Simplicity	Tariffs should be simple and straightforward to apply, based on a well-defined and clearly explained methodology and be readily understood by customers.

The pricing objectives in Table 2.1 are broadly consistent with the Australian Energy Market Commission (AEMC) rule change introducing new pricing principles under which network tariffs must be developed from 1 July 2017.⁷

⁷ [AEMC, National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014 No.9, 1 December 2014.](#)

2.2 Setting the 2015-16 tariffs

This section provides an overview of how Energex's total allowed revenue (TR), formerly known as maximum allowable revenue (MAR), is recovered through tariffs for SCS. More information about tariff classes, tariffs and charging parameters is available in Chapters 3 and 4, respectively.

2.2.1 Total allowed revenue

Table 2.2 details the TR calculation for 2015-16. The TR is based on a building block approach, which includes each of the regulated cost components: regulatory depreciation, return on capital, operating expenditure and tax allowance. The TR also incorporates adjustment for carry-overs, incentive payments and pass-throughs. Section 10.1 provides a summary of the annual adjustments to the allowed revenue (AR).

Table 2.2 – 2015-16 Total Allowed Revenue calculations

Component	Amount (\$m)	Comments/reference
Allowed Revenue 2015-16¹	1,139.8	As per the Preliminary Decision Energex determination 2015-16 to 2019-20
Other adjustments:		
• Service Target Performance Incentive Scheme (STPIS) Factor	13.5	Adjustment consistent with the 2012-13 S-banking. ^{2, 3, 4}
• DUoS 2013-14 under recoveries	110.9	Under recovery for 2013-14
• Capital contributions under recoveries	47.3	Under recovery for 2013-14
• Solar Bonus Scheme (SBS) FiT payment pass-through ⁵	254.6	Pass-through amount for SBS FiT payments based on under recovery in 2013-14 as approved by the AER.
Total Allowed Revenue (TR)^{6, 7}	1,566.1	
• SBS Jurisdictional Scheme	202.2	Queensland SBS Jurisdictional Scheme for 2015-16
Total Revenue Requirement	1,768.3	
Notes: <ol style="list-style-type: none"> 1. Refer to the Preliminary Decision Energex determination 2015-16 to 2019-20. 2. S-banking as defined in Appendix 5. 3. STPIS for 2013-14, designed for collection in 2015-16 will be not banked until 2016-17 to maintain price stability. 4. Energex's annual performance for 2012-13 against STPIS resulted in Energex being entitled to the full reward of 2% of revenue, Energex has only sought to recover \$13.5 million which represents the incremental costs incurred by Energex in responding to ex-tropical cyclone Oswald. 5. AER, Determination 2013-14 Queensland solar bonus scheme pass-through for Energex, December 2014. 6. Due to rounding, individual components may not sum to the total. 7. DUoS under recoveries over the 2010-15 regulatory control period have been carried over into the building blocks for the 2015-20 regulatory control period. 		

2.2.2 Revenue Allocation

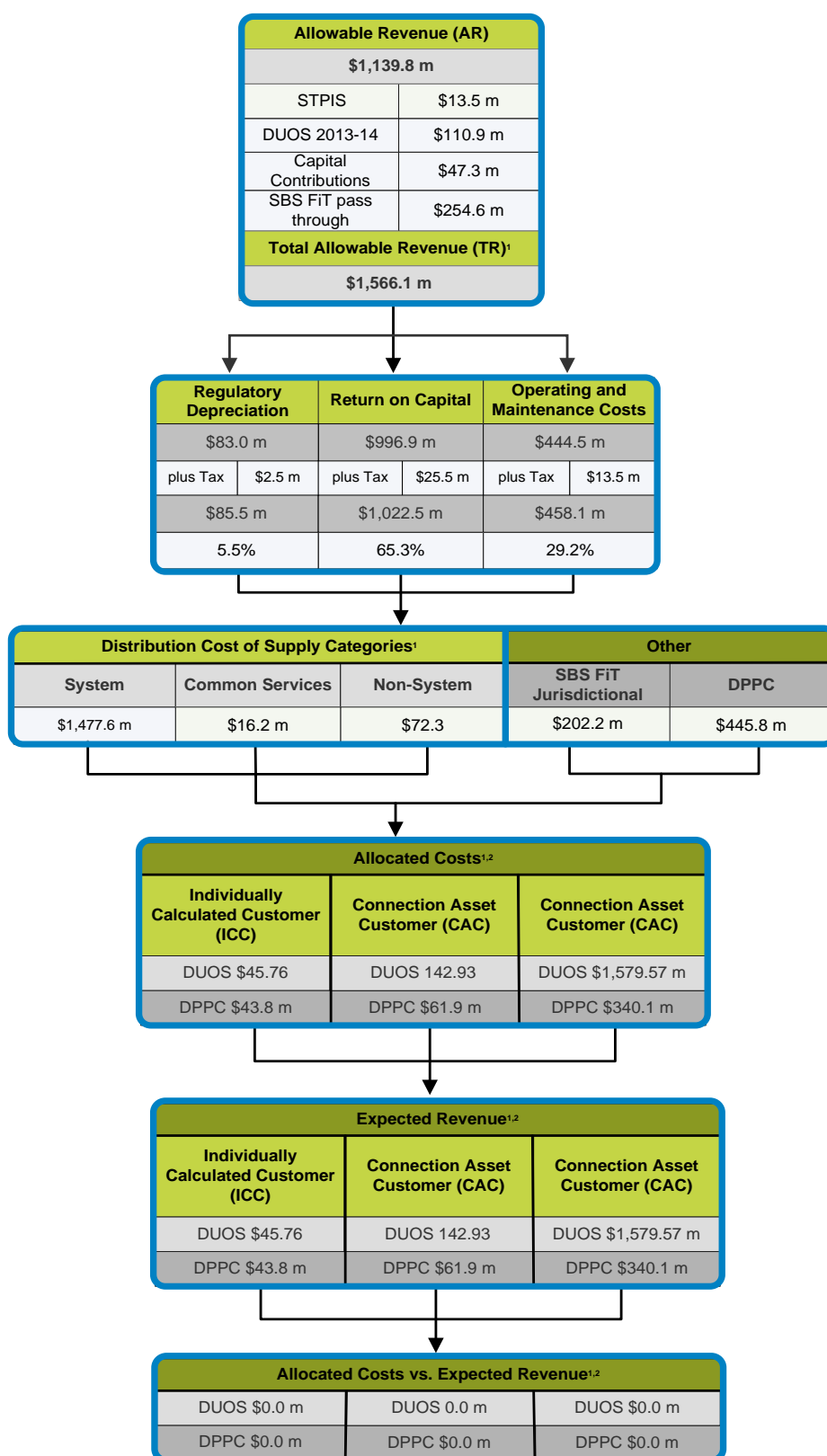
The first stage of the tariff setting process is to allocate or assign network costs to the tariff classes in the most cost-reflective way. Energex's tariff classes for SCS are:

- Individually Calculated Customers (ICC)
- Connection Asset Customers (CAC) – including customers formally classified as Embedded Generators
- Standard Asset Customer (SAC) – including customers formally classified as SAC Demand and SAC Non-Demand.

A description of these tariff classes, including customer eligibility, is included in section 3.1. For further detail on changes to Energex's tariff classes in 2015-16 refer to Chapter 10.

Energex allocates costs to its tariff classes using a Distribution Cost of Supply (DCOS) model. This modelling process is explained in Appendix 3 - Revenue allocation process. The allocation of costs to recover the TR is illustrated in Figure 2.1.

Figure 2.1 – 2015-16 Revenue allocation flowchart



Notes:

1. Due to rounding, individual components may not sum to the total
2. DUOS figures are inclusive of the SBS FIT Jurisdictional Scheme

2.2.3 DUoS overs and unders account

PRELIMINARY DECISION REQUIREMENT

In accordance with clause 6.12.1(13) of the Rules, to demonstrate compliance with its distribution determination, Energex must maintain a DUoS unders and overs account. Energex must provide information on this account to the AER as part of its annual pricing proposal.

As part of the requirements of the Preliminary Decision, the AER requires Energex to provide entries in its Distribution Use of System (DUoS) overs and unders account for the most recently completed regulatory year (t-2) and the next regulatory year (t). For this 2015-16 Pricing Proposal, year t-2 is 2013-14 and year t is 2015-16.

The AER's Preliminary Decision treats the 2013-14 DUoS under recovery as an adjustment which has been passed through in the 2015-16 TR. Further, the Preliminary Decision utilises clauses 6.4.3(a)(6) and 6.4.3(b)(6) of the Rules which allow the carry forward of balances of a control mechanism from one regulatory control period to the next. Consequently the under recovery balance for regulatory years 2010-11, 2011-12 and 2012-13 have been incorporated into the building block for the 2015-20 regulatory control period and therefore removed from the DUoS overs and unders account.

The AER requires the amounts used in Table 2.3 for the most recently completed regulatory year (t-2) (i.e. 2013-14) to be audited. Energex believes this requirement has been met as a consequence of the audit by Queensland Audit Office (QAO) of Energex's statutory financial statements and annual regulatory information notice. Amounts for the next regulatory year (t) are forecast amounts. The overs and unders account is detailed in Table 2.3.

Table 2.3 - DUoS overs and unders account

Over/under account element	2013-14 actual (\$'000)	2015-16 forecast (\$'000)
Revenue from DUoS charges	1,608,332	1,566,074
Less Total Allowed Revenue for the relevant year	1,700,440	1,455,190
Allowed revenues	1,671,893	1,139,798
Incentive scheme adjustments	334	13,500
DUoS under/over adjustment approved by the regulator for year t-2	249	
Transitional under/over adjustments (capital contributions) ¹	9,344	47,278
Approved pass throughs and other adjustments	18,619	254,614
Actual under/over recovery year t-2 (proposed under/over adjustment in year t)	-92,108	110,884
DUoS Unders and Overs Account		
Nominal WACC for year t-2	9.72%	n/a
Nominal WACC for year t-1	9.72%	
Opening balance	-253,766	-110,884
Interest on opening balance for 1 regulatory year	-24,666	n/a
Actual under/over recovery in year t-2 (proposed under/over adjustment in year t)	-92,108	110,884
Interest on under/over recovery for 2 regulatory years	-18,776	n/a
Closing balance²	-389,316	0
Notes:		
1. As per the Regulatory Determination DUoS and Capital Contributions under-recoveries from the 2010-13 regulatory control period have been incorporated in the building block for the 2015-20 regulatory control period. 2013-14 under recovery will be recovered in 2015-16 as an adjustment.		
2. Due to rounding, individual components may not sum to total.		

2.2.4 Demand, energy and customer numbers forecasts

As part of the Regulatory Information Notice (RIN) prepared for regulatory determination, Energex provided the AER with details of the demand and energy forecasts, and expected numbers of customers throughout the 2015-20 regulatory control period. A set of forecasts was approved in the Preliminary Decision and are listed in Table 2.4. The energy forecast for 2015-16 incorporates increasing energy conservation and ongoing growth in residential solar PV.

The forecast customer numbers are based on actual customer numbers with a small allowance for population growth. Forecasts of demand, energy and numbers of customers are used to allocate different costs to tariff classes, as outlined in Appendix 3 - Revenue allocation process.

Table 2.4 – 2015-16 demand, energy and customer number forecasts by SCS tariff class

Tariff class	Maximum demand (MW)	Forecast customer numbers	Forecast energy consumption (GWh)
2015-16 forecast	1,341	1,420,022	20,655
Split of revised forecast into tariff classes:			
ICC	472	54	2,134
CAC	869	534	3,649
SAC	0	1,419,434	14,872
Total	1,341	1,420,022	20,655

3 Standard control services: Tariff classes

RULE REQUIREMENT

Clause 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.

Under Chapter 10 of the Rules, tariff classes are defined as representing ‘a class of customers for one or more direct control services who are subject to a particular tariff or particular tariffs’.

3.1 Tariff classes

RULE REQUIREMENT

Clause 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.

All customers who take supply from Energex for direct control services are a member of at least one tariff class. Direct control services comprise of SCS and ACS to which revenue or price cap will apply respectively. In the final F&A issued in April 2014 and confirmed in the Preliminary Decision, the AER classified network services as SCS and Type 6 metering services, public lighting services⁸, and increasing number of connection services and ancillary services as ACS. Where a customer has both SCS and ACS supplied, they may be a member of two or more tariff classes. More information about tariff class membership is included in section 3.1.1.

As a result of customer feedback and an increased focus on long run marginal cost (LRMC) based pricing, Energex's 2015-20 Regulatory Proposal simplifies tariff classes so as to group retail customers together on a more economically efficient basis and to avoid unnecessary transactions costs in accordance with clause 6.18.3(d) of the Rules. Energex's tariff classes group retail customers on the basis of voltage level, usage profile, and nature of connection in accordance with the principles set out in clause 6.18.4(a)(1) and 6.18.4(a)(2) of the Rules (refer to section 3.2 for further details).

⁸ The conveyance of electricity to street lights remains a SCS, while services relating to the provision, construction and maintenance of street lighting assets have been classified by the AER as ACS.

Tariff classes for SCS are outlined in Table 3.1, and detailed descriptions of each tariff class (and associated tariffs) are included in Table 4.1. More information about ACS tariff classes, charging parameters and customer assignment to tariffs is available in Chapter 12 and Chapter 13.

The underpinning characteristics of the tariff classes broadly reflect the costs associated with provision of service to those customers within the tariff class. Each tariff class consists of a grouping of individual tariffs that are established on the same basis as the tariff classes. This ensures there are not an excessive number of tariffs and that available tariffs are clear and easily understood. Ultimately, this minimises transaction costs that may be incurred by customers from switching between tariffs and by Energex in managing the provision of an excessive number of tariffs.

Table 3.1 – 2015-16 SCS tariff classes

Tariff class	Eligible customers
Individually Calculated Customers (ICC)	<p>Customers with a network coupling point at 110 kV or 33 kV are allocated to the ICC tariff class.</p> <p>Customers with a network coupling point at 11 kV may also be allocated to the ICC tariff class only if they meet the following criteria:</p> <ul style="list-style-type: none"> the customer's electricity consumption is greater than 40 GWh per year at a single connection, and/or the customer's demand is greater than or equal to 10 MVA, and/or the customer's circumstances mean that the allocation of the average shared network charge becomes meaningless or distorted. <p>ICC tariffs are based on:</p> <ul style="list-style-type: none"> the actual dedicated connection assets utilised by the customers, plus the customer's specifically identified portion of the shared distribution network utilised for the electricity supply, including common and non-system assets.
Connection Asset Customers (CAC)	<p>Customers with a network coupling point at 11 kV who are not allocated to the ICC tariff class (e.g. generators with installed capacity greater than or equal to 30 kVA) are allocated to the CAC tariff class.</p> <p>CAC tariffs are based on:</p> <ul style="list-style-type: none"> the actual dedicated connection assets utilised by the customers, plus average charges for use of the shared distribution network including common and non-system assets by the relevant tariff class.
Standard Asset Customers (SAC)	<p>All customers connected at LV are classified as Standard Asset Customers (SACs).</p> <p>SAC tariffs are based on:</p> <ul style="list-style-type: none"> average charges for dedicated connection assets, plus average charges for use of the shared distribution network, including common and non-system assets.

3.1.1 Tariff class membership

To comply with the Rules, Energex's process for tariff assignment, as illustrated in Figure 3.1, ensures no direct control services customer can take supply without being a member of at least one tariff class.

Prior to supply being provided to a customer, they must be assigned to a relevant network tariff. As explained in Table 3.2, where a new customer connection request is received and no tariff is nominated, using the tariff assignment process (as shown in Figure 3.1), the customer will be allocated first to a tariff class and then to a tariff. In these instances, Energex will assign the customer to the relevant default tariff for the tariff class. The relevant default tariff is determined considering the guidelines outlined in section 3.2.

3.2 Assignment and reassignment of customers to tariff classes

RULE REQUIREMENT

Clause 6.18.4 Principles governing assignment or reassignment 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 reassignment 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 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.
- (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.

PRELIMINARY DECISION REQUIREMENT

In accordance with 6.12.1(17) of the Rules, Energex must demonstrate that in assigning customers to a particular tariff class or re-assigning a customer from one tariff class to another should be subject to an effective system of assessment and review.

3.2.1 Tariff class assignment process

The following customer characteristics are taken into account by Energex when determining the applicable tariff class for a potential customer:

- voltage level
- customer size and usage profile
- nature of connection to the network.

In addition to the above, the following guidelines apply:

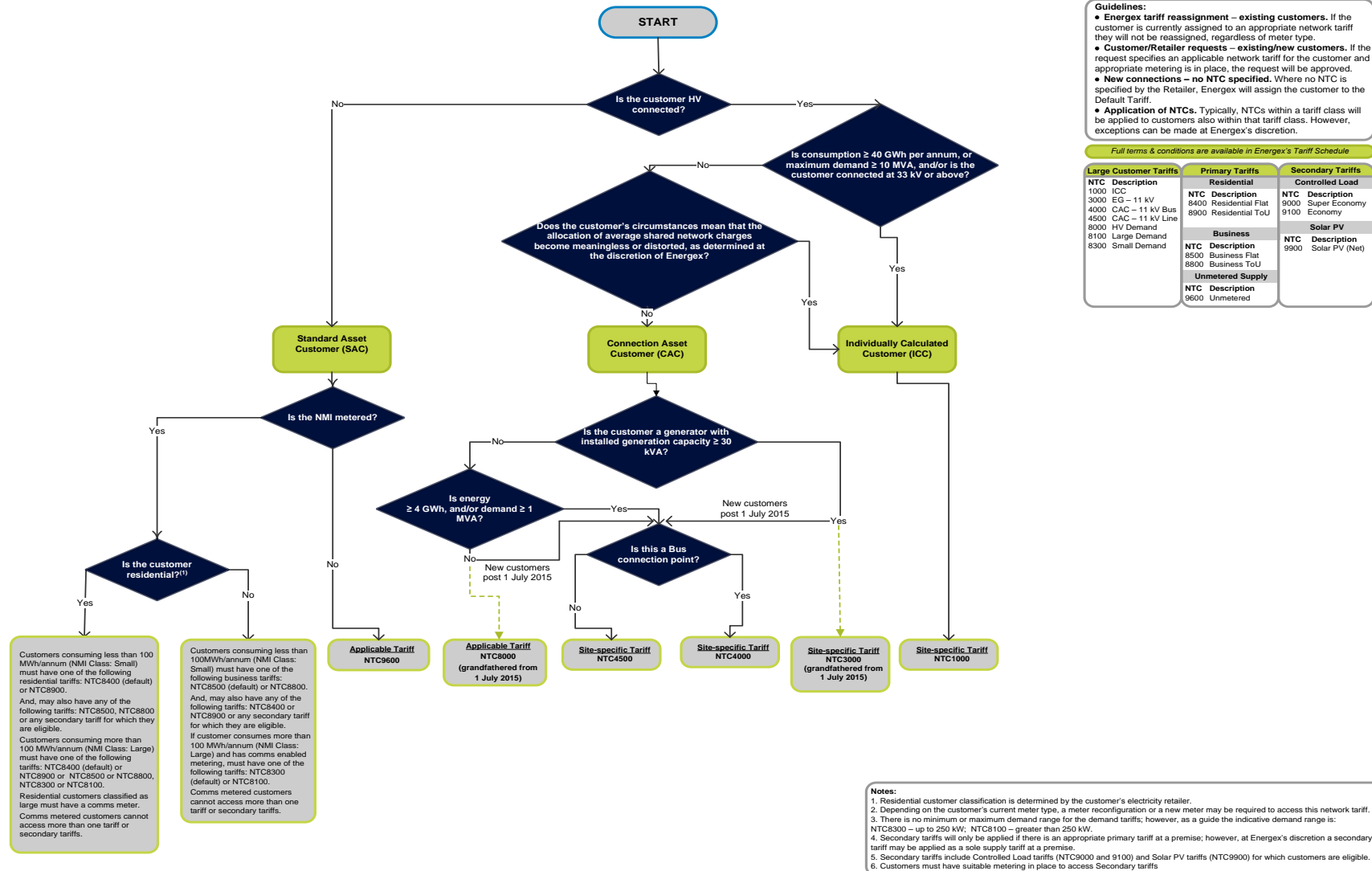
- Allocation of a customer with micro-generation facilities to a tariff will be made on the same basis as other connections in so far as they have similar usage profile. Energex's policy is detailed in section 3.2.2.
- Where a new tariff is applied to a customer, it is standard practice to apply the tariff from the next billing period.
- For new connections with no previous load history, they will be assigned to the appropriate default tariff based on their expected energy usage, supply voltage and meter type.
- Instead of the default tariff, a customer will be assigned to a specific tariff for which they are eligible if requested by their electricity retailer or electrical contractor.
- In accordance with clauses 6.18.4(a)(4) and 6.18.4(b), assignment of customers to tariff classes is reviewed periodically (typically annually) to assess if the tariff assignment is still applicable, given potential changes in usage. A change in connection voltage means that the connection is treated as if it is a new connection and the process in Figure 3.1 will be followed to assign the customer to a suitable tariff class.

The procedure for assigning and reassigning customers to tariff classes relates specifically to the application of tariffs. Customers who have chosen to participate in a tariff trial will not be subject to the review process set out in section 3.2.4.

The process for assigning a customer to a tariff class (and applicable network tariff codes) for SCS is outlined in Figure 3.1. As depicted, within each tariff class, there are a number of tariffs available. Typically, each tariff class has a default tariff that is applied to customers unless a specific tariff is requested by their electricity retailer or electrical contractor.

To limit transaction costs and ensure pricing signals are not distorted by constant changes in customer tariff assignment, customers are generally only allowed one free requested tariff change per 12 month period. For customers with demand levels that fluctuate frequently, Energex may apply a reasonable tolerance limit up to 20 percent on tariff thresholds to mitigate frequent tariff reassignment, and subsequently limit customer impact.

Figure 3.1 - Assignment of customers to SCS tariff classes (flowchart A)



3.2.2 Customers with micro-generation facilities

In accordance with clause 6.18.4(a)(3) of the Rules, it is Energex's policy to treat customers with micro-generation facilities no less favourably than customers without these facilities but with a similar consumption profile. Allocation of a micro-generation customer to a tariff class will be made on the same basis as other customers; this being the extent and nature of usage and the nature of the connection to the network. The network tariff will include fixed and variable components, and if the customer's demand is met entirely by the micro-generator, then the levied charge will only be the fixed connection component.

In the 2015-20 regulatory control period, EGs connected at 110 kV and 33 kV will be allocated to the ICC tariff class and receive site specific pricing. EGs connected at 11 kV will be allocated to the CAC tariff class and will continue to access the EG 11 kV tariff.

Energex's compliance with clause 6.18.4(a)(3) of the Rules is demonstrated by the fact that customers participating in the SBS are treated no less favourably than other customers as the billed consumption of these customers will be unaffected by their participation in the SBS. The tariff class assignment is also unaffected by participation in the SBS.

3.2.3 Customer notification process for tariff class changes

In accordance with Attachment 14 – Control Mechanisms (Appendix D) of the Preliminary Decision, customers and their electricity retailer will be notified of the tariff class to which they have been assigned or reassigned. The process for notifying customers of tariff class changes is outlined in Table 3.2.

Table 3.2 - Customer notification process for tariff class changes

Input to tariff class assignment process	Notification process
Energex-driven reassignment based on a change in usage or connection	Based on NMI classification, Energex identifies customers who are assigned to an incorrect tariff class. The correct tariff class is determined based on the process outlined in Figure 3.1. The customer is notified in writing of the intended tariff class reassignment, and is given the opportunity to object to the proposed reassignment and request a review ¹ of the decision be undertaken prior to the change being initiated.
Customer-driven reassignment (through Energex Form 1634 - QESI)	Energex receives a completed Form 1634 – QESI from the retailer for tariff reassignment. If the request is approved, the customer and their retailer are notified in writing of the tariff reassignment and subsequent tariff class reassignment. If the request is not approved, the customer and their retailer are notified in writing that the tariff reassignment and subsequent tariff class reassignment have not been approved. The customer is given the opportunity to object to the decision and request that a review ¹ be undertaken.

Input to tariff class assignment process	Notification process
New connection	<p>Energex receives notification of a new customer connection.</p> <p>For CAC and ICC customers:</p> <ul style="list-style-type: none"> The correct tariff class is determined based on the process outlined in Figure 3.1. The customer is notified of the tariff classification as part of the Connection Agreement, and is given the opportunity to object to the classification and request a review¹ of the decision. <p>For SAC customers:</p> <ul style="list-style-type: none"> Where a tariff code is nominated on the connection request thus informing tariff class assignment, Energex will confirm if this is appropriate. If a tariff code is not nominated on the connection request, the correct tariff class and tariff code are determined based on the process outlined in Figure 3.1, and the customer is assigned to the default tariff. Notification to the retailer will occur electronically by way of a Change Request notice through Market Settlement and Transfer Solution (MSATS) and the customer is given an opportunity to request a review¹ of the decision.
<p>Notes:</p> <p>1. The process for tariff class assignment objection review is outlined in section 3.2.4.</p>	

Under market rules, it is the responsibility of a customer's electricity retailer to provide Energex with the correct contact details. Where the contact details are known, the customer will be notified directly and their retailer will also be notified. If the contact details are unknown or, if the letter is returned to Energex, Energex will notify the customer's retailer.

3.2.4 Tariff class assignment objections review process

The notification of a tariff class assignment or reassignment will include advice that the customer may request further information from Energex and that they may object to the proposed tariff assignment or reassignment and request that Energex undertake a review.

This notification will include:

- advice that if a customer is not satisfied with their tariff class assignment or reassignment they may request a review of the tariff allocation made by Energex.
- a copy of Energex's internal tariff class assignment/reassignment review procedures or the link to where such information is available on the Energex website.
- advice that if the customer is not satisfied with the review and their objection has not been addressed adequately by Energex's internal review procedures, the next steps include:

-
- for small customers – to the extent that resolution of the dispute is within the jurisdiction of a state based energy ombudsman scheme, the customer is entitled to escalate the matter to such a body.
 - for large customers – the customer is entitled to escalate the matter to the Department of Energy and Water Supply for resolution.
 - advice that if the dispute is still not resolved to the customer's satisfaction, the customer is entitled to seek resolution via the dispute resolution process available under Part 10 of the NEL and enforced by the AER.

If a customer objects to the proposed assignment or reassignment and requests a review be undertaken, Energex will consider this request taking into account clauses 6.18.4(a)(1)–(3) of the Rules, and the process detailed in Figure 3.1 of this Pricing Proposal. Energex will notify the customer and their electricity retailer in writing of its decision and the reasons for that decision.

4 Standard control services: Proposed tariffs

4.1 Description of tariffs

The tariffs for SCS are described in Table 4.1. Typically, customers are restricted to accessing tariffs allocated to the tariff class to which they are assigned. However, in some circumstances, and at Energex's discretion, customers may be able to access tariffs from another tariff class.

Table 4.1 - Descriptions of SCS tariffs

Tariff class	NTCs	Tariff class/tariff description	Tariff details
ICC	1000	<p>This tariff class typically applies to customers with a network coupling point at 110 kV or 33 kV, or with a network coupling point at 11 kV with:</p> <ul style="list-style-type: none"> • electricity consumption greater than 40 GWh per year at a single connection point, and/or • demand greater than or equal to 10 MVA at a single connection point, or • customer circumstances which mean that the allocation of average shared network charge becomes meaningless or distorted. <p>Where there is a network on private property and there are site-specific Energex costs associated with operating, maintaining and accessing the network, these costs should be applied directly to the users of those assets when it is economically efficient to do so.</p> <p>The tariff class also applies to 110 kV and 33 kV connected generators with an installed capacity greater than 30 kVA.</p> <p>Tariffs for connection and access services for generators with a network coupling point at 33 kV or 110 kV will be developed on a similar basis to site-specific customers. This is due to the nature of connections, which are typically non-standard and may require additional embedded generator protection system upgrades.</p> <p>In accordance with the Rules, all generators will receive a charge for connection services regardless of whether they are a net importer or exporter of electricity. However, DUoS charges will not be incurred for the export of electricity generated by the user into the distribution network. Generators who are net importers of electricity will receive appropriate network charges.</p>	<p>The tariffs for ICCs are calculated on a site-specific basis and are confidential – they are provided in Appendix 1.1 – ICC site-specific tariffs (confidential).</p> <p>Energex will provide site-specific tariffs directly to the customer and their electricity retailer.</p>

Tariff class	NTCs	Tariff class/tariff description			Tariff details
CAC	3000 4000 4500 8000	<p>Tariff class typically applies to customers with a network coupling point at 11 kV who are not allocated to the ICC tariff class.</p> <p>Where there is a network on private property and there are site-specific Energex costs associated with operating, maintaining and accessing the network, these costs should be applied directly to the users of those assets when it is economically efficient to do so.</p> <p>CAC tariffs are:</p> <ul style="list-style-type: none"> • EG - 11 kV (3000) • 11 kV Bus (4000) • 11 kV Line (4500) • HV Demand (8000). <p>From 1 July 2015, large customer connections will be redefined to lower the threshold for embedded generators from 1 MVA to 30kVA.</p> <p>In accordance with the Rules, all generators will receive a charge for connection services regardless of whether they are a net importer or exporter of electricity. However, DUoS charges will not be incurred for the export of electricity generated by the user into the distribution network. Generators who are net importers of electricity will receive appropriate network charges.</p> <p>Customers are allocated to only one of the above tariffs based on the nature of their connection to the network.</p> <p>Tariffs NTC3000 and NTC8000 will no longer be offered from 1 July 2015, these tariffs will not be available to new customers.</p>			<p>Tariffs for CACs include a mix of site-specific charging parameters (fixed charge) and general tariff class charging parameters (demand and volume charges).</p> <p>Tariffs for the site-specific charging parameter (fixed charge) are provided in Appendix 1.2 – CAC site-specific tariffs (confidential). Energex will provide these site-specific charges directly to the customer and their electricity retailer.</p> <p>The other charging parameters for CACs are outlined in Table 4.6.</p>
	8100 8300 8400 8500 8800 8900 9000 9100	<p>Tariff class typically applies to customers connected at LV. A SAC tariff may also apply when the customer's connection point has a meter installed that is capable (and programmed) to measure total energy consumption (kWh) only (applicable in limited circumstances).</p> <p>SAC tariffs are:</p>	Demand Large	8100	<p>This tariff is available to large customers with consumption greater than 100 MWh per year. Small customers may voluntarily access this tariff. Customers must have appropriate Type 1-4 metering to access this tariff.</p>
SAC					<p>Tariffs are based on an average shared network price and average connection price.</p> <p>The tariffs for SACs are outlined in Table 4.6.</p> <p>Capital contributions may apply to newly connecting SACs and are sought as prepayment for a revenue shortfall in the case of an uneconomic connection. Energex's capital contributions policy is</p>

Tariff class	NTCs	Tariff class/tariff description			Tariff details
	9600 9900	Demand Small	8300	This tariff is the default tariff for large customers with consumption greater than 100 MWh per year. Small customers may voluntarily access this tariff. Customers must have appropriate Type 1-4 metering to access this tariff.	<p>available on the Energex website.</p> <p>For Super Economy (NTC9000) and Economy (NTC9100) tariffs, specified connected appliances are detailed in Energex's Tariff Schedule.⁹</p> <p>Charging timeframes for Business ToU (8800) are provided in Table 4.4.</p> <p>Charging timeframes for Residential ToU (8900) are provided in Table 4.4.</p>
		Business Flat	8500	This tariff is the default tariff for business customers with consumption less than 100 MWh per year.	
		Business ToU	8800	This tariff is available to business customers with consumption less than 100 MWh per year. This ToU tariff accounts for when, as well as how much, electricity is used by each customer. With ToU, electricity is priced at multiple levels, depending on the time of day. Volume charges are lower during off-peak hours and higher during peak hours. Customers must have ToU-capable metering installed to access this tariff.	
		Residential Flat	8400	This tariff is the default tariff for residential customers regardless of their size and cannot be used in conjunction with Residential ToU (NTC8900).	
		Residential ToU	8900	This tariff is available to residential customers regardless of their size and cannot be used in conjunction with Residential flat (NTC8400). Depending on the time of day, the tariff is priced differently with highest rates during peak hours and lower rates the rest of the day. Customers must have a ToU-capable meter to access this tariff.	
		Solar FiT	9900	<p>This tariff is part of the SBS, and is available to eligible customers participating in the Scheme. The Queensland Government sets the FiT rate (cents per kWh – c/kWh) to be paid for the excess energy generated and fed back into the electricity grid:</p> <p>A 44 c/kWh FiT rate is available to existing customers until 2028 where they continue to meet eligibility requirements.¹⁰</p>	

⁹ Energex's 2015-16 tariff schedule will be published on the Energex website or as soon as practicable.

¹⁰ Additional information on eligibility under the scheme can be accessed from the Department of Energy and Water Supply <http://www.dews.qld.gov.au/energy-water-home/electricity/solar-bonus-scheme>

Tariff class	NTCs	Tariff class/tariff description			Tariff details
		Super Economy	9000	Specified connected appliances are controlled by network equipment so supply will be permanently available for a minimum period of 8 hours per day during time periods set at the absolute discretion of Energex, but usually between the hours of 10:00 pm and 7:00 am.	
		Economy	9100	Specified connected appliances are controlled by network equipment so supply will be available for a minimum period of 18 hours per day during time periods set at the absolute discretion of Energex.	
		Unmetered	9600	This tariff is applicable to unmetered supplies. This includes facilities such as street lighting, public telephones, traffic signals, and public barbecues and watchman lights. Energex only provides connection to the network for these services. The unmetered supply tariff therefore seeks to only recover a contribution towards the shared network (use of system charge). For the provision of street lighting services, additional levies may be incurred; these will be recovered as an ACS.	

4.2 Charging parameters

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposal

(b) A pricing proposal must:

- (3) set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates.

Consistent with the Rules, the tariffs proposed by Energex comprise a number of charging parameters to recover revenue associated with the elements of service, either DUoS, DPPC or SBS FiT payments. The charging parameters relating to each element of service are included in Table 4.2.

Charging parameters are structured to provide signals to customers about the efficient use of the network and their impact on future network capacity and costs. The tariff structure and the proportioning of charge parameters have been developed to achieve the pricing principles in the Rules and Energex's pricing objectives, as discussed in Chapter 2. Energex has sought to select charging parameters for each tariff that signal the impact end users will have on the network while managing demand and volume variance risk, minimising boundary issues within and between tariff classes, and avoiding any signals that may result in perverse outcomes.

Tariff charging parameters include:

- Capacity charges – where appropriate take into account the long term demand peak and can provide effective pricing signals to customers of the next increment of load. The charge is applied as a fixed dollar amount per kVA per month.
- Demand charges – used to take into account short term peaks in demand. The charge is applied as:
 - a fixed dollar price per kW per month or kVA per month for DPPC charges
 - a fixed dollar price per kVA per month for DUoS charges (ICC, CAC and SAC customers on demand based tariffs).
- Volume charges – used, where appropriate, due to limitations with current metering. The charge is applied as a fixed amount (cents) per kilowatt hour (kWh).
- Fixed charges – used to ensure any remaining costs, including costs associated with connection assets, are recovered. The charge is applied as fixed amount (cents) per day.

Table 4.2 - Charging parameters relating to each element of service

Element of service	Fixed charges	Capacity charges	Demand charges	Volume charges
DUoS	✓	✓	✓	✓
DPPC	✓		✓ ¹	✓
SBS FiT			✓	✓
Notes: 1. Monthly maximum demand charge for ICCs is the locational charge as published by Powerlink and consists of the nominated demand plus average demand multiplied by rate.				

4.3 Recovery of DUoS

Network tariffs and charging parameters are designed to recover Energex's allowed revenue, consistent with the calculation of the TR as outlined in Chapter 2. The network charging parameters adopted by Energex for the recovery of DUoS for SCS tariffs are detailed in Table 4.3.

As demonstrated in Table 4.3, Energex does not recover DUoS on electricity generated by customers that is exported by them into the distribution network, as required by clause 6.1.4(a) of the Rules.

Table 4.3 - Tariff charging parameters for DUoS charges

Tariff class	Tariff	Network Tariff Code (NTC)	Tariff charging parameter				
			Fixed charge (\$/day)	Capacity charge ¹ (\$/kVA/month)	Monthly maximum demand charge (\$/kVA/month)	Volume charge flat (c/kWh)	Volume charge ToU (c/kWh)
ICC	ICC	1000	✓	✓	✓		✓
CAC	EG - 11 kV	3000 ²	✓		✓		✓
	11 kV Line	4500					
	11 kV Bus	4000					
	HV Demand	8000 ²					
SAC	Demand Large	8100	✓		✓	✓	
	Demand Small	8300					
	Business Flat	8500	✓			✓	
	Business ToU	8800	✓				✓
	Residential Flat	8400	✓			✓	
	Residential ToU	8900	✓				✓
	Solar FiT	9900	Not Applicable				
	Super Economy	9000				✓	
	Economy	9100				✓	
	Unmetered	9600				✓	
Notes: 1. The capacity charge is levied on the basis of either contracted capacity as specified in the customer connection agreement or maximum capacity based on forecasted information as determined by Energex. 2. These tariffs will no longer be offered from 1 July 2015.							

Fixed charges

For large customers, where network usage signals are provided by other charging parameters, fixed charges reflect the incremental costs that arise from the connection and management of the customer. For small customers, due to metering limitations, the fixed

charges may be used instead of capacity charges to recover a proportion of the average capacity set aside on the shared network for a typical customer using the network.

Demand and capacity charges

Demand charges are reflective of augmentation costs associated with customer demand activity. There are two demand charge parameter types:

- Monthly maximum demand charge:
 - This charge is levied on the basis that network users who place greater pressure on the network should incur higher charges. Network expansion becomes necessary where there is a likelihood of demand exceeding available capacity. It is based on the half hour interval during the month where demand is at its highest.
- Capacity charge:
 - This charge is similar to a monthly maximum demand charge, but more effectively assigns an adequate share of costs associated with system augmentations to network users. The capacity charge reflects the amount of network which is set aside for the customer which could be used by the customer at any time.

Demand charges signal to customers that they can reduce their electricity costs by reducing their peak demand, and thus potentially reduce required future augmentation. Capacity charges account for augmentation costs at the customer connection level and all associated upstream augmentation costs already incurred to provide sufficient network capacity to accommodate peak demand.

The application of demand based charges is limited by the type of metering installed. Demand charges are not appropriate for customers with metering equipment only capable of measuring and recording delivered electricity volume (cumulative meters). As detailed in chapter 11, Energex intends to remove its capacity charges from its CAC tariff class.

Flat volume charges

Flat volume charge parameters provide a mechanism to recover those costs that are related to the volume of the customer's consumption but not specifically the demand the customer places on the network. For some SAC customers, the volume charge parameter recovers costs that would have been recovered from a demand based or capacity charge that are not recovered from the fixed charge.

ToU volume charges

ToU tariffs offer lower charges during off-peak periods and/or shoulder periods and higher charges during peak periods and can be used instead of or in conjunction with a demand charge. The objective of a ToU volume charge is to reduce the demand on the network during peak times by encouraging customers to switch non-essential electricity use to off-peak and/or shoulder periods. This can reduce the infrastructure expenditure required to

meet increasing peak demand and ensure resources are used more efficiently to potentially benefit all customers through reduced network costs over the long term.

Due to metering limitations for small customers, ToU tariffs had not previously been offered prior to 1 July 2012. However, since 2007 all new meters installed in Energex's area are capable (once programmed) of recording energy consumption at different periods of the day resulting in numerous residential customers now having meters capable of supporting ToU pricing.

To provide an incentive for users to decrease consumption during periods of peak demand, the Residential ToU tariff (NTC8900) was introduced in 2012-13. This tariff allows price signals to be sent to customers via the variable charging structure. They also bring Energex's pricing structure in line with other Distribution Network Service Providers (DNSPs) across Australia.

The charging timeframes for Energex's ToU energy tariffs are included in Table 4.4.

Table 4.4 - ToU charging timeframes

Tariff	Network Tariff Code (NTC)	Charging timeframes	Weekdays	Weekends
Residential ToU	8900	Off-Peak	10pm – 7am	10pm – 7am
		Shoulder	7am – 4pm, 8pm – 10pm	7am – 10pm
		Peak	4pm – 8pm	No peak
Business ToU	8800	Off-Peak	9pm – 7am	Anytime
		Peak	7am – 9pm	No peak
ICC, CAC	All network tariffs	Off-Peak	11pm – 7am	Anytime
		Peak	7am – 11pm	No peak

4.4 Other cost recovery

4.4.1 Recovery of DPPC

DPPC includes avoided Transmission Use of System (TUoS) and network support costs. For further information on the breakdown of DPPC, refer to Chapter 8.

Most electricity is delivered from generators to Energex's network via Powerlink's transmission network. Energex pays DPPC to Powerlink on behalf of its customers and recovers these costs through network tariffs. Energex's transmission cost recovery tariffs are based on a forecast of DPPC for each year, adjusted for over or under recoveries.

The DPPC from Powerlink comprises both fixed and variable charges. Where administratively efficient, the forecast DPPC will be passed on to customers in the same form of price structure as it is received.

DPPC charges for ICC tariffs are based on the relevant transmission connection point, plus charges associated with the customer's shared distribution network, plus connection charges based on the customer's connection assets. This provides the greatest cost-reflectivity for these customers and is a feasible method for calculating charges since the number of such customers is relatively small.

DPPC charges for CAC tariffs are based on average DPPC charges, plus average shared network charges, plus site-specific connection charges based on the customer's connection capacity. This provides a significant degree of cost-reflectivity for this group of customers while recognising the practical difficulties of calculating individual shared network charges for each customer.

DPPC charges for SAC tariffs are based on the DUoS tariff structure and are allocated to tariffs proportionally based on average monthly maximum demands.

A forecast of the DPPC is provided to Energex by Powerlink in April each year, allowing Energex to develop tariff components for recovery of the anticipated costs. The network charging parameters applied to each tariff for DPPC services are detailed in Table 4.5.

Table 4.5 - Tariff charging parameters for DPPC

Tariff class	Tariff	Network Tariff Code (NTC)	Tariff charging parameter			
			Fixed charge (\$/day)	Monthly maximum demand charge (\$/kW/month or \$/kVA/month)	Volume charge flat (c/kWh)	Volume charge ToU (c/kWh)
ICC	ICC	1000	✓	✓ ¹	✓ ²	
CAC	EG 11 kV	3000 ³	✓	✓		✓
	11 kV Line	4500				
	11 kV Bus	4000				
	HV Demand	8000 ³				
SAC	Demand Large	8100	✓	✓	✓	
	Demand Small	8300				
	Business Flat	8500	✓		✓	
	Business ToU	8800	✓			✓
	Residential Flat	8400	✓		✓	
	Residential ToU	8900	✓			✓
	Solar FiT	9900	Not Applicable			
	Super Economy	9000			✓	
	Economy	9100			✓	
	Unmetered	9600			✓	

Notes:

1. Monthly maximum demand charge for ICCs is the locational charge as published by Powerlink and consists of the nominated demand plus average demand multiplied by rate.
2. Volume charge for ICCs is a combination of general and common charge as published by Powerlink.
3. These tariffs will no longer be offered from 1 July 2015.

4.4.2 Recovery of SBS FiT payments

For the 2015-20 regulatory control period, Energex will treat SBS FiT payments under the jurisdictional scheme provisions contained in Chapter 6 of the Rules. Forecast SBS FiT amounts are included in the annual Pricing Proposal as a revenue adjustment. Refer to Chapter 10 for further detail.

4.5 Proposed tariffs

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (2) set out the proposed tariffs for each tariff class.

The proposed tariffs for SCS, including DUoS, DPPC, SBS FiT payments and total Network Use of System (NUoS), are provided in Table 4.6. Site-specific tariffs for ICC and CAC customers are provided in Appendix 1.1 – ICC site-specific tariffs and Appendix 1.2 – CAC site-specific tariffs.

The tariffs for SCS are set at the beginning of the regulatory year; however, within a regulatory year there may sometimes be a requirement to include either a tariff for a new ICC or CAC customer or revise the site-specific tariff for an existing customer.

Revision of a site-specific tariff may result from the requirements of a signed connection agreement with the customer, a change in connection assets, or for an ICC, a change in their specific usage of the upstream shared network. This ensures that customers with similar characteristics are treated equitably and is consistent with clause 6.18.4 of the Rules by specifically taking into account the nature and extent of their usage and the nature of their connection to the network. If new or revised charges are required, they will be calculated in accordance with the approved Pricing Proposal and the customer will be notified in accordance with the process outlined in Table 3.2.

Table 4.6 – 2015-16 SCS tariff charges (proposed DUoS, DPPC and NUoS charges)

Tariff Class ⁴	Tariff Description	NTC	DUoS Charges ^{1,2}						DPPC Charges ¹						NUoS ¹					
			Fixed (\$/day)	Demand (\$/kVA/month)	Volume Flat (c/kWh)	Off Peak Volume (c/kWh)	Shoulder Volume (c/kWh)	Peak Volume (c/kWh)	Fixed (\$/day)	Demand (\$/kVA/month)	Volume Flat (c/kWh)	Off Peak Volume (c/kWh)	Shoulder Volume (c/kWh)	Peak Volume (c/kWh)	Fixed (\$/day)	Demand (\$/kVA/month)	Volume Flat (c/kWh)	Off Peak Volume (c/kWh)	Shoulder Volume (c/kWh)	Peak Volume (c/kWh)
CAC ⁵	EG - 11 kV	3000 ³	Site-specific prices are confidential	10.216		0.117		0.177	Site-specific prices are confidential	1.169		0.150		0.150	Site-specific prices are confidential	11.385		0.267		0.327
	11 kV Bus	4000		8.073		0.117		0.177		1.169		0.150		0.150		9.242		0.267		0.327
	11 kV Line	4500		12.490		0.117		0.177		1.169		0.150		0.150		13.659		0.267		0.327
	HV Demand	8000 ³	25.180	11.920	0.102				27.550	2.272	0.992				52.730	14.192	1.094			
SAC	Demand Large	8100	26.826	16.755	0.514				9.827	1.999	1.022				36.653	18.754	1.536			
	Demand Small	8300	3.218	20.898	0.132				1.878	1.296	1.760				5.096	22.194	1.892			
	Business Flat	8500	0.453		10.915				0.255		1.433				0.708		12.348			
	Business ToU	8800	0.453			7.973		12.743	0.255			1.433		1.433	0.708			9.406		14.176
	Residential Flat	8400	0.403		10.295				0.091		1.835				0.494		12.130			
	Residential ToU	8900	0.403			4.928	9.295	17.127	0.091			1.835	1.835	1.835	0.494			6.763	11.130	18.962
	Solar FIT	9900	FIT rate legislated by State Government																	
	Super Economy	9000			4.445						1.835						6.280			
	Economy	9100			8.693						1.835						10.528			
	Unmetered	9600			8.693						1.835						10.528			

Notes:

1. All prices exclude GST.
2. DUoS charges inclusive of adjustments, however for display purposes SBS FIT payments have been combined with DUoS.
3. These tariffs will no longer be offered from 1 July 2015.
4. Tariffs for ICC customers are confidential (see Appendix 1.1 – ICC site-specific tariffs).
5. Fixed charges for CAC customers are site-specific (see Appendix 1.2 – CAC site-specific tariffs).

5 Weighted average revenue

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (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.

The Weighted Average Revenue (WAR) for SCS tariff classes for 2014-15 and 2015-16 is outlined in Table 5.1.

Table 5.1 - Expected weighted average revenue by tariff class

Tariff class	Current regulatory year 2014-15 ^{1,2} (\$m)	Relevant regulatory year 2015-16 ¹ (\$m)
ICC	48.7	45.8
CAC	141.3	142.9
SAC	1,641.9	1,579.6
Total³	1,831.9	1,768.3
Notes:		
1. Revenue excludes GST.		
2. Tariff classes have changed and consequently the figures provided have been restructured as if the tariff classes applied in 2015-16 were applied in 2014-15.		
3. Due to rounding, individual components may not sum to the total.		

6 Side constraints for SCS tariff classes

RULE REQUIREMENT

Clause 6.18.6 Side constraints on tariffs for standard control services

- (a) This clause applies only to tariff classes related to the provision of standard control services.
- (b) The expected weighted average revenue to be raised from a tariff class for a particular regulatory year of a regulatory control period must not exceed the corresponding expected weighted average revenue for the preceding regulatory year in that regulatory control period by more than the permissible percentage.
- (c) The permissible percentage is the greater of the following:
 - (1) the CPI-X limitation on any increase in the Distribution Network Service Provider's expected weighted average revenue between the two regulatory years plus 2%;
Note: The calculation is of the form $(1 + \text{CPI})(1 - X)(1 + 2\%)$
 - (2) CPI plus 2%.
Note: The calculation is of the form $(1 + \text{CPI})(1 + 2\%)$
- (d) In deciding whether the permissible percentage has been exceeded in a particular regulatory year, the following are to be disregarded:
 - (1) the recovery of revenue to accommodate a variation to the distribution determination under rule 6.6 or 6.13;
 - (2) the recovery of revenue to accommodate pass-through of designated pricing proposal charges to retail customers;
 - (3) the recovery of revenue to accommodate pass-through of jurisdictional scheme amounts for approved jurisdictional schemes; and
 - (4) the recovery of revenue to accommodate any increase in the Distribution Network Service Provider's annual revenue requirement by virtue of an application of a formula referred to in clause 6.5.2(1).
- (e) This clause does not, however, limit the extent a tariff for retail customers with remotely-read interval metering or other similar metering technology may vary according to the time or other circumstances of a customer's usage.

Under the Rules, Energex is required to demonstrate that the proposed DUoS tariffs for the next year (t) will, for each tariff class, meet the side constraint formula set out in clause 6.18.6(c).

However, Energex notes that it is not required to comply with the side constraint formula in the first year of the regulatory control period, as such Energex will not be applying the methodology in 2015-16. The requirements defining the side-constraints to tariff classes in clause 6.18.6 of the Rules stipulates that 'the expected weighted average revenue to be raised from a tariff class for a particular year of a regulatory control period must not exceed the corresponding expected weighted average revenue for the preceding regulatory year in that regulatory control period by more than the permissible percentage'.

In determining whether the revenue variation in a tariff class exceeds the permissible percentage, the Rules only allow comparison between years within the same regulatory control period, thereby prohibiting revenue comparisons between years in different regulatory control periods. This implies that side-constraints on tariffs can only apply from the second year of a regulatory control period.

7 Application of pricing principles

RULE REQUIREMENT

Clause 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;
 - (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.

7.1 Estimating avoidable and stand alone costs

In accordance with clause 6.18.5(a) of the Rules, the revenue expected to be recovered from each tariff class should lie on or between the bounds of stand alone and avoidable costs. This section describes how this expectation is met to ensure that the revenue recovered from each tariff class reflects costs and is free from cross subsidies.

Table 7.1 provides estimates which indicate that the expected revenue to be recovered from tariff classes for 2015-16 is between the two bounds created by avoidable and stand alone costs. These costs are described as:

- Avoidable costs – the costs that would be avoided if all customers in a tariff class were no longer connected to the network, assuming that all other customers remain connected.
- Stand alone costs – the costs that would be incurred to service all customers in a tariff class on an individual (i.e. stand alone) basis.

The Rules do not prescribe the approach distribution network service providers (DNSPs) should adopt when determining the avoidable and stand alone costs. Energex's approach outlined in section 7.1.2 and section 7.1.3 remains unchanged from that used in previous Pricing Proposals.

7.1.1 Boundary calculations in DCOS

The DCOS model that Energex uses to calculate tariffs (as described in Chapter 2) generates DUoS tariffs based on the full distribution of the building block costs (plus

adjustments) approved by the AER. Appendix 3 - Revenue allocation process, outlines the tariff revenue allocation process used by Energex.

The DCOS model has also been used to estimate the stand alone and avoidable costs for each tariff class. Table 7.1 outlines which of the DCOS cost categories are used in the calculation of the two price boundaries and converts the DCOS cost categories into tariff charging parameters.

Table 7.1 - DCOS categories used in price boundary calculations and the conversion of DCOS categories into tariffs

DCOS cost category		Price boundaries		Tariff charging parameter		
		Avoidable cost	Stand alone cost	Fixed charge (\$/day)	Volume charge ¹ (c/kWh)	Capacity / demand charge (\$/kVA)
Operating and maintenance (O&M)²	Non-contributed connection assets	✓	✓	✓		
	Contributed connection assets	✓	✓	✓		
	Network assets		✓	✓ ⁴	✓ ⁵	✓
Regulatory depreciation	Non-contributed connection assets	✓	✓	✓		
	Contributed connection assets ³					
	Network assets		✓	✓ ⁴	✓ ⁵	✓
Return on capital	Non-contributed connection assets	✓	✓	✓		
	Contributed connection assets ³					
	Network assets		✓	✓ ⁴	✓ ⁵	✓
Common services			✓		✓	
Non-System			✓	✓	✓	✓
Notes: <ol style="list-style-type: none"> 1. Volume charges can be structured as a flat rate or a ToU rate. 2. O&M represents the application of the AER's building block 'Operating Expenditure'. 3. There is no regulatory depreciation or return on capital for <u>contributed</u> connection assets. 4. For SAC customers on volumetric tariffs the fixed charge comprises a small component of the shared network costs. 5. Applicable to customers on volume (energy) based network tariffs. 						

7.1.2 Lower bound test (avoidable cost)

As shown in Table 7.1, the avoidable costs for a tariff class include the cost of non-contributed connections and the costs of operation and maintenance (O&M) for that connection. The fixed charge for the customer includes these costs, making it the floor price. Any use of the shared network will incur additional charges (in the form of the volume and/or capacity / demand charge parameters), taking the charge paid by any customer above the avoidable cost of supply (the economic cost floor).

7.1.3 Upper bound test (stand alone cost)

In the DCOS model, the infrastructure and operation and maintenance (O&M) costs for upstream assets are shared across multiple customers and tariff classes. For this reason, the allocated cost of supply for each tariff class will be equal to or below the stand alone costs of supply.

In the case of smaller network customers connected at the distribution level (11 kV and below), the allocated cost will be well below stand alone costs as the costs for high voltage assets are shared with larger customers. For larger network customers connected at the sub-transmission level (33 kV and above), the allocated cost model includes a site-specific parameter for supply network costs.

The cost based tariffs for CACs take into account the specific connection costs as well as an allocation of the upstream shared network costs. ICC cost based tariffs are determined by mapping the actual supply network and allocating the relevant proportion of costs to the customers on the basis of their use of that network. Therefore, as there is an allocation of costs and/or the full network costs are allocated in the case of a single user asset, the revenue recovered from tariffs must be equal to or below the stand alone cost of supply (economic cost ceiling).

7.1.4 Cost estimates

The avoidable cost estimate for each tariff class has been developed based on:

- Avoidable capital – the return on capital and depreciation allocations for the non-contributed connection assets.
- Avoidable O&M – those costs allocated to all connection assets for the tariff class in the DCOS model (i.e. annual O&M). Avoidable O&M does not include common and non-system assets as they are incurred irrespective of whether one particular tariff class is no longer connected.
- Total avoidable costs – the sum of avoidable capital and avoidable O&M is represented as an annual charge in Table 7.2.

The stand alone cost estimate for each tariff class has been developed based on:

- Stand alone capital – avoidable capital plus all network (shared) assets required to service the tariff class.

- Stand alone O&M – all annual O&M costs allocated for each tariff class in the DCOS model, including costs for connection and network assets, common services and non-system assets.
- Total stand alone costs – the sum of stand alone capital and stand alone O&M is represented as an annual charge in Table 7.2.

Table 7.2 – 2015-16 Stand alone and avoidable cost boundaries

Tariff class	Avoidable cost (\$m)	Expected revenue (\$m)	Stand alone cost (\$m)
ICC	14.3	45.8	56.9
CAC	19.1	142.9	149.7
SAC	76.6	1,579.6	1,623.2
Total¹	110.1	1,768.3	1,829.8
Notes:			
1. Due to rounding, individual components may not sum to the total.			

7.2 Long-run marginal cost

Clause 6.18.5(b)(1) of the Rules stipulates that, in determining the charging parameters for a tariff class, Energex must take into account the long run marginal cost for the element of the service or the element of the service to which the charging parameter relates.

It can also be noted that the AEMC's recently released rule change on Distribution Network Pricing Arrangements¹¹ requires DNSPs to base network prices on the long run marginal cost (LRMC) of building additional network. The Rule Change will be applicable from 1 July 2017. This Rule Change is also discussed in Section 11.1.

Marginal costs can be calculated as either short run marginal costs (SRMC) or LRMC. Marginal cost is the change in total cost that arises when the quantity produced changes by one unit. In the case of an electricity network, the marginal cost could be the cost incurred from one additional customer connecting to the network or an additional megawatt of demand or electricity consumed. In the short run, investment in capacity is fixed; therefore, the SRMC refers to the cost of a customer connecting to the network but using only the existing network capacity. In the long run, investment in capacity is variable, hence LRMC indicates an estimate of the cost of connecting the customer when an augmentation to the capacity of the network is necessary.

Pricing on the basis of LRMC assumes that prices should be based on the cost of meeting an increase in demand over an extended period of time. As demand on the electricity network increases, network capacity needs to be expanded to accommodate the additional demand. By basing prices on LRMC, Energex can better signal to customers how their

¹¹ [Australian Energy Market Commission, National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014, Rule determination, 27 November 2014.](#)

behaviour impacts the forward augmentation costs of the network and this, in turn, will be better reflected in the prices that consumers pay for electricity.

Energex has estimated LRMC values at the voltage level using the Average Incremental Cost (AIC) method, described in Equation 7.1.

The LRMC values are used as a test to ensure capacity, demand and energy charges incorporated into each tariff are reasonable.

Equation 7.1 - LRMC: average incremental cost method

$$\text{LRMC (AIC)} = \frac{\text{PV(Capex)} + \text{PV(Opex)}}{\text{PV(Incremental Demand)}}$$

where:

'*PV (Capex)*' and '*PV (Opex)*' represent the Present Value (PV) capital and operating costs associated with meeting the additional demand over the regulatory control period.

This calculation method provides an estimate that allows irregular 'lumpy' capital expenditure to be smoothed over time, while providing an indication of the capital and operating costs associated with the increased demand. Thus, the LRMC indicates the level at which future increments of output must be priced to ensure total revenue recovery given forecast demand.

The incremental capital and operating costs associated with increased demand are included in the Energex forecast capex and opex programs for the 2015-20 regulatory control period. Energex receives a return on these (and other) costs in the form of a return on capital and depreciation charges, as approved by the AER. These costs are then allocated to each tariff class in the DCOS model.

LRMC values by voltage level expressed as \$/kVA/month, c/kWh peak energy and c/kWh energy are shown in Table 7.3.

Table 7.3 - LRMC by voltage level

Voltage Level	\$/kVA/month	c/kWh peak energy ^{2,3}	c/kWh energy
110/33 ¹	\$4.69		
11 ¹	\$9.63		
LV business	\$10.12	2.51	1.19
LV residential	\$10.10	10.03	1.19
Notes: 1. LRMC is expressed in terms of annualised demand charges because the associated tariffs reflect LRMC through demand charges only. 2. Business Time of Use hours 7 am to 9 pm. 3. Residential Time of Use hours 4 pm to 8 pm.			

In accordance with clause 6.18.5(b)(1) of the Rules, Energex designs tariffs to include a combination of charging parameters to which it has applied LRMC. Dedicated connection assets are allocated to fixed costs, with shared network, and common and non-system costs being allocated across capacity, demand and volumetric charging parameters.

LRMC is allocated first to the charge parameters most connected with signalling peak demand and then residual costs are allocated across the remaining charge parameters. The order in which tariff charge parameters best reflect LRMC is demand charges followed by peak energy charges, flat energy charges, and fixed charges. This is applied to the Energex suite of tariffs in Table 7.4.

Energex will begin to transition charge elements closer to their LRMC value in 2015-16 and will engage on transitioning towards full LRMC cost reflectivity. Chapters 10 and 11 details how the LRMC will be applied across tariffs during the 2015-20 regulatory period.

Table 7.4 - LRMC and Residual Tariff Charge Parameters

Tariff class	Tariff(s)	LRMC Charge Parameters	Residual Charge Parameters
ICC	• NTC 1000	n/a ¹	
CAC	• NTC3000 EG 11 kV ² • NTC4000 11 kV Bus • NTC4500 11kV Line • NTC8000 HV Demand ²	Demand (\$/kVA/month)	Peak and off-peak energy (c/kWh)
SAC	• NTC8100 Demand Large • NTC8300 Demand Small	Demand (\$/kVA/month)	Flat energy (c/kWh) and fixed charges (\$/day)
	• NTC8400 Residential Flat • NTC8500 Business Flat	Flat energy (c/kWh)	Flat energy (c/kWh) and fixed charges (\$/day)
	• NTC8800 Business ToU • NTC8900 Residential ToU	Peak energy (c/kWh)	Peak and off-peak energy (c/kWh) with balance in fixed charges (\$/day)
	• NTC9600 Unmetered	Flat energy (c/kWh)	Flat energy (c/kWh)
	• NTC9000 Super Economy	n/a ³	Flat energy (c/kWh)
	• NTC9100 Economy	n/a ³	Flat energy (c/kWh)

Notes:

1. ICC's are individually priced.
2. These tariffs will no longer be offered from 1 July 2015.
3. No LRMC (load is switched off during localised peak demand period).

7.3 Transaction costs

For each tariff, Energex has selected a number of charging parameters, identified in Chapter 4 for SCS and Chapter 13 for ACS. Each combination of tariff charging parameters has been selected to reflect the need for both fixed and variable components.

A combination of various parameters is required to achieve economic functionality and to ensure that appropriate pricing signals are provided to customers. However, as required by clause 6.18.5(b)(2)(i) of the Rules, the number and design of these parameters have been selected with regard to minimising the associated transaction and pricing administration costs.

As explained in section 3.1, Energex groups individual tariffs in the same way as tariff classes. This approach ensures that customers are grouped on an economically efficient basis and there are not an excessive number of tariffs available. Ultimately, this minimises transaction costs that may be incurred by the customers through switching between tariffs and by Energex in managing the provision of an excessive number of tariffs.

Additionally, for customers with demand levels that fluctuate frequently, Energex may at its own discretion apply a reasonable tolerance limit up to 20 percent on tariff thresholds to

mitigate frequent tariff reassignment and reduce transaction costs for customers and Energex.

7.4 Response to price signals

Consistent with clause 6.18.5(b)(2)(ii) of the Rules, the tariffs proposed by Energex provide signals to customers about the efficient use of the network and are based on the impact of future network capacity and costs. The charging parameters used to signal customers include capacity, demand and volume charges, which have been priced to allow customers to respond to the signal provided. These parameters are discussed in section 4.3.

- Capacity charges – for customers with an authorised capacity, customers can respond by setting up an efficient network connection. For those who do not have an authorised capacity, capacity is forecasted using prior year maximum annual demand. Customers with an authorised capacity can seek an in-period review based upon changed circumstances (at Energex’s discretion). Customers with no authorised capacity can save money by reducing their annual maximum demand.
- Demand charges - customers can reduce network charges by reducing their maximum consumption over any half hour period throughout the month. This can be achieved by staggering the start time of appliances with significant load, purchasing load management or energy efficient technologies, or turning off other appliances when an appliance is switched on. For demand charges based on kVA, customers can reduce network charges by improving their power factor through the use of power factor correction technology.
- Volume charges – customers can save money by reducing their energy consumption over the billing period. This can be achieved by purchasing energy-efficient appliances or conserving energy.
- ToU volume charges – customers can save money by shifting load out of more expensive periods and into lower cost periods. This can be done through electricity timers that automatically turn appliances on in the off-peak. This can also be achieved through pre-cooling and pre-heating.

Energex is aware of customers’ typical response to price signals. Commercial and industrial customers with capacity and/or demand charges stagger the starting time of equipment such as motors, air-conditioning (A/C) units and large lighting installations, thereby reducing their maximum demand on the network as all the start-up loads are not simultaneous. The short term benefit to the customer is a lower monthly demand charge and, if they effectively manage their longer term maximum demand, they will benefit from reduced capacity charges.

If charged in kVA, customers can also save money by improving their power factor, which reduces the amount of network capacity required to supply energy to customers.

Energy usage costs are affected by the overall electrical efficiency of installations. If customers improve the efficiency of their usage they will reduce their energy-related

charges. For example, this can be achieved by installing more efficient lighting and air conditioning, and improving thermal insulation of cold rooms.

7.5 Tariff adjustment to address revenue shortfalls

When setting network tariffs, Energex uses a combination of charging parameters. These are developed taking into account the LRMC, transaction costs and customer response to pricing signals, as required under clause 6.18.5(b) of the Rules. However, the expected revenue is not fully recovered by LRMC based charging parameters alone. For example, building block revenue is greater than LRMC since it allows for recovery of sunk costs (i.e. it allows for the recovery of long-run average costs).

Accordingly, the charging parameters outlined in Table 4.3 are applied to allow for the collection of residual revenue allowed under Energex's total efficient costs of servicing customers in each tariff. These parameters are selected in a manner which complements the chosen pricing signals and minimises price distortion, as required by clause 6.18.5(c) of the Rules.

8 Transmission cost recovery

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (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.

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

PRELIMINARY DECISION REQUIREMENT

In accordance with clause 6.12.1(19) of the Rules, Energex must maintain an unders and overs account for designated pricing proposal charges. Energex must provide information on this account to the AER as part of its annual pricing proposal.

In accordance with clauses 6.18.2(b)(6) and 6.18.7 of the Rules, tariffs outlined in this Pricing Proposal will allow for the pass-through of DPPC¹², including any adjustments for over or under recovery.

To comply with the Rules, information reported as part of this Pricing Proposal includes:

- Expenses:
 - regulated DPPC paid to Transmission Network Service Providers (TNSPs)
 - avoided charges for the locational component of prescribed TUoS Services (to be referred to as avoided TUoS)
 - payments made to other DNSPs for use of their network.
- Revenue:
 - payments received from network users

¹² DPPC refers to the charges incurred for use of the transmission network, previously referred to as Transmission Use of System (TUoS).

- payments received from other DNSPs.
- Adjustments for over or under recovery:
 - difference between revenue and expenses.

8.1 Expenses

8.1.1 DPPC paid to TNSPs

Energex connects to the Powerlink network at multiple transmission network connection points (TNCPs). Powerlink, as a regulated TNSP, recovers its revenue from directly connected customers and DNSPs connected to its network.

In accordance with the connection agreement with Powerlink, Energex is required to pay DPPC to Powerlink on a monthly basis.

8.1.2 Avoided customer TUoS charges

RULE REQUIREMENT

Clause 5.5 Access arrangements relating to Distribution Networks

- (h) A Distribution Network Service Provider must pass through to a Connection Applicant the amount calculated in accordance with paragraph (i) for the locational component of prescribed TUoS services that would have been payable by the Distribution Network Service Provider to a Transmission Network Service Provider had the Connection Applicant not been connected to its distribution network ('avoided charges for the locational component of prescribed TUoS services').
- (i) To calculate the amount to be passed through to a Connection Applicant in accordance with paragraph (h), a Distribution Network Service Provider must, if prices for the locational component of prescribed TUoS services were in force at the relevant transmission network connection point throughout the relevant financial year:
- (1) determine the charges for the locational component of prescribed TUoS services that would have been payable by the Distribution Network Service Provider for the relevant financial year:
 - (i) where the Connection Applicant is an Embedded Generator, if that Embedded Generator had not injected any energy at its connection point during that financial year;
 - (ii) where the Connection Applicant is a Market Network Service Provider, if the Market Network Service Provider had not been connected to the Distribution Network Service Provider's distribution network during that financial year; and
 - (2) determine the amount by which the charges calculated in subparagraph (1) exceed the amount for the locational component of prescribed TUoS services actually payable by the Distribution Network Service Provider, which amount will be the relevant amount for the purposes of paragraph (h).

In accordance with the Rules, for EGs where prices for the locational component of prescribed DPPC services were applicable at the relevant TNCP during the relevant financial year, Energex will:

- a. Determine the charges for the locational component of prescribed DPPC services that would have been payable by Energex had the EG not injected any energy at its connection point during that financial year.
- b. Determine the amount by which the charges calculated in (a) exceed the amount for the locational component of prescribed DPPC services actually payable by Energex.

- c. Credit the value from (b) to the EG account.

For 2015-16, avoided TUoS payments will generally be remitted in the form of a lump sum payment after 30 June 2016, similar to previous years.

Payments associated with avoided TUoS to EGs by Energex reflects the avoided costs of upstream transmission network reinforcement – that is, avoided TUoS does not solely impact on the TNCP to which the EG is connected. Consequently, the benefits of avoided TUoS relate to all customers and have been assigned to all tariff classes.

8.1.3 Payments to other DNSPs

In contingency circumstances, Essential Energy (the DNSP in northern New South Wales) provides supply from its Terranora Substation to Energex's Kirra Zone Substation. Under this arrangement, Essential Energy requires Energex to pay for the use of its assets.

The charges established by Essential Energy in respect of this arrangement are based on approved rates for each month in which the alternate supply is utilised. These costs have been incorporated into the costs for the Mudgeeraba TNCP and are consequently passed through to users.

8.2 Revenue

8.2.1 Recovery of DPPC through tariffs

Energex's transmission cost are based on a forecast of DPPC charges for each year, adjusted for over and under recoveries to be applied that year. Energex does not recover DPPC charges through its revenue requirement or jurisdictional scheme.

A detailed description of how DPPC is recovered through standard control tariffs is given in sections 4.4.1 and 4.2. The total revenue received is indicated in Table 8.1.

8.2.2 DPPC Payments

Energex does not currently receive any transmission-related payments from other DNSPs.

8.3 DPPC overs and unders accounts

As part of the requirements of Appendix B of Attachment 14 of the Preliminary Decision Energex determination 2015-16 to 2019-20, Energex is required to provide amounts for the following entries in its DPPC overs and unders account for the most recently completed regulatory year (t-2) and the next regulatory year (t). For this 2015-16 Pricing Proposal, year t-2 is 2013-14 and year t is 2015-16.

The overs and unders account is detailed in Table 8.1.

In proposing variations to the amount and structure of DPPC for a given regulatory year (t), Energex will achieve a zero expected balance on the DPPC overs and unders account at the end of each regulatory year in the Regulatory control period.

The AER requires the amounts used in the table below for the most recently completed regulatory year (t-2) (i.e. 2013-14) to be audited. Energex believes this requirement has been met as part of the statutory or regulatory account audits certified by Queensland Audit Office (QAO).

Amounts for the next regulatory year (t) are forecast amounts.

Table 8.1 - DPPC overs and unders account

Over/under account element	2013-14 actual (\$'000)	2015-16 forecast (\$'000)
Revenue from DPPC charges	407,053	407,074
Less under/over adjustment approved by the regulator for year t-2	-13,699	n/a
Less total transmission related payments	404,185	394,034
Transmission charges to be paid to TNSPs	402,293	392,047
Avoided customer TUoS payments	190	203
Payment to other DNSPs	1,702	1,784
Under/over recovery for regulatory year	-10,832	13,040
Unders and Overs Account		
Nominal WACC for year t-2	9.72%	n/a
Nominal WACC for year t-1		
Opening balance	-	- 13,040
Interest on opening balance		
Under/over recovery in year t-2	- 10,832	13,040
Interest on under/over recovery for year t-2	- 2,208	n/a
Closing balance¹	- 13,040	0
Notes:		
1. Due to rounding, individual components may not sum to total.		

9 Jurisdictional schemes

RULE REQUIREMENT

Clause 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.

Clause 6.18.7A Recovery of jurisdictional scheme amounts

Pricing Proposal

(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.

Energex became subject to the Queensland Government SBS obligations from 1 July 2008. The SBS requires Energex to allow customers to connect their qualifying small solar PV generators to its distribution network so that they can export their surplus electricity generated from solar PV systems. Energex is obliged to make feed-in tariff payments to customers through the operation of Clause 44A of the Electricity Act 1994 (QLD).

Customers who joined the scheme before 10 July 2012 and continue to meet eligibility requirements are paid 44 cents per kWh for surplus electricity fed into the grid. Those customers will continue to receive a FiT payment at this rate until 30 June 2028. The cost of the FiT incentives required under the SBS is funded by electricity consumers within each distribution area.

9.1 Approach for the recovery of annual SBS FiT payments

For the 2015-20 regulatory control period, Energex will treat the Queensland Government's SBS FiT payments under the jurisdictional scheme provisions contained in Chapter 6 of the Rules.

As a jurisdictional scheme, SBS FiT payments are excluded from the control mechanism formula set out in the AER's Preliminary Decision for SCS, and therefore are no longer included in DUoS charges. However, to determine total revenue upon which Energex sets its prices, SBS FiT payments have been added to the allowed revenue. As a result, SBS FiT payments will be passed through to customers in a cost reflective manner and allocated to SCS tariffs proportional to the allocation of shared network revenues for each tariff.

9.2 Forecast of SBS FiT payments to customers

Energex has established the forecast value of SBS FiT payments to be recovered in 2015-16 based on historical trends using actual SBS payments and information to 31 March 2015 and by applying the following formula:

Figure 9.1 Formula for calculation of forecast SBS payments

Forecast SBS payments are calculated as follows:

SBS FiT payments = feed-in tariff rate x estimated exported energy;

where estimated exported energy = forecast number of eligible systems x estimated annual exported energy per system.

Estimated exported energy per system is reviewed annually against actual outcomes to ensure continued accuracy of the estimate. Table 9.1 includes the values of the inputs used to estimate the 2015-16 SBS FiT payments.

Table 9.1 - Forecast for 2015-16 SBS FiT payments

	2015-16
Average number of systems	184,886
Average export per system (kWh)	2,472
Export rate (c/kWh)	0.44
Solar FiT Payment (\$M)	202.2

The allocation of the SBS FiT payments among the tariff classes and tariffs is presented in Table 4.6 in section 4.3.

9.3 SBS FiT payments overs and unders account

RULE REQUIREMENT

Clause 6.18.7A Recovery of jurisdictional scheme amounts

Pricing Proposal

- (b) 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).
- (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 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.

PRELIMINARY DECISION REQUIREMENT

In accordance with clause 6.12.1(20) of the Rules, Energex is required to maintain a jurisdictional scheme unders and overs account. Energex must provide information on this account to the AER as part of its annual pricing proposal.

As part of the requirements set out in the Rules and the AER's Preliminary Decision, Energex is required to provide amounts for the overs and unders relating to jurisdictional

schemes for the most recently completed regulatory year t-2, being 2013-14, and the next regulatory year t, being 2015-16.

Such requirement is not relevant to this 2015-16 Pricing Proposal as 2015-16 is the start of the 2015-20 regulatory control period and it is the first year when the SBS FiT payments is implemented as a jurisdictional scheme. As a result, the unders and overs account has a balance of zero.

9.4 Amendments to the SBS as jurisdictional scheme

RULE REQUIREMENT

Clause 6.18.2 Pricing proposals

(b) A pricing proposal must:

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

Clause 6.18.2 (b)(6B) does not apply to the SBS as it was not approved by the AER. The SBS was established under section 44A of the Electricity Act and therefore classified as a jurisdictional scheme in accordance with clause 6.18.7A (e)(1) of the Rules.

10 Changes from previous regulatory year

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (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.

This section outlines changes between 2014-15 and 2015-16, including adjustments to TR components, changes to tariffs and tariff classes, and changes to the approach to price setting. It also details potential changes within the regulatory year. An analysis of the customer impacts of the various changes is included in Chapter 14.

10.1 Summary of annual adjustments

As shown in Table 2.2, various adjustments are made to the annual revenue requirement for the relevant regulatory year to calculate the TR. A summary of the annual adjustments is included in Table 10.1.

These adjustments ensure the TR accounts for changes in the value of various revenue components between regulatory years and regulatory control periods.

Table 10.1 - Summary of annual adjustments

Component / adjustment	2014-15 value (\$m)	2015-16 value (\$m)	Reason for change
CPI	2.93%	1.72% ¹	Annual adjustment as per information published by the ABS. See section 10.1.1 for further information.
X Factor	-1.42%	40.05%	The 2014-15 X Factor was specified in Tribunal Order. 2015 - 16 X Factor as published in the AER Preliminary Decision.
Capital contributions	29.4	47.3	The value in 2014-15 relates to under recovery in 2012-13. The value in 2015-16 relates to under recovery in 2013-14.

Component / adjustment	2014-15 value (\$m)	2015-16 value (\$m)	Reason for change
STPIS	34.6	13.5	<p>The value in 2014-15 relates to the remaining 99 per cent portion of 2011-12 STPIS reward. The adjustment is consistent with the S-banking approval from AER received on 22 April 2013.</p> <p>The value in 2015-16 relates to a portion of the 2012-13 STPIS reward¹. The adjustments are consistent with the S-banking approvals from the AER received on 21 February and 19 December 2014. Energex proposes S-banking of 2013-14 STPIS for recovery in 2016-17.</p>
SBS FiT payments pass-through	185.6	254.6	The value in 2014-15 relates to approved FiT pass through for 2012-13. The value in 2015-16 relates to the approved FiT pass-through for 2013-14.
SBS FiT payments (jurisdictional scheme)	N/A	202.2	The value in 2015-16 relates to the forecast expected payments to be made in that year for the SBS as a jurisdictional scheme.
ENCAP Revenue reduction	-69.5	N/A	Reduction in revenue in 2014-15 due to ENCAP review. See Section 10.1.2 for further information.
DUoS under recovery	0.0	110.9	No under recovery was collected in 2014-15. DUoS under recovery for 2013-14 is to be recovered in 2015-16 as per the Preliminary Decision.
Note: <ol style="list-style-type: none"> Not applicable to the 2015-16 Annual Pricing Proposal as the revenue is based on the AER Preliminary Decision. Energex only seeks to recover a portion of the 2012-13 STPIS, representing the incremental costs incurred by Energex in responding to ex-tropical cyclone Oswald. 			

10.1.1 Adjustments required by the Preliminary Decision

The Preliminary Decision sets out a number of adjustments to be made annually for calculating the TR, including:

- CPI (Preliminary Decision – Attachment 6) – Energex is to use a CPI factor based on the year to December t-1. This CPI factor is the annual percentage change in the ABS CPI for All Groups, Weighted Average of Eight Capital Cities from December in year t-2 to December in year t-1.

- STPIS (Preliminary Decision – Attachment 11) – Annual adjustment to reflect the STPIS reward/penalty from year t-2 (2013-14), as approved by the AER. As per Energex's 2014-15 Pricing Proposal, Energex is entitled to recover the 2012-13 STPIS reward as per the S-banking mechanism, as approved by the AER on 21 February 2014.
- SBS FiT payments pass-through (Preliminary Decision – Attachment 1) – Annually adjusted figure to account for FiT pass-through in year t-2 (2013-14), as approved by the AER on 19 December 2014.¹³
- SBS FiT payments (Preliminary Decision – Attachment 1) – Forecast SBS FiT payments to be paid in the 2015-16 financial year.
- DUoS over or under recovery (Preliminary Decision – Attachment 1) – Under recoveries for years between 2010-11 and 2012-13 from the prior regulatory control period have been incorporated in the building blocks for Standard Control Services pricing via a carry-over mechanism between regulatory control periods. DUoS under recoveries from 2013-14 are to be recovered in 2015-16 as a pass through as per the Preliminary Decision.

The X Factor for 2015-16 is 40.05 per cent as per the Preliminary Decision.

10.1.2 Other adjustments

Based on the anticipated easing of pricing pressures in the 2015-20 regulatory control period, and to smooth volatility in prices over the longer term, Energex included the closing balance of the DUoS and capital contribution under recoveries for the prior regulatory control period to 30 June 2013 in the building block for SCS pricing via a carry-over mechanism.

DUoS under recoveries from 2013-14 are to be recovered in 2015-16 as a pass through as per the Preliminary Decision.

10.2 Changes to SCS tariff classes

As a result of customer feedback and the increased focus on long run marginal cost based pricing, Energex's 2015-20 Regulatory Proposal simplified tariff classes so as to group retail customers together on a more economically efficient basis and to avoid unnecessary transaction costs in accordance with clause 6.18.3(d) of the Rules. The new tariff classes group retail customers on the basis of usage profile, voltage level and nature of connection in accordance with clause 6.18.4(a)(1) and 6.18.4(a)(2) of the Rules.

Table 10.2 and Figure 10.1 illustrate the change in allocation of customers to tariff classes.

¹³ [AER, Determination 2013-14 Queensland solar bonus scheme pass through for Energex, December 2014.](#)

Table 10.2 - Summary of changes to tariff classes

Tariff(s)	Tariff Class 2014-15	Tariff Class 2015-16	Explanation
<ul style="list-style-type: none"> NTC1000 	ICC	ICC	No change.
<ul style="list-style-type: none"> NTC2000 EG – 110 kV NTC2500 EG – 33 kV 	EG	ICC	All 110 and 33 kV connected customers moved to the ICC tariff class to enable site specific cost reflective pricing.
<ul style="list-style-type: none"> NTC3000 EG – 11 kV¹ 	EG	CAC	All 11 kV connected customers moved to the CAC tariff class to enable consistent application of 11 kV LRMC signals and simplify tariff and tariff class arrangements.
<ul style="list-style-type: none"> NTC3500 – 33 kV 	CAC	ICC	All 110 and 33 kV connected customers moved to the ICC tariff class to enable site specific cost reflective pricing.
<ul style="list-style-type: none"> NTC4000 – 11 kV Bus NTC4500 – 11 kV Line 	CAC	CAC	No change.
<ul style="list-style-type: none"> NTC8000 HV Demand¹ 	SAC Demand	CAC	All 11 kV connected customers moved to the CAC tariff class to enable consistent application of 11 kV LRMC signals and simplify tariff and tariff class arrangements. Customers on NTC8000 will be transitioned to either NTC4000 11 kV Line or NTC4500 11 kV Bus.
<ul style="list-style-type: none"> NTC8100 Demand Large NTC8300 Demand Small 	SAC Demand	SAC	All LV connected SAC Demand customers moved to the SAC tariff class to enable consistent application of LV LRMC signals and simplify tariff and tariff class arrangements.
<ul style="list-style-type: none"> NTC8400 Residential Flat NTC8500 Business Flat NTC8800 Business ToU NTC8900 Residential ToU NTC9000 Super Economy NTC9100 Economy NTC9600 Unmetered NTC9900 Solar FiT 	SAC Non-Demand	SAC	Tariff class renamed from SAC Non-Demand to SAC. With the introduction of demand based tariffs to customers in the SAC Non-Demand tariff class likely within the 2015-20 regulatory control period, there is no longer a benefit in differentiating between LV customers based on the structure of their network tariff.

Notes:

1. These tariffs will no longer be offered from 1 July 2015.

10.3 Changes to SCS tariffs

Energex has an ongoing program for reviewing network tariffs for its customers. The changes proposed for 2015-16 are designed to better reflect the cost of providing network services to customers. Customer engagement has underpinned each of these decisions in alignment with the recent Distribution Pricing Arrangements rule change.¹⁴ As demonstrated below, Energex has also considered the impact on customers by ensuring that customers do not experience price increases above a pre-defined percentage or by offering funding assistance and advice.

10.3.1 Discontinuation of tariffs as a result of changes to tariff classes

The change to tariff classes, described in section 10.2, implies that there will no longer be any customers assigned to tariffs NTC2000 EG – 110 kV, NTC2500 EG – 33 kV or NTC3500 CAC – 33 kV. These customers are now assigned to NTC1000 – ICC. As a result, tariffs NTC2000, NTC2500 and NTC3500 will be discontinued.

10.3.2 Reallocation of customers to tariffs as a result of changes to tariff classes

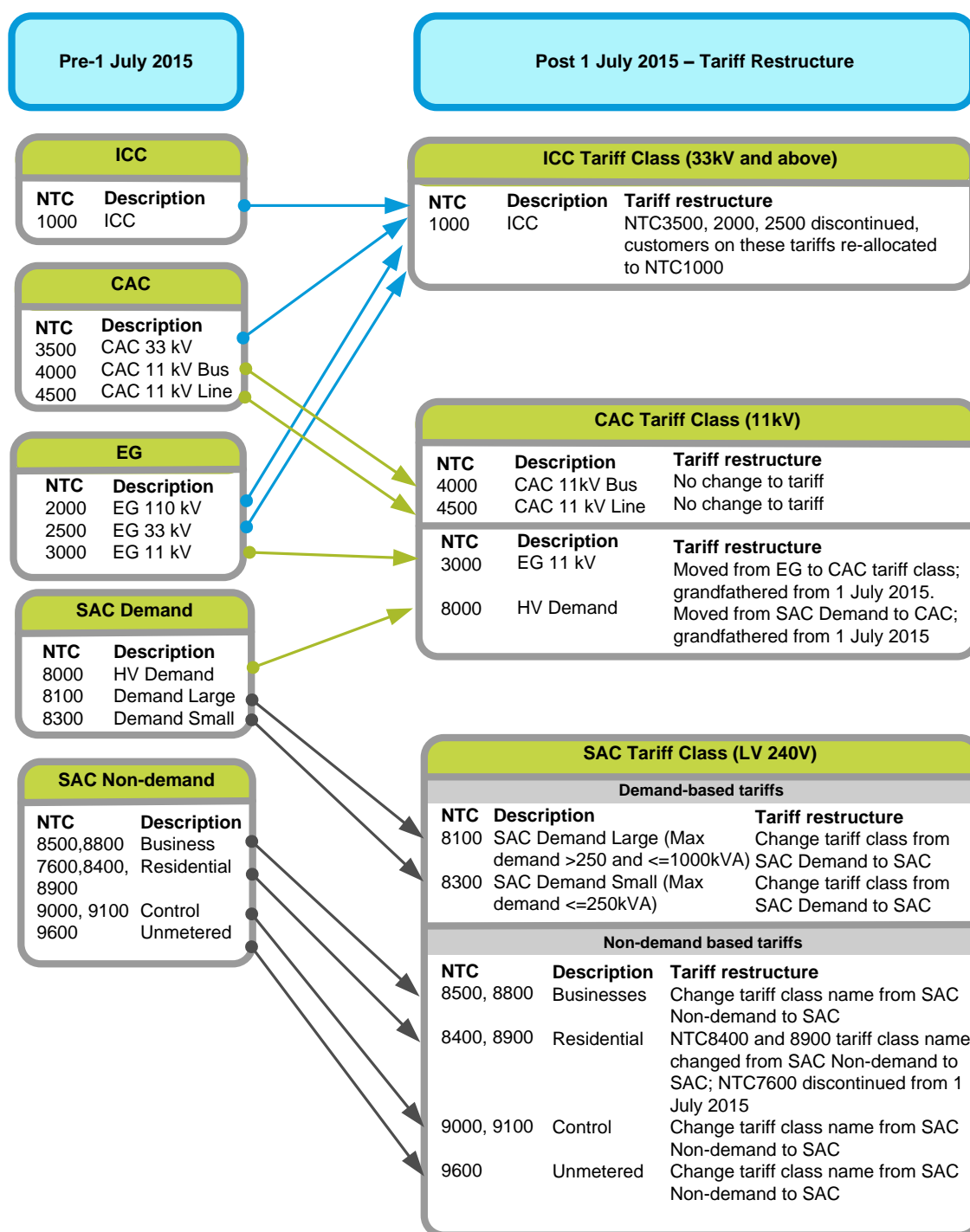
The change to tariff classes, described in section 10.2, necessitates a review of tariff assignment for NTC8000 HV Demand customers. These customers will be moved from the SAC Demand to CAC tariff class from 1 July 2015 and currently have common fixed charges. Energex is currently reviewing the connection assets of each of these customers to facilitate connection asset based fixed charge pricing in alignment with the other customers allocated to the CAC tariff class. These customers will be moved to NTC4000 11 kV Bus or NTC4500 11 kV Line tariffs throughout 2015-16 and 2016-17 as their individual fixed charges are estimated. Network tariff NTC8000 HV Demand will no longer be offered from 1 July 2015, and discontinued once all customers have transitioned to NTC4000 11 kV Bus or NTC4500 11 kV Line tariffs.

It can also be noted that NTC3000 – EG 11 kV will be moved to CAC tariff class in 2015-16 to provide these customers with stronger cost-reflective signals. The tariff will no longer be offered from 1 July 2015 to reduce the costs associated its administration. New 11 kV embedded generation customers will be allocated to tariff NTC4000 11kV Bus or NTC4500 11kV Line, the structure of these tariffs better signal the network cost of supply to these customers. Furthermore, Energex is of the view that NTC4000 11kV Bus and NTC4500 11kV Line are closer to LRMC and consequently in greater alignment with cost reflective prices.

Figure 10.1 below illustrates the tariff changes implemented from 1 July 2015.

¹⁴ [AEMC, Final Rule Determination: National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014, November 2014.](#)

Figure 10.1 - Tariff Restructure from 1 July 2015



10.3.3 Removal of CAC capacity charges

For CACs, the existing DUoS authorised capacity charge will be removed from 1 July 2015. The purpose of the authorised capacity charge was to signal to customers the value of the shared network Energex maintains for their purposes. Charging for authorised capacity (essentially a fixed charge) discouraged customers from over signalling the size of the shared network Energex should maintain in the future.

However, authorised capacity can be a poor proxy for the actual shared network maintained for the customer because it does not take into consideration the time in which the network capacity is utilised and nor long term changes in consumption behaviour.

Table 10.3 below demonstrates Energex's greater alignment of its proposed tariff change with the pricing principles set out by the AEMC.¹⁵

Table 10.3 Alignment with pricing principles

Pricing Principles	Alignment
Cost reflectivity	Recovery of shared network costs through demand charges only, rather than through both demand and authorised capacity charges, is argued to be more cost reflective because it allows customers to be rewarded for changes to their consumption behaviour which is beneficial to the network, and does not charge customers on an ongoing basis for demand that may not have negatively impacted the network.
No cross-subsidisation	For billing purposes, it was necessary to use the maximum demand in the prior year as a proxy for authorised capacity in circumstances where customers do not have a contract stating an authorised capacity. This generated a cross subsidy as maximum demand is always equal to or less than authorised capacity. The removal of the authorised capacity charge addresses this cross subsidy.
Efficient price signal	A tariff structure without an authorised capacity charge is more efficient to deliver than an equivalent tariff structure with an authorised capacity charge because of the fewer tariff charge elements and reduction in administrative costs.
Consumer impact	A consumer impact study was completed for the proposed tariff change and no customer was estimated to be impacted by greater than 5 per cent due to this proposal, presuming no change to consumption patterns.

10.3.4 Change from kW to kVA based demand charges for SAC customers on demand tariffs

From 1 July 2015, DUoS and DPPC demand will be charged in kVA for SAC customers on demand tariffs (formerly SAC Demand), replacing the current kW charge. This is a continuation on the program to implement kVA pricing that was rolled out to ICC, CAC and EG customers in 2013-14 and 2014-15.

Tariffs based on kVA are considered to be a more accurate measure of a customer's impact on the costs of building and maintaining the network, relative to tariffs based on kW,

¹⁵ [AEMC, National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014 No.9, 1 December 2014.](#)

because they also take into account the reactive power component of the customer's network usage. This proposed change is primarily intended to reduce the levels of cross-subsidies from efficient to inefficient large consumers in South East Queensland. Furthermore, the proposed change to kVA based demand tariff aligns demand based SAC customers in South East Queensland with other Australian DNSPs. The proposed change was foreshadowed in Energex's 2014-15 Annual Pricing Proposal.

In considering the introduction of kVA based demand charging for SAC customers on demand-based tariffs from 1 July 2015, Energex undertook consultation with representative bodies and electricity retailers. Energex is extensively communicating with customers, providing information and options to improve their energy use.

During 2014-15, eligible customers who are expected to experience an increase in network charges as a result of the introduction of kVA based demand charging were offered funding assistance for the installation of power factor correction equipment through Energex's Demand Management Funding Scheme.

Table 10.4 below demonstrates Energex's greater alignment of its proposed tariff change with the pricing principles set out by the AEMC.¹⁶

Table 10.4 - Alignment with pricing principles

Pricing Principles	Alignment
Cost reflectivity	kVA based charges are more accurate measure of a customer's impact on the electricity network compared to a tariff based on kW alone, as they account for the reactive power generated by a customer's equipment.
No cross-subsidisation	Efficient customers will not have to subsidise those business customers with inefficient equipment.
Efficient price signal	Some customers with inefficient use of their connection do not comply with the requirement to have a power factor of at least 0.8 (s.36(2)(d) of the Queensland Electricity Regulation). Changing to a kVA based demand tariff will provide clear commercial incentive for those customers to improve their energy use efficiency.
Consumer impact	Customers are informed about the impact of the change and of any funding that may be available to subsidise the installation of power factor correction equipment at their site.

10.3.5 Discontinuation of NTC7600 PeakSmart ToU

Since its initial offering in 2013-14, the PeakSmart ToU tariff has failed to achieve significant customer uptake. In addition, the volumetric nature of this tariff means it is out of alignment with Energex's broader strategy to implement demand based tariffs for residential

¹⁶ [AEMC, National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014 No.9, 1 December 2014.](#)

customers. Consequently, this tariff will be discontinued as of 30 June 2015. Further modelling, research and engagement will occur throughout 2015-16 in order to develop an alternative demand response tariff that is appealing to customers and the broader market, and that is in alignment with Energex's broader demand based tariff strategy for SAC customers.

10.4 Changes to SCS tariffs within the 2015-16 regulatory year

RULE REQUIREMENT

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (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.

SAC tariffs typically remain unchanged within the regulatory year; however, some customers may participate in voluntary tariff trials. These tariffs will be specifically designed to determine customer behaviour and may have special tariff elements for this purpose. More details on these tariffs are contained in Chapter 11.

The tariffs for larger customers are most likely to change where there are changes specific to an individual customer's connection arrangements and/or there is a material change in use of the site. There is also the possibility of Government-mandated tariff changes. An example of such a change is the setting of prices for some ACS via Schedule 8 of the *Queensland Electricity Regulation 2006*.¹⁷

Any tariff changes for either SCS or ACS during the 2015-16 regulatory year would be developed taking into account the principles and objectives outlined in Chapter 2.

10.5 Changes to ACS

The AER issued its final F&A on the 30 April 2014, which broadened the services classified as ACS from 1 July 2015 with a view to increase cost reflectivity and reduce cross subsidisation in relation to these services.

The number of connection services and ancillary network services now included under ACS has increased with the reclassification of Type 6 metering to ACS being the largest change. Type 6 meters are manually read accumulation meters which simply record total electricity usage and are the current default meter type for households and other small customers.

In addition to the reclassification impacts, the AER has also proposed to move away from grouping these services based on their control mechanism (i.e. fixed fee, quoted) to grouping based on type of service. It should be noted that street lighting, whilst technically a fixed fee based on a limited building block, was separated out due to its specialised nature. Refer to Table 10.5 for a comparison of grouping from 2010-15 to 2015-20.

¹⁷ Details of the services which are included under Schedule 8 can be found at <https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/E/ElectricR06.pdf>, page 162.

Table 10.5 - Change in grouping of alternative control services

2010-15	2015-20
Fixed fee (price cap) – street lighting ¹ Fixed fee (price cap) Quoted	Connections Ancillary network services Metering services Public lighting services ² (All of the above comprise both price cap and quoted services)
Notes: 1. Represents the fixed fee derived from the limited building block approach to the provision, construction and maintenance of street lighting assets. Please note that other public lighting services exist (eg glare screens and unique luminaires) and have been classified under fixed fee (price cap) or quoted. 2. Incorporates all public lighting services including fixed fee (price cap) – street lighting (limited building block) and those public lighting services previously contained under fixed fee and quoted services.	

10.5.1 Metering services

Type 6 metering services have been defined¹⁸ to include meter provision, installation maintenance, reading and data services of Type 6 meters. Previously these costs were classified as SCS and recovered based on the DUoS building block.

In accordance with the AER's final F&A and subsequent Preliminary Decision, these costs have been reclassified as ACS. Energex employed a limited building block approach to develop a price cap in the form of a daily metering service charges (capital and/or non-capital component), based on applicable tariffs, whether customers have an existing or new connection as at 1 July 2015 and whether customers have remained a Type 6 customer and churned away to an alternative provider. This change has allowed a more cost reflective pricing mechanism for the provision of metering services and a reduction of cross subsidisation across customers with different circumstances and requiring different levels of metering configurations.

In accordance with the AER's Preliminary Decision, Energex is proposing the following metering service charges:¹⁹

- An annual charge comprising of two components:
 - Capital component – metering asset base (MAB) recovery
 - Non-capital component – Operating expenditure and tax
- Auxiliary metering services which are customer requested and charged on a 'user pay' basis. This includes the provision and installation of all new and upgraded Type 6 meters from 1 July 2015 which will be charged upfront.

It can be noted that the AER did not accept Energex's proposal to recover the residual metering capital costs from customers transferring to alternative metering providers through

¹⁸ [AER, Final Framework and Approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015, April 2014](#)

¹⁹ AER Preliminary Decision – Energex determination 2015-16 to 2019-20, Attachment 16 – Alternative Control Services, April 2015, page 19.

an exit fee. Rather, the AER's Preliminary Decision proposes to continue charging existing (pre 1 July 2015) customers who opt to upgrade their meter and/or wish to churn for the capital component of the annual metering charge to recover the residual value of the stranded assets on an on-going basis. This is in line with the AEMC's objective to facilitate competition in metering and related services that will support a market led roll out of advanced meter technology. Such technology will enhance decisions on how customers want to use electricity.

With the exception of the aforementioned upfront charge for new and upgraded meters there are minimal changes to the auxiliary metering services.

10.5.2 Connection Services

Whilst many connection services were already classified as ACS (e.g. design and construction of large customer connections), the range of services included under this category has been extended to include:

- commissioning and energisation of large customer connections
- real estate development (sub-division) connections
- removal of network constraints for embedded generators
- accreditation of alternative service providers.

As part of the changes to connection services, the threshold for large customer connections has been lowered for embedded generation connections to incorporate those connections greater than 30 kVA.

The above changes help reduce cross subsidisation by moving towards more cost reflective, 'user pays' pricing mechanisms.

11 Tariff strategy

Energex's commercial sustainability is dependent on successfully navigating the challenges posed by emerging technologies, falling energy consumption and fundamental changes in the way customers use the distribution network. Tariffs remain a critical component of Energex's response to these challenges. Customer engagement on tariff strategy consistently highlights the need to have simple tariffs with clear pricing signals that customers can understand and to which customers can respond.

11.1 Tariff Structure Statement

In December 2014, the Distribution Network Pricing Arrangements final rule determination was announced by the AEMC.²⁰

As a result of this rule change, Energex will develop a Tariff Structure Statement (TSS) that will apply over the duration of the regulatory control period. Energex will submit for approval a draft TSS to the AER on 27 November 2015. The TSS will detail:

- tariff classes, policies and procedures for the assignment or reassignment of customers to tariff classes
- tariff structures, tariff charge elements and indicative price paths
- pricing methodology, including LRMC calculations and treatment of residual allocation.

In developing the TSS, Energex will need to demonstrate that its tariff strategy aligns with the new pricing principles set out in the Rules. Figure 11.1 illustrates the broad themes and underpinning pricing principles and their application at the implementation level.

²⁰ [AEMC, National Electricity Amendment \(Distribution Network Pricing Arrangements\) Rule 2014 No.9, 1 December 2014.](#)

Figure 11.1 Tariff reform themes and principles



As part of the development of a TSS, Energex will engage with customers and retailers in the development of tariff strategy. Energex has a dedicated customer engagement program to inform key decisions relating to tariff reform and pricing. This program aligns with the International Association of Public Participation best-practice engagement approach (the IAP2 Spectrum).

The initial TSS will be implemented from 1 July 2017 for a 3 year period.

11.2 ICC and CAC tariff strategy

11.2.1 Time of use demand for CACs

Energex's ICC and CAC customers are not currently exposed to a ToU demand charge, which would incentivise customers to reduce their demand for network services at times when the network is more likely to be heavily utilised. Energex will undertake engagement activities during 2015-16 to begin the development of ToU demand tariffs for customers in the CAC tariff class. It is expected that these tariffs will be implemented during 2017-18.

11.2.2 Capacity and Demand charges

From 1 July 2015, authorised capacity charges will be removed for customers allocated to tariffs in the CAC tariff class, as described in section 10.3.3. Authorised capacity charges do not provide a strong signal to customers to use the network more efficiently by shifting their demand outside peak periods. A move to demand charges would allow prices to be more reflective of network costs. Energex will engage on this issue with ICC customers commencing in 2015-16.

11.2.3 DPPC fixed charges for embedded generation customers

Embedded generation customers do not currently receive a DPPC fixed charge. Starting 2017-18, Energex will begin aligning these tariffs to the current charging structures for other site-specific customers. Engagement with these customers is expected to begin in 2015-16.

11.3 SAC tariff strategy

11.3.1 SAC demand based tariffs

Having experienced a change in tariff structure from demand being charged in kW to demand charged in kVA from 1 July 2015 (see section 10.3.4 for further details), Energex does not propose to introduce further changes to NTC8300 or NTC8100 in the 2017-20 TSS. Energex is of the view that SAC customers on these demand tariffs will need time to familiarise themselves with reactive power and the means to mitigate it before adding yet any further changes to their network tariffs. Energex considers that further tariff reform should be implemented in 2020 when the 2020-25 TSS comes into effect. Energex intends to engage with SAC customers on demand tariffs in 2015-16.

11.3.2 SAC residential and small business customers

Energex remains committed to moving towards demand based charging for residential and small business customers who are not currently charged on the basis of demand. This fundamental change will provide more cost reflective prices, which in turn encourages appropriate investment in emerging technologies and improves network utilisation. Energex is currently engaging with retailers and customers on the development of demand based tariffs. Energex proposes to introduce an initial opt-in demand based tariff in 2016-17 (in conjunction with Type 4 meters) for residential customers and an equivalent tariff for business customers in 2017-18.

11.3.3 Time of use volume tariffs

Conditional upon a successful initial offering of demand based network tariffs for residential and small business customers in 2016-17, and pending a review of the uptake and impact of these tariffs, Energex will investigate the grandfathering of volumetric time of use network tariffs. This includes network tariffs NTC8800 Business ToU and NTC8900 Residential ToU. Retention of these tariffs for hardship customers will also be investigated.

11.4 Pricing methodology

11.4.1 Smoothing transition between tariffs

As much as possible, Energex minimises the price differential for customers who sit on the boundary between energy based and demand based tariffs. This prevents bill shock to customers and allows smooth transitions between tariffs as consumption patterns change. Energex continues to take this transition into account in 2015-16 network prices.

11.4.2 Transition towards LRMC based demand charges

In 2015-16, Energex will begin to transition demand charge elements to pricing levels closer to their LRMC value. This transition is expected to occur over the duration of the 2015-20 regulatory control period. This change aligns with the objectives and principles set out in the new distribution pricing rules. During 2015-16, Energex will continue to engage with customers and stakeholders on an appropriate pace for this transition.

11.4.3 Review of cost allocation methodology

Energex has undertaken an extensive review of the DCOS cost allocation methodology and has identified opportunities to stabilise the shared network cost allocation methodology. These changes involve calculating the contribution of each tariff to network peak demand over the period prior to the widespread adoption of solar PV. The uptake of solar PV has resulted in a high degree of cross-subsidisation between tariffs that needs to be addressed. In order to keep prices stable, Energex proposes to transition towards this new methodology over the duration of the 2015-20 regulatory control period through a weighted mixture of the old and new methodology.

12 Alternative control services: Tariff classes

Services provided under the ACS framework are customer specific and/or customer requested services. These services may also have potential for provision on a competitive basis rather than by a single DNSP. ACS are akin to a 'user-pays' system. The whole cost of the service is paid by those customers who benefit from the service, rather than recovered from all customers.

ACS are either subject to a price cap (fee based services), whereby the price is set in accordance with specified service assumptions due to the standardised nature of the service, or a price on application (quoted services) where the service is of a nature and scope which cannot be known in advance.

12.1 ACS tariff classes

RULE REQUIREMENT

Clause 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.

PRELIMINARY DECISION REQUIREMENT

In accordance with clause 6.12.1(12) of the Rules, the form of control mechanism for alternative control services is the application of price caps.

For the 2015–20 regulatory control period, the AER has classified the following as ACS²¹:

- connection services, including:
 - pre-connection services
 - connection application services
 - pre-connection consultation services
 - connection services (excluding small customer connections)
 - post connection services (excluding operating and maintaining connection assets)
 - accreditation services.
- ancillary network services
- metering services
 - Type 6 metering services, and auxiliary metering services
- public lighting services.

²¹ [AER, Final Framework and Approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015, April 2014](#)

These services form the basis of tariff classes for ACS which are described in Table 12.1.

Table 12.1 – 2015-16 ACS tariff classes

Tariff Class	Activity
Connection services	<p>Pre-connection services</p> <p>Pre-connection services are those services that relate to assessing a connection application, making a connection offer and negotiating offer acceptance and additional support services provided by the DNSP (on request) during connection enquiry and connection application other than general connection enquiry services and connection application services.</p> <p>Generally relates to services which require a customised or site-specific response and/or are available contestably.</p> <p>Unless otherwise specified, services or activities undertaken under this service group relate to both small and large customers and real estate development connections.</p> <p>Connection services</p> <p>Connection services includes the design, construction, commissioning and energisation of connection assets for large customers and for real estate developments.</p> <p>Also includes the augmentation of the network to remove a constraint faced by an embedded generator. This does not include customers with micro-generation facilities that connect under a SAC tariff class. Energex considers that generators larger than 30 kVA but smaller than 1 MW should be treated as embedded generators for the purpose of removing network constraints.</p> <p>Include temporary connections for short term supply (e.g. blood bank vans, school fetes).</p> <p>Post-connection services</p> <p>Post-connection services are those services initiated by a customer which are specific to an existing connection point.</p> <p>Accreditation services</p> <p>Accreditation of alternative service providers and approval of their designs, works and materials.</p>
Ancillary network services	<p>Ancillary network services include services provided in relation to a Retailer of Last Resort (ROLR) event and works initiated by a customer, which are not covered by another service and are not required for the efficient management of the network, or to satisfy DNSP purposes or obligations.</p>
Metering services	<p>Type 6 Metering</p> <p>Metering services encompass the metering installation, provision, maintenance, reading and data services of Type 6 metering.</p> <p>Auxiliary Metering Services</p> <p>Includes work initiated by a customer which is specific to a metering point.</p>
Public lighting	<p>Public lighting services relate to the provision, construction and maintenance of public lighting assets owned by Energex (conveyance of electricity to street lights remains an SCS). Includes energy efficient retrofits and new public lighting technologies, including trials.</p>

12.2 Assignment of ACS customers to tariff classes

Prior to the provision of an ACS, a customer will be assigned to the relevant tariff class based on the type of ACS required. Similar to tariff class membership requirement for SCS, described in section 3.1.1, an ACS customer will not receive the service prior to being allocated to the appropriate tariff class. The process for assigning customers to the appropriate ACS tariff class is illustrated in Table 12.2.

Table 12.2 - Assignment of customers to ACS tariff classes

ACS Tariff Class	Description	ACS Service	ACS Tariff
Connection services	Services performed to: <ul style="list-style-type: none"> connect a person's home or other premises to the electricity distribution network get more electricity from the distribution network than is possible at the moment extend the network to reach a person's premises. 	Pre-connection	Connection application services
			Pre-connection consultation services
		Connection	Large customer connections (design and construction)
			Commissioning and energisation of large customer connections
			Real estate development connections (design, construction, commissioning and energisation)
			Removal of network constraints for embedded generators
			Review, inspection and auditing of design and works carried out by an alternative service provider prior to energisation
			Temporary connection (short term supply)
		Post connection (Connection Management Services)	Supply abolishment
			Move point of attachment
			Rearrangement
			Overhead service line replacement
			Auditing services
			Protection and power quality assessment
			Customer requested works to allow contractor to work close

ACS Tariff Class	Description	ACS Service	ACS Tariff
			Temporary disconnection and reconnection
			Supply enhancement
			Provision of connection services above minimum requirements
			Upgrade from overhead to underground service
			Customer consultation or appointments
			Rectification of illegal connections or damage
			De-energisation
			Re-energisation
			Reading provided for an active site
			Attending loss of supply (customer at fault)
Ancillary network services	Non-routine services provided to individual customers on an 'as needs' basis. Ancillary network services involve work on, or in relation to, parts of the distribution network.	Accreditation	Accreditation of service providers that meet competency criteria
			Approval of third party design, works and materials
		Ancillary network services	Services provided in relation to a retailer of last resort (ROLR) event
			Customer requested provision of electricity network data requiring customised investigation, analysis and technical input
			Bundling (conversion) of cables
			Provision of services to extend/augment the network

ACS Tariff Class	Description	ACS Service	ACS Tariff
			Customer requested appointments
			Attendance at customer's premises to perform a statutory right where access is prevented
			Rearrangement of non-connection network assets
			Assessment of parallel generator applications
			Customer requested disconnection and reconnection of supply, coverage of LV mains and / or switching to allow customer / contractor to work close to non-connection network assets
Metering services	Provision, installation and maintenance of Type 6 metering as well as non-routine auxiliary metering services provided on an 'as needs' basis	Type 6 metering	Provision, installation, maintenance, reading and data services
		Auxiliary metering services	New and upgraded meter installation
			Off-cycle meter reads
			Customer requested meter accuracy testing
			Customer requested meter inspection and investigation
			Meter reconfiguration
			Meter alteration – meter integrity verification
			Meter removal where not covered by the metering service charge
			Meter data services (non-standard)
			Provision, testing and maintenance of instrument transformers for metering purposes

ACS Tariff Class	Description	ACS Service	ACS Tariff
Public lighting	Activities of provision, construction and maintenance of public lighting assets, including emerging public lighting technology.	Provision, construction and maintenance of public lighting	<p>Non-contributed (Energex installed and maintained):</p> <ul style="list-style-type: none"> Major (high watt) Minor (low watt). <p>Contributed (Energex maintained):</p> <ul style="list-style-type: none"> Major (high watt) Minor (low watt).
		Other public lighting	Construction of new street light services (contributed)
			Provision of glare shield, vandal guards, luminaire replacement with aero screens
			Application assessment, design review and audit
			Alteration, repair, relocation, rearrangement or removal of existing street light assets
			Residual asset fee
		Emerging public lighting	New public lighting technologies including trials
			Energy efficient retrofit

13 Alternative control services: Proposed tariffs

13.1 ACS pricing framework and requirements

RULE REQUIREMENT

Clause 6.2.6 Basis of control mechanisms for direct control services

(b) For alternative control services, the control mechanism must have a basis stated in the distribution determination.

Clause 6.18.2 Pricing Proposals

(b) A pricing proposal must:

- (2) set out the proposed tariffs for each tariff class that is specified in the Distribution Network Service Provider's tariff structure statement for the relevant regulatory control period.
- (3) set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates.

Clause 6.18.5 Pricing Principles

(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.

PRELIMINARY DECISION REQUIREMENT

In accordance with clause 6.12.1(12) of the Rules, the form of control mechanism for alternative control services is the application of price caps.

13.1.1 Overview

Services under the ACS framework are provided on an individual fee-for-service basis to retailers and end-use customers. Energex will provide ACS services as a limited building block price cap, price cap or quoted price, depending on the service.

Price cap (or fee based) and quoted services are usually provided at the explicit request of third parties. These are defined as:

- Price cap services – Services relating to activities undertaken by Energex at the request of customers or their agents (e.g. retailers or contractors). The costs for these activities can be directly attributed to customers and service-specific prices can be charged.
- Quoted services – Services for which the nature and scope cannot be known in advance irrespective of whether it is requested by the customer or triggered by an external event.

As detailed in Energex's 2015-20 Regulatory Proposal there are two main control mechanisms relevant for ACS.

The first is a limited building block approach. This approach is applied to public lighting services (provision, installation and maintenance) and metering services (Type 6). This consists of:

- A limited building block approach in the first year of the 2015-20 regulatory control period.
- Prices for the subsequent years will be determined in accordance with the control mechanism formula and escalated from one year to the next based on changes in CPI and application of X and A factors (metering service charge).

The other control mechanism approved by the AER is a formula based form of control (cost build up approach) for price capped services and quoted services over the 2015-20 regulatory control period. This consists of:

- A schedule of price capped alternative control services and a schedule of rates for quoted services (illustrative configuration) for the first year of the 2015-20 regulatory control period. Service assumptions are established at the beginning of the regulatory control period and are included in the regulatory determination.
- Prices and rates for the subsequent years will be determined in accordance with the control mechanism formula and escalated from one year to the next based on changes in the CPI and application of X factors which reflect changes in cost escalators and on-costs.

13.1.2 Charging parameters

The formula outlined in Equation 13.1 has been designed in accordance with the AER's final F&A²² and ensures prices will be representative of the efficient costs of providing and delivering the services. Energex uses this formula to calculate the price for price capped and quoted services. This formula includes cost parameters for different services to determine the price.

Equation 13.1 - Formula for pricing price capped and quoted services

Price = Labour + Contractor Services + Materials + Capital Allowance + GST

where:

Labour is all labour costs directly incurred in the provision of the service, labour on-costs, fleet on-costs and overheads. The labour cost for each service is dependent on the skill level, travel time, number of hours and crew size required to perform the service.

Contractor services is all costs associated with the use of external labour in the provision of the service, including overheads and any direct costs incurred as part of performing the service (e.g. traffic control, road closure permits).

Materials is the cost of materials directly incurred in the provision of the service, material storage and logistics on-costs and overheads.

Capital allowance is a return on, and return of, capital for non-system assets used in the delivery of the service.

GST is Goods and Services Tax, where applicable.

²² [AER, Final Framework and Approach for Energex and Ergon Energy - Regulatory control period commencing 1 July 2015, April 2014](#)

13.1.3 Long run marginal costs

LPMC is taken into consideration when determining prices for ACS, as per clause 6.18.5(b)(1) of the Rules. However, given that there is only a single charge parameter for each service, prices have been set at average cost ensuring total costs are recovered for these services, as allowed for under clause 6.18.5(c) of the Rules.

13.1.4 Estimating avoidable and stand alone costs

The price build up for ACS services has been designed to ensure prices will represent the efficient costs of providing and delivering the service, and signal the economic costs of service provision by being subsidy-free.

Prices based on this formula will be cost-reflective, representing costs derived through the same allocation method as that used to determine costs for SCS, in accordance with the AER's approved Cost Allocation Method (CAM). The prices for each tariff class within ACS will be between the bounds of avoidable and stand alone costs due to the economies of scale in providing each service.

The avoidable cost for a particular service is equivalent to the direct labour, contractor cost and materials cost. Overhead costs and capital allowance will be incurred regardless of whether the service is provided. Consequently, the price calculated using the formula in Equation 13.1 (which includes an allowance for overhead costs and capital allowance) will be greater than the avoidable cost.

The stand alone cost is equal to the costs of serving each tariff class within ACS on a stand alone basis. For example, the stand alone cost would require the use of dedicated resources and assets. As these costs can be shared among tariff classes within SCS and ACS, the cost calculated for each individual service will be less than the stand alone cost.

13.2 Connection services

13.2.1 Overview

This section discusses connection services that have been classified as ACS. All connection services, excluding small customer connections, operating and maintaining connection assets and general enquiry services for pre-connection are classified as ACS. These services can be broken down into pre-connection, connection, post-connection services and accreditation. It should be noted that Energex considers that connection services associated with accreditation do not necessarily align with the identified service groups of pre-connection, connection and post-connection and therefore have recognised a separate grouping for connection accreditation services.

Table 13.1 outlines the proposed connection service categories and classifications. This section only focuses on those connection services that are proposed to be classified as ACS.

Table 13.1 - Classification for connection services

Connection Service Group	Connection Service Sub Group	AER Proposed Classification
Pre-connection Services	General connection enquiry services	Standard Control
	Connection application services	Alternative Control
	Pre-connection consultation services	Alternative Control
Connection Services	Small customer connections - design, construction, commissioning and energisation	Standard Control
	Large customer connections - design and construction	Alternative Control
	Commissioning and energisation of large customer connections*	Alternative Control
	Real estate development (sub-division) connections – design, construction, commissioning and energisation*	Alternative Control
	Removal of network constraints for embedded generators*	Alternative Control
	Review, inspection and auditing of design and works carried out by an alternative service provider prior to energisation	Alternative Control
	Temporary connections for short term supply	Alternative Control
Post Connection Services	Operate and maintain connection assets	Standard Control
	Connection management services (post connection)	Alternative Control
Accreditation/Certification	Accreditation of design consultants and alternative service providers and approval of materials*	Alternative Control
Notes:		
*Connection services reclassified from standard control to alternative control in the 2015-20 regulatory control period.		

It should be noted that large customer connections has been redefined to lower the threshold for embedded generators from 1 MVA to 30 kVA. Energex's Pricing Proposals for 2015-16 onwards will define large customer connections as those connections that fall within the tariff classes of ICC or CAC.

13.2.2 Proposed connection service charges

Price capped connection services

Prices for price capped connection services have been calculated using the formula in Equation 13.1 and forecast costs for labour/contractors, materials, on-costs (fleet and materials), overheads (general and corporate) and capital allowance. The pricing signals differentiate between time of day of the service request to be more cost reflective. To minimise costs, customer are able to choose to have them delivered during business hours and within standard timeframes.

Energex has established indicative prices in accordance with the control mechanism formula set out in the final F&A.²³ These prices reflect efficient and prudent costs in providing these connection services based on existing and prospective service obligations. The proposed price schedule for price capped services in 2015-16 is provided in Table 13.2.

Table 13.2 - 2015-16 prices for connection price capped services

Service Description	2015-16¹ (\$/service)
<i>Pre - connection services (connection application services)</i>	
Negotiation services involved in negotiating a connection agreement – simple	
Standard jobs for small customer connections and real estate developments (sub-divisions). Please note that if service is non-standard, a quoted price may apply.	1,516.62
Protection and power quality assessment prior to connection - simple	
Solar PV 30-150 kW	3,791.55
Application assessment, design review and audit real estate (sub-division) connection services - resubmission	
Design assessment and preparation of offer - Resubmission	162.44
<i>Pre - connection services (consultation services)</i>	
Site inspection in order to determine nature of connection	
Small or large customer connection	324.88
Provision of site-specific connection information and advice for small or large customer connections.	
Protection devices and settings, fault level, network information	649.77
<i>Connection services</i>	
Customer request a temporary connection for short term supply (includes metered and unmetered) – simple	
Customer requested temporary connection (short term) and recovery of the temporary builders supply (business hours) - no CT.	1,566.41
Customer requested temporary connection (short term) and recovery of the temporary builders supply (business hours) - CT metering. Includes additional crew.	2,668.84
Customer requested temporary connection (short term) and recovery of the temporary builders supply (after hours) - no CT.	2,200.40
Customer requested temporary connection (short term) and recovery of the temporary builders supply (after hours) - no CT. Work requires traffic control due to imposed rules from external authorities.	3,259.28
Customer requested temporary connection (short term) and recovery of the temporary builders supply (after hours) - CT metering. Includes additional crew.	3,773.63
Customer requested temporary connection (short term) and recovery of the temporary builders supply (after hours) - CT metering. Work requires traffic control due to imposed rules from external authorities and additional crew.	4,832.51

²³ [AER, Final Framework and Approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015, April 2014](#)

Service Description	2015-16¹ (\$/service)
Customer requested temporary connection (short term) and recovery of the temporary builders supply (any time) - no CT.	2,200.40
Customer requested temporary connection (short term) and recovery of the temporary builders supply (any time) - no CT. Work requires traffic control due to imposed rules from external authorities.	3,259.28
Customer requested temporary connection (short term) and recovery of the temporary builders supply (any time) - CT metering. Includes additional crew.	3,773.63
Customer requested temporary connection (short term) and recovery of the temporary builders supply (any time) - CT metering. Work requires traffic control due to imposed rules from external authorities and additional crew.	4,832.51
Temporary connection of unmetered equipment to an existing LV supply ² .	259.06
Post - connection services	
Supply abolishment - simple	
Request to de-energise an unmetered supply point.	397.77
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for single dwellings and the community / unit one of multi-unit residential complexes (business hours).	451.13
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for single dwellings and the community / unit one of multi-unit residential complexes (after hours).	524.51
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for single dwellings and the community / unit one of multi-unit residential complexes (after hours). Work requires traffic control due to imposed rules from external authorities.	1,583.39
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for single dwellings and the community / unit one of multi-unit residential complexes (any time).	524.51
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for single dwellings and the community / unit one of multi-unit residential complexes (any time). Work requires traffic control due to imposed rules from external authorities.	1,583.39
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for multi-unit residential complexes for all units after the community / unit one (business hours).	294.77
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for multi-unit residential complexes for all units after the community / unit one (after hours).	171.36
Retailer requests the service provider to abolish supply at a specific connection point (simple). To be used for multi-unit residential complexes for all units after the community / unit one (anytime).	171.36
Rearrange connection assets at customers request - simple (upgrade from overhead to underground where main connection point is in existence)	
Recovery of the overhead service and connection of the consumer mains to the pre-existing pillar for a customer requested conversion of existing overhead service to underground service (business hours).	242.54

Service Description	2015-16 ¹ (\$/service)
Recovery of the overhead service and connection of the consumer mains to the pre-existing pillar for a customer requested conversion of existing overhead service to underground service (after hours).	346.11
Recovery of the overhead service and connection of the consumer mains to the pre-existing pillar for a customer requested conversion of existing overhead service to underground service (any time).	346.11
Overhead service line replacement at customers request (no material change to load)	
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Single phase (business hours).	615.66
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Single phase (after hours).	798.67
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Single phase (after hours). Work requires traffic control due to imposed rules from external authorities.	1,857.55
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Single phase (any time).	798.67
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Single phase (any time). Work requires traffic control due to imposed rules from external authorities.	1,857.55
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Multi-phase (business hours).	864.57
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Multi-phase (after hours).	1,095.62
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Multi-phase (after hours). Work requires traffic control due to imposed rules from external authorities.	2,154.50
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Multi-phase (any time).	1,095.62
Customer requests their existing overhead service to be replaced or relocated, e.g.as a result of point of attachment relocation. No material change to load. Multi-phase (any time). Work requires traffic control due to imposed rules from external authorities.	2,154.50
Auditing services – auditing/re-inspection of connection assets after energisation to network - simple	
Auditing / re-inspection of connection assets after energisation - real estate development (sub-division). Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits): 0-6.	445.41
Auditing / re-inspection of connection assets after energisation - real estate development (sub-division). Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits): 7-30.	712.66

Service Description	2015-16 ¹ (\$/service)
Auditing / re-inspection of connection assets after energisation - real estate development (sub-division). Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits): 31-60.	852.65
Auditing / re-inspection of connection assets after energisation - real estate development (sub-division). Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits): 61+.	950.21
Temporary disconnections and reconnections (which may involve a line drop) - low voltage	
Temporary LV service Disconnection/reconnection - no dismantling (business hours).	347.88
Temporary LV service Disconnection/reconnection - physical dismantling (business hours).	568.37
Temporary LV service Disconnection/reconnection - no dismantling (after hours).	496.44
Temporary LV service Disconnection/reconnection - physical dismantling (after hours).	811.09
Temporary LV service Disconnection/reconnection - no dismantling (anytime).	496.44
Temporary LV service Disconnection/reconnection - physical dismantling (anytime).	811.09
Customer initiated supply enhancement	
Overhead service upgrade to multi-phase.	1,145.40
Overhead service upgrade to multi-phase (includes traffic control).	2,204.28
Underground service - upgrade to multi-phase.	3,051.20
Customer consultation or appointment	
A visit to the customer's premises to advise on electrical supply matters.	220.49
De-Energisation²	
Retailer requests de-energisation of the customer's premises where the de-energisation can be performed at the premises by a method other than main switch seal (i.e. at pillar box, pit or pole top) - no CT.	61.40
Retailer requests de-energisation of the customer's premises where the de-energisation can be performed at the premises by a method other than main switch seal (i.e. at pillar box, pit or pole top) - CT metering.	301.64
Retailer requests de-energisation of the customer's premises where the customer has not paid their electricity account and the de-energisation can be performed at the premises by a method other than main switch seal (i.e. at pillar box, pit or pole top) - no CT.	61.40
Retailer requests de-energisation of the customer's premises where the customer has not paid their electricity account and the de-energisation can be performed at the premises by a method other than main switch seal (i.e. at pillar box, pit or pole top) - CT metering.	305.86
Retailer requests de-energisation of the customer's premises carried out by way of main switch seal (non-payment).	20.12
Retailer requests a de-energisation of the customer's premises and it is carried out by way of Main Switch Seal.	20.12
Re-Energisation²	

Service Description	2015-16 ¹ (\$/service)
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, no CT (business hours).	46.90
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT metering (business hours).	46.90
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, no CT (after hours).	66.51
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT metering (after hours).	66.51
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, no CT (any time).	66.51
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT metering (any time).	66.51
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (business hours).	11.32
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (after hours).	75.67
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (any time).	68.56
Retailer requests re-energisation for the customer's premises following a main switch seal due to non-payment of their electricity account (no visual required) (business hours).	46.42
Retailer requests re-energisation for the customer's premises following a main switch seal due to non-payment of their electricity account (no visual required) (after hours).	75.67
Retailer requests re-energisation for the customer's premises following a main switch seal due to non-payment of their electricity account (no visual required) (any time).	68.56
Retailer requests that fieldwork be undertaken to obtain a new reading rather than using a deemed meter reading. May also be used for retrospective move-in requests.	9.57
Retrospective move in read required.	9.57
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (business hours).	107.76
Retailer requests a visual examination upon re-energisation of the customer's premises - CT metering (business hours).	276.34
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (after hours).	153.56
Retailer requests a visual examination upon re-energisation of the customer's premises - CT metering (after hours).	381.90
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (anytime).	153.20
Retailer requests a visual examination upon re-energisation of the customer's premises - CT metering (anytime).	417.46
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - no CT (business hours).	107.76

Service Description	2015-16¹ (\$/service)
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - no CT (after hours).	153.56
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - CT metering (after hours).	381.90
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - CT metering (business hours).	276.34
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - no CT (anytime).	153.20
Retailer requests a visual examination upon re-energisation of the customer's premises where the customer has not paid their electricity account. NMI de-energised > 30 days - CT metering (anytime).	417.46
Attending loss of supply (customer at fault)	
Energex attending LV customers trouble call and found fault in LV customers installation (includes tripped safety switch, internal fault, customers overload) business hours.	220.49
Energex attending LV customers trouble call and found fault in LV customers installation (includes tripped safety switch, internal fault, customers overload) anytime.	314.65
Energex attending LV customers trouble call and found fault in LV customers installation (includes tripped safety switch, internal fault, customers overload) after hours.	314.65
Accreditation / certification	
Accreditation of design consultants	
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide design services for real estate development (sub-division), rate 2 public lighting, LCC and distribution works that are reticulated with Energex network (design accreditation). New applicant has ISO9001 accreditation with no other Energex accreditations in place.	10,259.61
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide design services for real estate development (sub-division), rate 2 public lighting, LCC and distribution works that are reticulated with Energex network (design accreditation). New applicant is not ISO9001 accredited with no other Energex accreditations in place.	11,956.42
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide design services for real estate development (sub-division), rate 2 public lighting, LCC and distribution works that are reticulated with Energex network (design accreditation). Applicant currently holds accreditation to undertake design services for rate 2 public lighting (design accreditation). Applicant requesting additional Energex accreditations with or without ISO9001 accreditation (priced per additional accreditation).	7,010.77
Onsite management system evaluation (irrespective of prior accreditations). Applicant requests to obtain Energex accreditation to provide design services for real estate development (sub-division), rate 2 public lighting, LCC and distribution works that are reticulated with Energex network (design accreditation).	678.72

Service Description	2015-16 ¹ (\$/service)
Capability evaluation (irrespective of prior accreditations). Applicant requests to obtain Energex accreditation to provide design services for real estate development (sub-division), rate 2 public lighting, LCC and distribution works that are reticulated with Energex network (design Accreditation).	649.77
Accreditation of alternative service providers (construction accreditation)	
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide construction services for real estate development (sub-division) works that are reticulated with Energex network (construction accreditation). New applicant has ISO9001/AS4801/ISO14001 accreditation with no other Energex accreditations in place.	5,003.56
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide construction services for real estate development (sub-division) works that are reticulated with Energex network (construction accreditation). New applicant is not ISO9001/AS4801/ISO14001 accredited with no other Energex accreditations in place.	9,386.30
Desktop management system evaluation - Applicant requests to obtain Energex accreditation to provide construction services for real estate development (sub-division) works that are reticulated with Energex network (construction accreditation). Applicant requesting additional Energex accreditations with or without ISO9001/AS4801/ISO14001 accreditation (price per additional accreditation).	5,003.56
Onsite management system evaluation (irrespective of prior accreditations). Applicant requests to obtain Energex accreditation to provide construction services for real estate development (sub-division) works that are reticulated with Energex network (construction accreditation).	1,357.45
Capability evaluation irrespective of prior accreditations). Applicant requests to obtain Energex accreditation to provide construction services for real estate development (sub-division) works that are reticulated with Energex network (construction accreditation).	1,328.49
Management system re-evaluation	
QA process: This is conducted on request from existing service providers and design consultants with the intent to improve their management system score.	6,787.23
Shared assets authority	
High Level quality assessment (QA) and capability process: This is conducted to ensure the applicant has adequate safety and QA documentation to meet legislative and Energex WCS requirements. Also involves a capability assessment of the applicant's ability to conduct the work.	5,090.43
Notes: 1. Prices are GST exclusive. Prices are inclusive of overheads and on-costs. 2. Prices for these services are subject to Schedule 8 of the Queensland Electricity Regulation 2006. As Schedule 8 prices for 2015-16 are yet to be published, the rates in this table represent the proposed Energex costs using the ACS formula. Schedule 8 prices will be included in Energex's 2015-16 Tariff Schedule which will be published on the Energex website as soon as practicable.	

13.3 Large customer connections

13.3.1 Overview

From 1 July 2010, the design and construction of LCC for new or upgraded connections (requested by a customer) is an ACS quoted service.

It should be noted that large customer connections, for the 2015-20 regulatory control period have been redefined to lower the threshold for embedded generators from 1 MVA to 30 kVA.

Energex's Pricing Proposals from 2015-16 onwards will define large customer connections as those connections that fall within the tariff classes of ICC or CAC.

As part of the ACS service classification, customers may choose either Energex or an accredited service provider to undertake the design and construction of the connection assets (to Energex's technical standards). The operation and maintenance of all connection assets, including large connections, is an SCS.

13.3.2 Framework

The framework for new and existing LCC is provided in Figure 13.1 and Table 13.3.

The design and construction of LCC will be classified as one of the following:

- ACS – All new connections or upgrades to existing connections, which are paid for by the customer and gifted to Energex. This may include an upfront payment for the design and construction of the connection assets, calculated in accordance with Equation 13.1 (section 13.1.2). These assets will form part of the Contributed Asset Base (CAB). Items in the CAB will have no return on capital or regulatory depreciation cost allocated to them. However, there will be an allocation for O&M costs recovered through DUoS as per the tariff revenue allocation process detailed in Appendix 3 - Revenue allocation process.
- SCS – LCC assets, existing prior to 1 July 2010, which are owned and maintained by Energex, or were built as part of an Energex driven asset replacement. These services will continue to form part of the Regulatory Asset Base (RAB). These connection assets have costs allocated to them for return on capital, regulatory depreciation and O&M as per the tariff revenue allocation process detailed in Appendix 3 - Revenue allocation process.
- Unregulated services – Connection assets that are funded, owned and operated by the customer. These services will attract no specific connection asset charges.

Figure 13.1 - Service classification for LCC

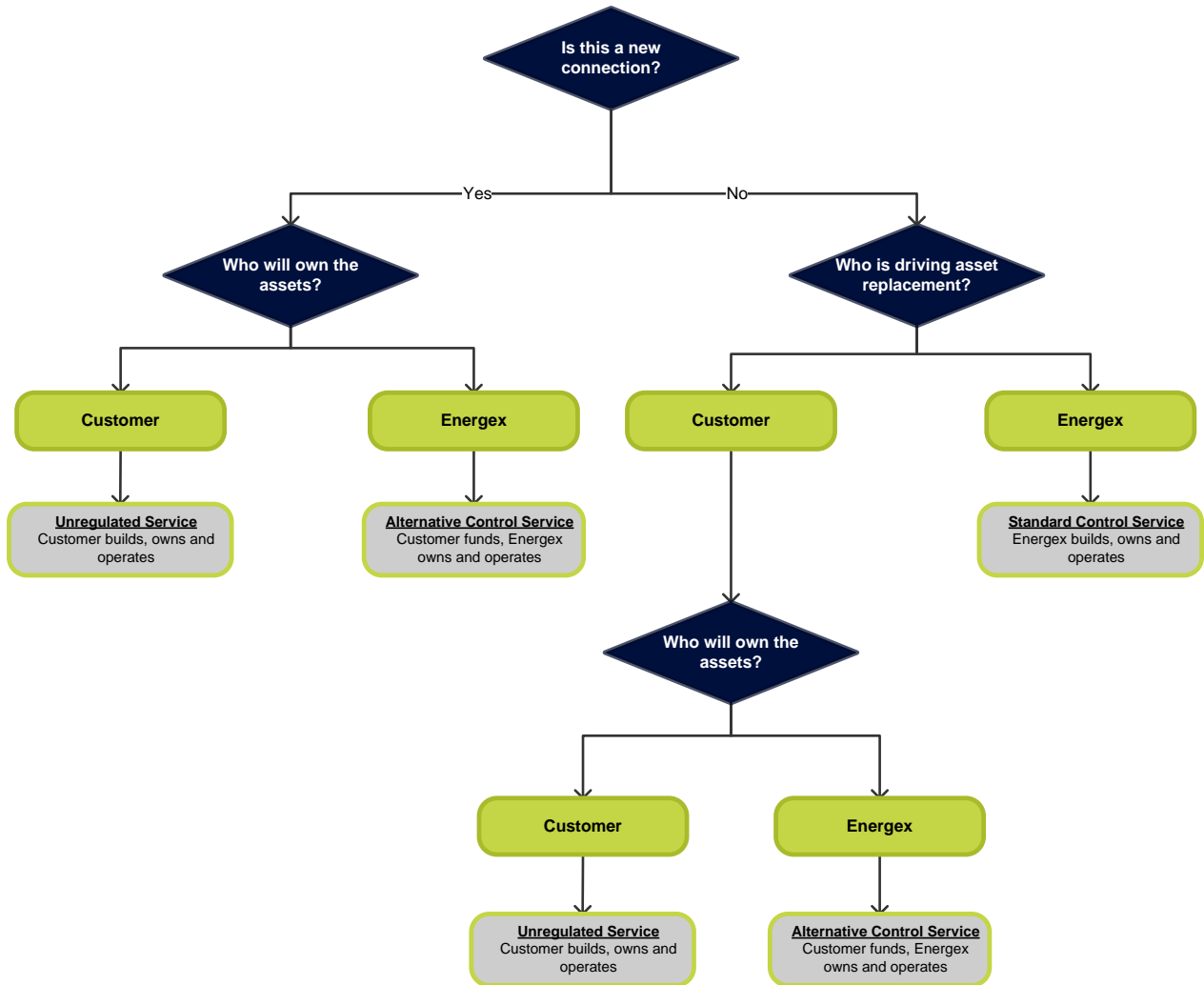


Table 13.3 - LCC pricing framework

Initial connection date	Description	Ownership ¹	Asset classification	Service classification	Asset base	Upfront customer payment (quoted price, relating to design and construction costs)	Tariff charging parameter (site-specific fixed charge)	
							Recovery of depreciation and return on capital (through DUoS)	Recovery of operating expenditure (through DUoS)
Before 1 July 2010 (or part of transitional arrangement) Asset constructed under previous framework	Existing connection	Energex	Non-contributed	SCS	RAB	N/A	✓	✓
	Upgrade to existing asset - Energex driven ²	Energex	Non-contributed	SCS	RAB	N/A	✓	✓
	Upgrade to existing asset - customer request	Energex (gifted)	Contributed	ACS	CAB	✓	N/A	✓
After 1 July 2010 Asset constructed under new framework	New connection	Energex (gifted)	Contributed	ACS	CAB	✓	N/A	✓
	Upgrade to existing asset - customer request	Energex (gifted)	Contributed	ACS	CAB	✓	N/A	✓
	Upgrade to existing asset - Energex driven ²	Energex	Non-contributed	SCS	RAB	N/A	✓	✓
Asset constructed under either framework	Replacement - during warranty period for gifted assets	Energex (gifted)	Contributed	N/A	N/A	N/A (covered under warranty)	N/A	✓
	Replacement - outside manufacturer's warranty period	Energex (gifted)	Contributed	ACS	CAB	✓	N/A	✓
		Energex	Non-contributed	SCS	RAB	N/A	✓	✓
	Any service	Customer	N/A	Unregulated	N/A	No specific connection asset charges		

Notes:

1. If the customer chooses to retain ownership of the asset, the service is unregulated and there are no specific connection asset charges.
2. An Energex driven upgrade to a customer's connection assets could occur, when for network reasons, the connection arrangement needs to be altered.

13.3.3 Charging parameters

In accordance with clause 6.18.2(b)(3), Energex will calculate the price for the design and construction of LCC assets in accordance with the formula in Equation 13.1.

13.3.4 Proposed LCC charges

Specific prices for LCC quoted services cannot be provided due to the variability in the scope, design and construction of LCC assets. The price for the illustrative service configuration for LCC is shown in Table 13.3.

13.4 Ancillary network services

13.4.1 Overview

The AER has proposed to create a group of services called ancillary network services to capture non-routine services provided to customers on an 'as needs' basis. As such the AER has proposed to classify this small group of services, including services provided in a retailer of last resort event and other recoverable works, as ACS.²⁴

'Other recoverable works' is a relatively broad group of services, detailed in Table 13.4, which do not fall into any other ACS group and are not part of the standard process of establishing or maintaining electricity supply.

Table 13.4 sets out Energex's proposed classification of ancillary network services. Consistent with the approach adopted for other ACS, services have been determined to be price cap or quoted depending on whether the scope of work is pre-defined or subject to variability.

Table 13.4 - Proposed classification of ancillary network services

Service Group	Price Cap/ Quoted Service
Services provided in relation to the retailer of last resort	Quoted
Other recoverable works:	
Customer requests provision of electricity network data requiring customised investigation, analysis or technical input	Quoted
Bundling (conversion) of cables carried out at the request of another party	Quoted
Provision of services to extend /augment the network, to make supply available for the connection of approved unmetered equipment	Quoted
Customer requested appointments	Price cap
Rearrangement of network assets (other than connection assets)	Quoted
Customer requested disconnection and reconnection of supply, coverage of LV mains and/or switching to allow customers/contractors to work close	Quoted

²⁴ [AER, Final Framework and Approach for Energex and Ergon Energy - Regulatory control period commencing 1 July 2015, April 2014](#)

Service Group	Price Cap/ Quoted Service
Assessment of parallel generator applications	Quoted
Attendance at customer's premises to perform a statutory right where access is prevented	Price cap

In relation to the 'provision of services to extend/augment the network, to make supply available for the connection of approved unmetered equipment', Energex proposes that this relates to 'non-standard unmetered supply services' that require planning, design and construction to facilitate the connection of an unmetered supply (e.g. an extension to the network to provide a point of supply).

In relation to the service 'attendance at customer's premises to perform a statutory right where access is prevented', Energex intends to rely on this service to charge for situations where Energex attends the customer's premises to perform a service / statutory right (e.g. disconnection or read meter) but access is prevented (i.e. wasted attendance). The AER stated in the final F&A, that it considers this service (i.e. attendance at customer's premises to perform a statutory right where access is prevented) provides DNSPs with the ability to charge for a wasted attendance.²⁵

The AER also states that 'notwithstanding our inclusion of this service in our classifications table, we consider wasted attendance to be an element of a service provided by a DNSP. That is, it is not a service in itself'.²⁶ For clarity Energex does not consider a wasted attendance to be a service. However, Energex does consider it appropriate to charge in instances where access is prevented but the cost for the wasted attendance incurred.

13.4.2 Charging parameters

In accordance with clause 6.18.2(b)(3), Energex will calculate the price for ancillary network services in accordance with the formula in Equation 13.1.

13.4.3 Proposed ancillary network service charges

Price capped ancillary network services

Energex has developed prices which reflect efficient and prudent costs in providing these connection services based on existing and prospective service obligations. The price schedule for price capped services in 2015-16 is provided in Table 13.5, as approved by the AER in the Preliminary Decision.

²⁵ [AER, Final Framework and Approach for Energex and Ergon Energy, Regulatory Control Period commencing 1 July 2015, April 2014](#).

²⁶ Refer footnote above

Table 13.5 - Price caps for ancillary network services

Service Description	2015-16 ^{1,2} (\$/service)
Other recoverable works	
Customer requested appointments	
Customer requested appointments.	220.49
Attendance at customers premises to perform a statutory right where access is prevented	
Energex attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (business hours).	88.20
Energex attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (after hours).	125.86
Energex attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (anytime).	125.86
Energex (non-technical) attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (business hours).	10.52
Energex (non-technical) attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (after hours).	75.38
Energex (non-technical) attends a site at the customer's request and is unable to perform job due to customer's fault ¹ (anytime).	75.38
Notes:	
1. Includes faults caused by customer's electrical contractor.	
2. Prices are GST exclusive.	
3. Prices are inclusive of overheads and on-costs.	

13.5 Type 6 metering services

13.5.1 Overview

From the 2015-20 regulatory control period, Type 6 metering installations and auxiliary metering services will be classified as ACS.²⁷ Type 6 metering installations incorporate the provision, installation, ongoing maintenance, meter reading and meter data services for Type 6 metering. A metering installation is defined by the Rules as the assembly of components required to measure, process and make available for collection the energy data for a connection point, including:

- measurement element(s) (meters) and processes (if any)
- current and voltage instrument transformers (if required)
- recording and display equipment
- communications interface (if required).

²⁷ Type 5 meters are not permitted in Queensland.

Auxiliary metering services are customer requested metering services and are provided to individual customers on a non-routine basis. The scope of auxiliary metering services currently involves a number of services including meter alterations, Type 6 non-standard metering services, off-cycle meter reads, meter tests (customer initiated), meter inspections and meter reconfigurations.

Table 13.6 summarises the proposed classification of metering services for the 2015-20 regulatory control period. This section addresses metering services that are classified as ACS only.

Table 13.6 - Classification of Energex metering services

Metering Type	Description	Classification
Metering Types 1-4	Provision, installation, maintenance, meter reading and meter data services for Type 1-4 meters	Unregulated
Metering Type 6	Provision, installation, maintenance, meter reading and meter data services for Type 6 meters.	Alternative Control Service
Metering Type 7	Unmetered connections where usage is estimated (includes public lighting and traffic lights).	Standard Control Service
Auxiliary Metering Services	Range of customer requested metering services which are provided to individual customers on a non-routine basis.	Alternative Control Service
Note: Type 5 meters are not permitted in Queensland.		

13.5.2 Type 6 meters and auxiliary metering services

Table 13.7 summarises the control mechanism and charging arrangements for Type 6 and auxiliary metering services as per the AER's Preliminary Decision.

Table 13.7 - Alternative control metering services for 2015-20 regulatory control period

Metering service	Description	Type 6/ Auxiliary Service	Basis of Control	Proposed Charging Arrangements
Meter provision	Meter selection, meter procurement, meter programming, meter testing on delivery.	Type 6	Building block	Metering services charge
Meter installation	Initial installation of meter at customer's premises.	Auxiliary	Cost build up approach	Price cap
	Install additional metering.	Auxiliary	Cost build up approach	Price cap
	Replacement of meter at customer's premises - Energex initiated.	Type 6	Building block	Metering services charge
	Customer requested meter exchange.	Auxiliary	Cost build up approach	Price cap
Meter maintenance	Customer requested meter test.	Auxiliary	Cost build up approach	Price cap

Metering service	Description	Type 6/ Auxiliary Service	Basis of Control	Proposed Charging Arrangements
	Customer requested meter inspection and investigation.	Auxiliary	Cost build up approach	Price cap
	Customer requested reconfiguration of meters (e.g. tariff change).	Auxiliary	Cost build up approach	Price cap
	Meter alteration-Meter integrity verification i.e. as a result of a meter alteration (includes meter reseal).	Auxiliary	Cost build up approach	Price cap
	Replacement or removal of a Type 6 meter instigated by a customer switching to a non-Type 6 meter that is not covered by any other fee.	Auxiliary	Cost build up approach	Quoted
	Removal of meter/s from customer's premises.	Type 6	Building block	Metering services charge
	Meter maintenance (includes network initiated meter inspection and meter tamper).	Type 6	Building block	Metering services charge
	Meter sample testing and replacing per Metering Asset Management Plan.	Type 6	Building block	Metering services charge
	Monthly and quarterly cycle meter reading. Includes Energex audit of third party provider.	Type 6	Building block	Metering services charge
Meter reading	Final read.	Auxiliary	Cost build up approach	Price cap
	Check read.	Auxiliary	Cost build up approach	Price cap
	Transfer read.	Auxiliary	Cost build up approach	Price cap
	Estimated read.	Auxiliary	Cost build up approach	Price cap
	Processing data (validations, substitutions, forward estimates).	Type 6	Building block	Metering services charge
Meter data services	Storing data.	Type 6	Building block	Metering services charge
	Delivering data.	Type 6	Building block	Metering services charge
	Non-standard data services (Type 6-7).	Auxiliary	Cost build up approach	Quoted
Other metering services	Stranded asset value of metering asset.	Type 6	Cost build up approach	Metering services charge
	Instrument transformers.	Auxiliary	Cost build up approach	Price cap
<p>Note:</p> <p>Services included in the building block approach are assumed to be performed during business hours, any request for after-hours service may incur an additional fee payable by the customer.</p>				

13.5.3 Type 6 metering services charge

Energex's revenue requirement for Type 6 metering services charge has been determined based on limited building block components consistent with the approach set out by the AER in the Preliminary Decision.

The recovery of revenue requirement from existing and new Type 6 metering customers is dependent on:

- the number of applicable tariffs which approximates the number of meters/complexity of the metering installation
- the extent to which the customer contributed to the MAB
- whether the customer's metering connection existed before 1 July 2015
- whether the customer has churned to an alternative meter service provider.

The AER's Preliminary Decision provides that existing Type 6 metering services (before 1 July 2015) will attract an annual charge comprising of the following components:

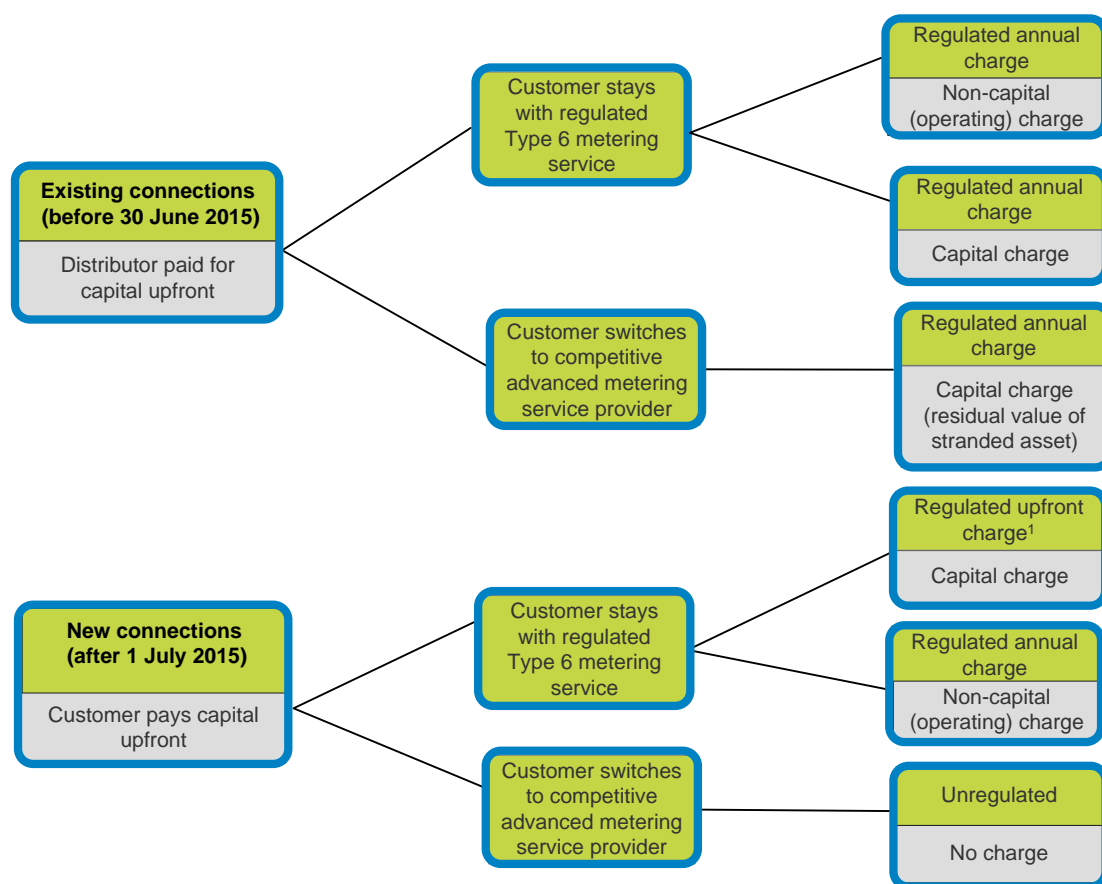
- Capital component – MAB recovery
- Non-capital component – Operating expenditure and tax.

The capital component applies to all existing Type 6 meter connections before 1 July 2015 regardless of whether customers elect to churn to an alternative meter provider or upgrades. Churning customers will continue to pay the capital component on an on-going basis to recover the residual value of the stranded assets.

Non-capital charge comprises of ongoing Energex initiated meter maintenance, cyclic meter reading and data storage and provision. The non-capital component applies to both existing and new/additional Type 6 meter connections. To clarify, the non-capital component will not apply to churning metering customers.

Figure 13.2 illustrates how the two regulated annual charge components relate to different metering customers.

Figure 13.2 Applicable regulated metering charges



Note:

1. The implementation of the upfront metering charges is subject to ongoing discussions between Energex and the AER to be agreed before 1 July 2015.

The metering service charge is applied per SAC non-demand tariff with tariffs being developed with reference to primary and secondary meter services. Secondary services may include services such as off-peak hot water or solar PV metering. Those customers with multiple tariffs will face relatively higher metering services charges reflecting the number of meters and/or complexity of metering installation. This approach ensures that customers who have more than one metering service will pay more to reflect the additional services being provided.

The price per tariff is based on the revenue proportion assigned to and the forecast volume of Type 6 meters for each tariff group. These prices reflect efficient and prudent costs in providing these Type 6 metering services based on existing and prospective service obligations. Charges have been developed to promote the objectives of administrative simplicity and cost reflectivity. Table 13.8 displays the daily metering services charge and cost per year by tariff group for 2015-16.

Table 13.8 - 2015-16 prices for Type 6 metering service charge

Tariff Class	Cost	2015-16 (Cents/day)^{1,2}
Primary	Non-capital	2.96
	Capital	6.71
Load Control	Non-Capital	0.89
	Capital	2.01
Solar PV	Non-Capital	2.07
	Capital	4.70
Notes: 1. Prices are GST exclusive. 2. Prices are inclusive of overheads and on-costs.		

Price capped auxiliary metering services

In addition to the ongoing metering service charge, Energex will continue to perform one off metering services at the request of customers, including meter installations, metering alterations, special meter reads, meter tests and instrument transformer tests. Energex is proposing a cost build-up approach, based on a number of service assumptions, to determine the price cap to apply to the majority of auxiliary metering services.

Prices for price capped auxiliary metering services have been calculated using the formula in Equation 13.1 and forecast costs for labour/contractors, materials, on-costs (fleet and materials), overheads (general and corporate) and capital allowance. The pricing signals differentiate between time of day of the service request to be more cost reflective. To minimise costs, customer are able to choose to have them delivered during business hours and within standard timeframes.

The proposed price schedule for price capped services in 2015-16 is provided in Table 13.9. These prices reflect efficient and prudent costs in providing these auxiliary metering services based on existing and prospective service obligations.

Energex is cognisant of the timing and impact of upfront metering charges for customers and this matter is under active consideration.²⁸

²⁸ It can be noted that the implementation of the upfront metering charges is subject to ongoing discussions between Energex and the AER to be agreed before 1 July 2015.

Table 13.9 - Price caps for auxiliary metering Services

Service Description	2015/16 (\$/service)^{1,2}
Meter installation	
Upfront capital charge	
Meter – DC 1 Element Single Phase	306.11
Meter – DC 2 Element Single Phase	399.03
Meter – DC Polyphase	597.40
Meter – CT Polyphase	1684.77
After hours provision of services (incremental costs only- base cost included in metering service charge)	
After hours exchange of meter – CT metering (after hours - incremental costs only - base cost included in MSC)	344.52
After hours exchange of meter – no CT (after hours - incremental costs only - base cost included in MSC)	72.42
After hours exchange of meter – no CT (after hours - incremental costs only - base cost included in MSC)	51.30
After hours installation of additional metering - CT metering (after hours - incremental costs only - base cost included in MSC)	344.52
After hours installation of additional metering - PV CT metering (after hours - incremental costs only - base cost included in MSC)	183.27
After hours installation of additional metering - single phase metering (after hours - incremental costs only - base cost included in MSC)	72.42
After hours installation of additional metering – multi-phase metering (after hours - incremental costs only - base cost included in MSC)	117.27
After hours installation of additional metering - PV single phase metering (after hours - incremental costs only - base cost included in MSC)	61.53
After hours installation of additional metering - PV multiphase metering (after hours - incremental costs only - base cost included in MSC)	76.34
After hours removal of meter/s from customer's premises	
After hours removal of meter - no CT (after hours - incremental costs only - base cost included in MSC)	52.05
After hours removal of meter - CT metering (after hours - incremental costs only - base cost included in MSC)	166.00
After hours provision of initial meter installation	
After hours provision of initial meter installation - CT metering - overhead connection	330.97
After hours provision of initial meter installation - CT metering - p/pole connection	378.61
After hours provision of initial meter installation - CT metering - underground connection	318.33
After hours provision of initial meter installation - single phase metering - overhead fox connection	131.67
After hours provision of initial meter installation - single phase metering - overhead connection	99.17

Service Description	2015/16 (\$/service)^{1,2}
After hours provision of initial meter installation - single phase metering - underground connection	75.37
After hours provision of initial meter installation - multi-phase metering - overhead fox connection	166.61
After hours provision of initial meter installation - multi-phase metering - overhead connection	125.38
After hours provision of initial meter installation – multi-phase metering - underground connection	97.79
Customer requested meter test (physically test meter)	
Testing for type 5 & 6 meters - customer requested meter accuracy testing - no CT	365.40
Testing for type 5 & 6 meters - customer requested meter accuracy testing - CT metering	761.91
Customer requested meter inspection & investigation (no physical testing of meter)	
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - no CT (business hours)	89.74
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - CT metering (business hours)	333.57
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - no CT (after hours)	161.91
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - no CT (anytime)	161.91
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - CT metering (after hours)	476.02
Inspection required to check reported or suspected fault and no fault in meter is found. (no physical meter test) - CT metering (anytime)	476.02
Customer requested reconfiguration of meters³	
A request to make a change from one tariff to another tariff (controlled load) - no CT	91.53
A request to make a change from residential flat (NTC 8400) to residential ToU (NTC 8900) - no CT	139.64
A request to make a change from one tariff to another tariff (controlled load) - CT metering	421.38
A request to make a change from residential flat (NTC 8400) to residential ToU (NTC 8900) - CT metering	465.47
A request to make a change from one tariff to another tariff - no CT (business hours)	91.53
A request to make a change from residential ToU (NTC 8900) to residential flat (NTC 8400)	91.53
A request to make a change from one tariff to another tariff - CT metering (business hours)	421.38

Service Description	2015/16 (\$/service) ^{1,2}
Change timeswitch - no CT	122.49
Change timeswitch - CT metering.	387.08
A request to make a change from one tariff to another tariff - no CT (after hours)	108.18
A request to make a change from one tariff to another tariff - CT metering (after hours)	601.32
A request to make a change from one tariff to another tariff - no CT (anytime)	108.18
A request to make a change from one tariff to another tariff - CT metering (anytime)	601.32
Meter alteration – meter integrity verification	
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - no CT (business hours)	128.00
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - CT metering (business hours)	793.15
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - no CT (after hours)	183.04
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - CT metering (after hours)	1,131.87
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - no CT (anytime)	183.04
Meter alteration – meter is being relocated or meter wiring altered and requires DNSP to visit site to verify the integrity of the metering equipment - CT metering (anytime)	1,131.87
Meter reading	
Check read	
Customer requests a check read on the meter due to reported error in the meter reading. This is only used to check the accuracy of the meter reading.	7.64
Final read	
Retailer requires a reading for preparing a final bill for customer.	7.64
Transfer read	
Customer requests a transfer read, as a result of transferring to a different retailer during a billing period.	7.64
Estimated read	
Estimated read	7.72
Meter data services	
Type 5-7 non-standard metering services	
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (business hours) First unit	127.90
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (business hours) Additional units	64.20

Service Description	2015/16 (\$/service) ^{1,2}
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (after hours) First unit	365.02
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (after hours) Additional units	183.23
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (anytime) First unit	365.02
A request to conduct a site review of the state of the customer's metering installation(s) (no physical meter test), i.e. multiple premises. Includes provision of meter data above the minimum requirements and meter inspection to check a reported or suspected fault. Does not include provision of any hardware (anytime) Additional units	183.23
Other metering services	
Instrument transformers	
Provision, installation, testing and maintenance of instrument transformers for metering purposes	949.66
Testing and maintenance of instrument transformers for metering purposes	173.94
Notes:	
1. Prices are GST Exclusive	
2. Prices are inclusive of overheads and on-costs	
3. If a new meter installation is required, a meter installation charge will apply.	

13.6 Public lighting

13.6.1 Overview

The provision, construction and maintenance of public lighting assets, as well as emerging public lighting technology and other public lighting services, are classified as a direct control service and further as an ACS under a price cap form of control. The conveyance of electricity to public lights will continue to be classified as a SCS. The ACS element of public lighting services is addressed in this section.

Table 13.10 Energex's proposed control mechanisms for public lighting

Public lighting service	Description	Basis of control	Proposed charging arrangements
Provision, construction and maintenance of public lighting	Non-contributed (EEO): <ul style="list-style-type: none"> • Major (high watt) • Minor (low watt) Contributed (GOO): <ul style="list-style-type: none"> • Major (high watt) • Minor (low watt) 	Building Block	Street light daily fixed fee
Other public lighting	Construction of new street light services (contributed)	Cost build up approach	Quoted
	Provision of glare shield, vandal guards, luminaire replacement with aero screens	Cost build up approach	Price cap / Quoted
	Application assessment, design review and audit	Cost build up approach	Price cap / Quoted
	Alteration, repair, relocation, rearrangement or removal of existing street light assets	Cost build up approach	Quoted
	Residual asset fee	Cost build up approach	Quoted
Emerging public lighting	New public lighting technologies including trials	Cost build up approach	Quoted
	Energy efficient retrofit	Cost build up approach	Quoted

In the 2015–20 regulatory control period, Energex will continue to provide for non-contributed and contributed street lighting services.

In the current regulatory control period, Energex classified public lighting services as follows:

- Non-Contributed (luminaires owned and operated by Energex (EEO))²⁹ - Since 1 July 2010, this service applies where Energex has constructed standard public lighting assets and owns and maintains the asset. In this situation, the customer pays an ongoing charge for the provision (capital), installation and standard level of maintenance.
- Contributed (luminaries gifted by councils and operated by Energex (GOO))³⁰ - This service applies where a customer installs the public lighting assets and gifts the assets to Energex to own and maintain the asset. The customer is charged for the

²⁹ Terminology used by the AER in its Preliminary Decision.

³⁰ Terminology used by the AER in its Preliminary Decision

maintenance of the asset only. Where maintaining standard public lighting is uneconomical (eg due to location) an incremental cost will be charged as an ACS.

- Pre-2010 Contributed - This current distribution determination provides that contributed public lighting assets should continue to be recovered as standard control services. This aligns with the historical capital contribution treatment in Queensland, whereby contributed public lighting assets were previously incorporated in Energex's RAB with a corresponding (negative) revenue adjustment. However, the full return on capital and depreciation for these assets have yet to be earned.
- Other - This service applies to the provision, installation and maintenance of public lighting not owned or maintained by Energex.

13.6.2 Framework

The approach for the treatment of public lighting assets, contributed and non-contributed, other and emerging public lighting services satisfies the requirements of the Rules and delivers network charges which directly correlate with the level of service provided.

Energex proposes that the basis of the control mechanism for:

- Standard non-contributed and contributed public lighting services is a limited building block approach to determine the efficient costs of providing both non-contributed and contributed public lighting services under the price cap control mechanism for the regulatory control period. Refer to section 13.1 for further information.
- Other (non-standard) and emerging public lighting services are a cost build up approach (for both price cap and quoted service).

Emerging public lighting technology and other public lighting services, which have a predefined scope of work, will be subject to a price cap. Where the scope of work varies considerably, the work will be subject to a cost build-up price.

Where the provision of a standard street light becomes uneconomical (i.e. due to its location) then the incremental cost will be charged as a quoted service. Non-standard street lights will be available as a fully contributed service. Charges associated with these services will need to be paid upfront by the customer.

In the instances where work is required outside of business hours due to maintenance access restrictions or customer requirements, these incremental services will be provided as quoted services.

13.6.3 Charging parameters

Street light contributed and non-contributed public lighting services

Energex's revenue requirements for street lighting services have been determined based on the revenue building block components consistent with the approach used for SCS. Street

lights are allocated into two categories, street light major and street light minor, according to luminaire type and size (as defined in the glossary), and to non-contributed and contributed based on the funding arrangement.

Energex developed prices for the first year of the regulatory control period using a methodology that applies a revenue allocation based on the relative installation costs for major and minor street lights and the applicable asset funding arrangement (non-contributed and contributed).

Apportioning capital costs

A large proportion of the revenue requirement must be recovered from customers of non-contributed public lighting assets for the return on and of capital, and the tax allowance. This revenue is apportioned to major and minor public lighting services based on the relative installation costs for a typical public light configuration for the relevant locality. The relevant proportion is derived from replacement costs for a sample of commonly used public light configurations of luminaire, pole type and outreach bracket, weighted by the forecast number of public lights. The rates to be applied for forthcoming regulatory control period are 45 per cent and 55 per cent for the major and minor services respectively. These have been estimated based on the relative installation costs for 2015-16.

Apportioning operating costs

The revenue requirement for the recovery of forecast opex is apportioned to:

- major and minor public lighting services - Based on the same proportions as used for the connection charge
- non-contributed and contributed services - Based on the proportion of forecast public lights under the respective funding arrangements.

In determining the operating charge for 2015-16, the following proportions in Table 13.11 have been applied.

Table 13.11 - Revenue proportions for the first year prices

Public lighting service	Revenue Proportion	Tariff	Revenue Proportion
Major	45.3%	Non-contributed (EOO)	43.3%
		Contributed (GOO)	56.7%
Minor	54.7%	Non-contributed (EOO)	47.0%
		Contributed (GOO)	53.0%

This methodology for calculating the target revenue for the respective charges is considered to provide a balance between the pricing objectives of cost reflectivity, simplicity and efficiency in administrative costs.

The formula to calculate each of the public lighting tariffs is outlined below:

$$\frac{\left(\frac{\text{Annual target revenue for public lighting tariff}}{\text{Number of luminaires for public lighting tariff}} \right)}{\text{Days in the year}}$$

Table 13.12 below provides the price schedule for the provision, construction and maintenance of street lights for 2015-16. The prices are based on the methodology approved in the AER 2015-20 Preliminary Decision and charges are tailored to enable the customer to be charged according to the level of service requested. The prices reflect standardised lights and no restriction on access for operation, maintenance and repair. In the case of restricted access, an additional charge may apply.

Table 13.12 - 2015-16 prices for street lighting services

Street light service ²	Price ¹ (\$/luminaire/day)
Major non-contributed (EOO)	0.78
Major contributed (GOO)	0.27
Minor non-contributed (EOO)	0.36
Minor contributed (GOO)	0.13
Notes 1. All prices exclude GST. 2. Definitions for street light major and street light minor are included in the glossary.	

Price capped and other emerging public lighting services

Energex will continue to perform one off public lighting services at the request of customers, including provision of glare shield, vandal guards, luminaire replacement with aero screens and application assessment, design review and audit. Energex is proposing a cost build-up approach, based on a number of service assumptions, to determine the price cap to apply to the majority of public lighting services.

Prices for price capped public lighting services have been calculated using the formula in Equation 13.1 and forecast costs for labour/contractors, materials, on-costs (fleet and materials), overheads (general and corporate) and capital allowance.

The proposed price schedule for price capped services in 2015-16 is provided in Table 13.3. These prices reflect efficient and prudent costs in providing these public lighting services based on existing and prospective service obligations.

Table 13.13 Indicative price caps for public lighting services

Service description	2015/16 (\$/service)
Provision of glare shields, vandal guards, luminaire replacement with aero screens	
Customer requests the supply and installation of adhesive luminaire glare screen(s).	187.50
Customer requests the supply and installation of standard luminaire glare screen(s) – internal.	153.26
Replacement of existing streetlight luminaires with aero screen low glare luminaires	515.80
Application assessment, design review and audit	
Rate 3 public lighting services Design assessment and preparation of offer Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits) 0-6 sites	81.22
Rate 3 public lighting services Design assessment and preparation of offer Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits) 7-30 sites	121.83
Rate 3 public lighting services Design assessment and preparation of offer Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits) 31+ sites	243.66
Rate 2 public lighting services Design assessment and preparation of offer Number of new, modified or recovered sites (i.e. stations numbers excluding street light pits and conduits) Resubmission	162.44

13.6.4 ACS Quoted services

Quoted services are utilised for all ACS connections, ancillary network services, auxiliary metering services and public lighting services.

For all quoted services, Energex has retained its current policy of not establishing a fixed price where variations in the precise nature of the services being sought mean that averaging would result in significant inequity for customers. The prices for quoted services will be calculated to reflect the actual cost of service provision based on the specific requirements of the customer.

In relation to auxiliary metering services and public lighting services, Energex has applied a number of service level assumptions, which account for regulatory obligations with regard to

the provision of the listed price cap services prescribed under the Electricity Industry Code³¹ and the Queensland Electricity Connection and Metering Manual.³² Any changes to the standard terms and conditions will be charged at a quoted cost where the price reflects the specific requirements of the customer.

³¹ [Queensland Competition Authority, Electricity Industry Code, July 2014](#)

³² [Energex/Ergon, Queensland Electricity Connection and Metering Manual, 2014](#)

14 Customer impacts

14.1 Standard control services

Energex is aware of the changing expectations of customers and the current upward pressure being exerted on energy prices and has considered this when developing its network tariffs. Energex is committed to achieving a balanced commercial outcome while meeting its obligations to customers and managing sustainability and risk. Energex remains committed to its aspirational goal of delivering real price reductions for customers.

14.1.1 The relationship between consumption and revenue in 2015-16

Reflective of the assets required to service customers, the ratio of assets per kWh of consumption is lower for ICC and CAC tariff classes than for SAC tariff class. Whilst customers assigned to ICC and CAC tariff classes use large volumes, they are connected high up in the distribution network. In contrast, the customers assigned to the SAC tariff class consume smaller volumes but are connected at LV, which is the lowest part of the network. As such, the cost-reflective price is higher for customers assigned to the SAC tariff class than for the ICC and CAC tariff class.

14.1.2 2015-16 price impacts

Table 14.1 provides an estimate of the charges in 2015-16 for the average consumption level in each tariff class. This table provides an estimate of the percentage change for the average customer. The impact on each customer will be dependent on the individual customer's demand and consumption patterns.

Table 14.1 - Estimated average percentage price¹ change by tariff class from 2014-15 to 2015-16

Tariff Class	Approved DUoS charge 2014-15 ² (c/kWh)	Estimated DUoS charge 2015-16 (c/kWh)	Average percentage change (%)
ICC	2.28	2.14	-6.1%
CAC	3.87	3.92	1.2%
SAC	11.04	10.62	-3.8%

Notes:

1. All prices exclude GST.
2. This quantity is the revenue Energex would recover using the 2014-15 approved DUoS charges (excluding metering services), applied to 2015-16 forecasted quantities, and divided by the 2015-16 forecasted energy.

ICC and CAC tariffs comprise various site-specific charges, and consequently customer specific impact analysis is omitted. General trends in ICC and CAC customer impacts are included in Table 14.2.

Table 14.2 - Customer impacts for the ICC and CAC tariff classes¹

Tariff Class	Impact	DUoS annual impact (%)	DPPC annual impact (%)	NUoS annual impact (%)
ICC	Average Impact	-6.1%	17.6%	4.0%
CAC	Average Impact	1.2%	18.4%	5.5%
Notes: 1. Impacts are calculated based on the revenue Energex would recover using the 2015-16 approved DUoS charges, divided by the revenue Energex would recover using the 2014-15 approved DUoS charges, using 2015-16 forecasted quantities, minus 1.				

Analysis undertaken by Energex on the network price increase that may be experienced by customers on tariffs within the SAC tariff class is included in Table 14.3.

The network prices used for the analysis comprise total annual NUoS excluding GST, and represent the typical 'N' (Network) component of a customer's bill. These NUoS prices are the AER approved prices for 2014-15 and the proposed 2015-16 prices included in this document for AER approval.

For volume based SAC tariffs, the typical annual energy consumption scenarios are drawn from the Queensland Competition Authority (QCA) Final Determination 2014-15.³³ For SAC primary residential tariffs, three different annual energy consumption scenarios are drawn from the QCA Final Determination 2014-15. Due to its complexity, the unmetered supply tariff has been excluded.

For SAC customers with demand based tariffs, an average load factor has been applied to the minimum recommended, typical (average forecasted) and maximum recommended demand for the purposes of analysis.

³³ [QCA Final Determination – Regulated Retail Electricity Prices 2014-15](#)

Table 14.3 - Indicative NUoS price change from 2014-15 to 2015-16 for varying usage profiles for SAC tariffs

Demand based tariffs	Usage type	Monthly demand ¹ (kVA)	2014-15 NUoS (\$)	2015-16 NUoS ³ (\$)	Typical annual NUoS increase ⁴ (\$)	Typical annual NUoS increase ⁵ (%)
Demand Large – NTC8100	Lowest usage	250	\$ 83,600.36	\$ 84,382.25	\$ 781.89	0.9%
	Typical usage	446	\$ 137,801.25	\$ 140,049.32	\$ 2,248.07	1.6%
	Highest usage	1,000	\$ 291,001.73	\$ 297,394.00	\$ 6,392.27	2.2%
Demand Small – NTC8300	Lowest usage	32	\$ 12,411.62	\$ 12,111.53	-\$ 300.09	-2.4%
	Typical usage	97	\$ 32,601.51	\$ 32,934.86	\$ 333.35	1.0%
	Highest usage	250	\$ 80,125.41	\$ 81,949.79	\$ 1,824.38	2.3%
Volume based tariffs	Usage type	Annual consumption ² (kWh)	2014-15 NUoS ⁶ (\$)	2015-16 NUoS ³ (\$)	Typical annual NUoS increase ⁴ (\$)	Typical annual NUoS increase ⁵ (%)
Business Flat – NTC8500	Typical usage	5,375	\$ 963.47	\$ 921.98	-\$ 41.49	-4.3%
Business ToU – NTC8800	Typical usage	15,250	\$ 2,125.45	\$ 2,070.13	-\$ 55.32	-2.6%
Residential Flat – NTC8400	Frugal, single person	2,200	\$ 452.22	\$ 447.06	-\$ 5.16	-1.1%
	Single parent, one child	4,091	\$ 700.44	\$ 676.44	-\$ 24.00	-3.4%
	Two parent, two child family	6,133	\$ 968.48	\$ 924.14	-\$ 44.34	-4.6%
Residential ToU – NTC8900	Frugal, single person	2,200	\$ 438.33	\$ 419.80	-\$ 18.52	-4.2%
	Single parent, one child	4,091	\$ 674.60	\$ 625.75	-\$ 48.85	-7.2%
	Two parent, two child family	6,133	\$ 929.75	\$ 848.15	-\$ 81.60	-8.8%
Super Economy – NTC9000⁷	Typical usage	2,000	\$ 110.88	\$ 125.59	\$ 14.72	13.3%
Economy – NTC9100⁷	Typical usage	2,000	\$ 201.22	\$ 210.55	\$ 9.34	4.6%

Notes:

1. Typical demand is the average 2015-16 forecasted demand for each tariff. Lowest and highest demand are the lowest and highest demand recommended for each tariff, respectively.
2. Consumption values for each scenario are drawn from the QCA Final Determination 2014-15.
3. Total annual NUoS excluding GST represents the typical 'N' component of a customer's bill.
4. Due to rounding, columns 2014-15 NUoS and Typical annual NUoS increase may not sum to 2015-16 NUoS.
5. Price increases shown in this table are indicative only. Individual customers should consider their specific circumstances to determine their likely network tariff impact.
6. In 2015-16, Metering services were moved from SCS to ACS and are no longer recovered through NUoS charges. So that comparisons are on a like for like basis, 2014-15 NUoS charges are reduced by the appropriate value of metering services.
7. NTC9000 and NTC9001 are secondary tariffs, when combined with the primary tariff an overall net benefit to the customer may result.

14.2 Alternative control services

As 2015-16 is the start of a regulatory control period and incorporates the final F&A reclassifications, regrouping and service assumption changes, there is limited information that can be provided in relation to price changes between 2014-15 and 2015-16 for ACS at a grouped level. Comparison pricing between 2014-15 and 2015-16 cannot be provided as this is the first year these pricing mechanisms are offered under this cost reflective framework.

14.2.1 Connection services

Connection services have undergone a significant change between the 2010-15 and the 2015-20 regulatory control periods, with new services added and many changing from a quoted price to a price cap. It is for this reason that an overall percentage change for the connection services group is not appropriate.

14.2.2 Ancillary network services

A similar situation for ancillary network services exists as that for connection services in that due to reclassifications and regroupings it is inappropriate to provide an overall percentage change between regulatory control periods.

14.2.3 Metering services

The Type 6 metering service charge was previously charged through DUoS pricing and subject to a vastly different pricing mechanism. It is therefore not appropriate to provide an overall percentage change for metering. As a proxy the comparison of NUoS pricing for the relevant SAC tariffs from 2014-15 has been compared to the NUoS pricing for the relevant SAC tariffs including the impact of the metering service charge for 2015-16.

14.2.4 Public lighting services

Price changes between 2014-15 and 2015-16 for ACS street lighting is provided in Table 14.4.

Table 14.4 - Street light services percentage increase from 2014-15 to 2015-16

Street lighting service ¹	Percentage change (%)
Major non-contributed	-35.1%
Major contributed	-17.9%
Minor non-contributed	-25.7%
Minor contributed	0.6%
Notes:	
1. Definitions for major and minor street lights are included in the glossary.	

The percentage changes in relation to street light services is primarily due to the reduced WACC between regulatory control periods (7.75 per cent to 5.85 per cent) and as a result of revised street light capex spend. Please note that there was a reallocation of cost base between street light major and street light minor due to a shift in build costs. This was the cause of the slight increase for minor contributed.

15 Publication of information about tariffs and tariff classes

RULE REQUIREMENT

Clause 6.18.9 Publication of information about tariffs and tariff classes

- (a) A Distribution Network Service Provider must maintain on its website:
- (1) a statement of the provider's tariff classes and the tariffs applicable to each class;
 - (2) for each tariff – the charging parameters and the elements of the service to which each charging parameter relates; and
 - (3) a statement of expected price trends (to be updated for each regulatory year) giving an indication of how the Distribution Network Service Provider expects prices to change over the Regulatory control period and the reasons for the expected price changes.
- (b) The information for a particular regulatory year must, if practicable, be posted on the website 20 business days before the commencement of the relevant regulatory year and, if that is not practicable, as soon as practicable thereafter.

Following approval, Energex's 2015-16 Pricing Proposal (this document) will be published on Energex's website on 2 June 2015, or as soon as practicable thereafter. Energex's 2015-16 Tariff Schedule will also be published as soon as practicable. As required by clause 6.18.9(a)(1) and (2) of the Rules, these documents outline Energex's tariff classes, the tariffs applicable to each class, and the charging parameters and elements of service to which each charging parameter relates.

The statement of expected price trends is published annually on the Energex website. This document details that:

- for SCS, any change in prices will be subject to the X Factor included in the Preliminary Decision, the change in CPI and any applicable yearly adjustments
- for ACS including street lighting and fee based services, the prices will be subject to an annual escalation process.

Appendices

1. **Standard control services: 2015-16 site-specific tariffs**
 - Appendix 1.1 – ICC site-specific tariffs
 - Appendix 1.2 – CAC site-specific tariffs
2. **Alternative control services: price development**
 - Appendix 2.1 – Price development for ACS
3. **Revenue allocation process**
 - Appendix 3 - Revenue allocation process
4. **Summary of compliance**
 - Appendix 4 – Summary of compliance
5. **Glossary**
 - Appendix 5 – Glossary

Appendix 1.1 – ICC site-specific tariffs

This section contains the 2015-16 proposed tariffs for the ICC tariff class. This year, no tariffs assigned to the ICC tariff class are side constrained.

ICC tariffs are site-specific and are not published due to the confidentiality requirements of the customer. Energex will provide these site-specific tariffs directly to the customer and their retailer.

Appendix 1.2 – CAC site-specific tariffs

This section contains the 2015-16 proposed tariffs for the CAC tariff classes, with the exception of NTC8000 HV Demand which does not contain any confidential site-specific tariff charges. This year, no tariffs allocated to the CAC tariff class are side constrained.

CAC tariffs are site-specific and are not published due to the confidentiality requirements of the customer. Energex will provide these site-specific tariffs directly to the customer and their retailer.

Appendix 2.1 – Price development for ACS – Fee based and quoted services

Development of prices for fee based services and quoted services

In the final F&A and Preliminary Decision, the AER made the decision to apply a price cap form of control to fee based services and cost build-up formula for quoted services.

Energex calculated the cost build up prices of its proposed fee based and quoted services for 2015-16 using the formula provided in Equation 13.1 in this Pricing Proposal. The formula is as follows:

$$\text{Price} = \text{Labour} + \text{Contractor Services} + \text{Materials} + \text{Capital Allowance} + \text{GST}$$

where:

Labour is all labour costs directly incurred in the provision of the service, labour on-costs, fleet on-costs and overheads. The labour cost for each service is dependent on the skill level, travel time, number of hours and crew size required to perform the service.

Contractor services is all costs associated with the use of external labour in the provision of the service, including overheads and any direct costs incurred as part of performing the service (e.g. traffic control, road closure permits).

Materials is the cost of materials directly incurred in the provision of the service, material storage and logistics on-costs and overheads.

Capital allowance is a return on, and return of, capital for non-system assets used in the delivery of the service.

GST is Goods and Services Tax, where applicable.

This formula provides for the recovery of labour, contractor and materials costs. It also provides for the recovery of a share of rate of return on non-system assets.

Energex's proposed fee-based prices were provided to the AER as part of Energex's Regulatory Proposal. The charges included in Chapter 13 are those approved by the AER in the Preliminary Decision.

Escalation of fee based services

For the regulatory years 2016-17 to 2019-20, Energex's 2015-16 fee based prices will be escalated using the price formula set out in the final F&A and the rates approved in the Preliminary Decision. The formula is as follows:

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

Where

p_i^{t-1} is the cap on the price of service i in year t-1

p_i^t is the price of service i in year t. However, for 2015-16, this is the price as determined by the AER in the Preliminary Decision.

ΔCPI_t is the annual percentage change in the ABS Consumer Price Index All Groups, Weighted Average of Eight Capital Cities from December in year t-2 to December in year t-1.

X_i^t is the X-factor for service i in year t as determined in the Preliminary Decision.

A_i^t is the adjustment factor for service i in year t.

Escalation of quoted services

In calculating quoted services, the price will reflect the labour and material costs approved by the AER in the Preliminary Decision, and the contemporary rate of return at the time the work is requested.

Appendix 3 - Revenue allocation process

Part 1. Revenue allocation process

Energex's TR (as determined by the AER) is based on a building block approach, which includes each of the following regulated cost components:

- Regulatory depreciation (the net of (negative) straight-line depreciation and the (positive) annual inflation adjustment of the asset base)
- Return on capital
- Operating expenditure
- Tax allowance.

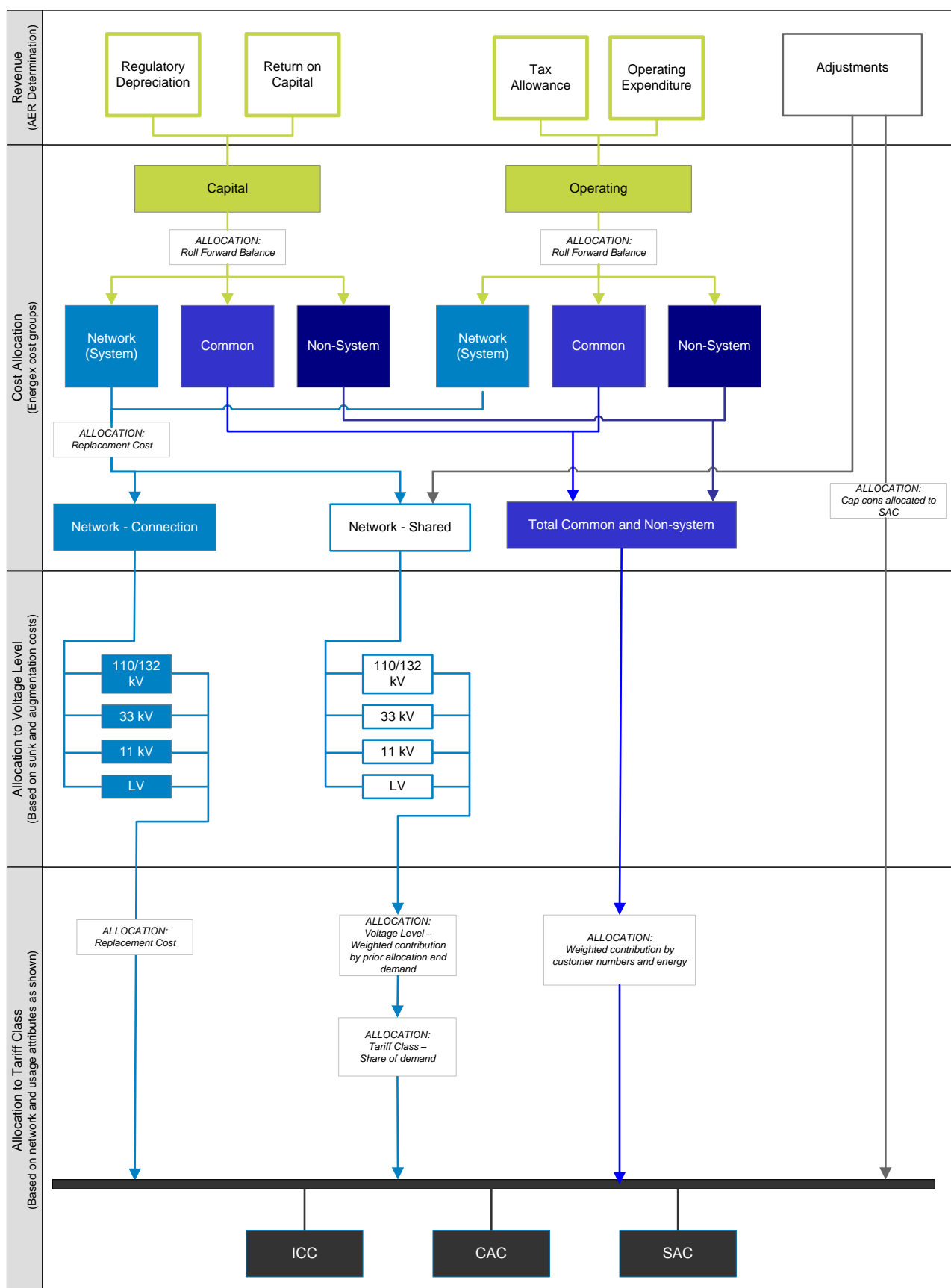
The purpose of the revenue allocation process is to allocate the network costs to the tariff classes in an economically efficient and cost reflective way.

The major steps in the process are:

- Step 1 – Allocate AER building blocks to Energex DCOS cost groups
- Step 2 – Allocate network (system) costs to voltage level
- Step 3 – Allocate costs to tariff classes and tariffs.

These steps are illustrated in Figure A 1 and explained throughout the remainder of Part 1 of this appendix. Part 2 of this appendix addresses the allocation of costs to specific tariffs.

Figure A 1 - Revenue allocations to tariff class



Step 1 – Allocate AER building blocks to Energex DCOS cost groups

The regulated cost components specified by the AER are initially allocated into the Energex cost groups of:

- Network (system)
- Common services
- Non-system
- Adjustments.

Network (system)

Network (system) costs are the directly attributable costs associated with the provision of network connection and distribution services that are attributable to a single customer or group of customers. Network costs are allocated between connection assets and shared network assets based on the replacement cost of assets.

Network costs are further allocated to each of the following voltage cost groups based on the replacement costs of assets:

- 110/132 kV
- 33 kV
- 11 kV
- LV.

Common services

Common services costs are costs associated with those system assets that benefit the system as a whole and are not directly related to any single customer or group of customers. Assets included in this category are reactive plant, load control, control centres and communications.

Non-system

Non-system costs include items such as corporate support (e.g. CEO, Finance, Human Resources and Legal), customer services, IT and communications, motor vehicles and occupancy costs that are not directly attributable to the operation and maintenance of the network but which are associated with network service delivery. These costs are treated consistently as a group as the cost drivers for this set of costs are consistent and it is impractical to manage a cost allocation stream for each of the specific components.

Step 2 – Allocate network (system) costs to voltage level

Individually calculated customers

The revenue allocation to each ICC is performed on an individual basis. Connection assets are assigned to ICCs based on information obtained from Energex network panel diagrams and connection agreements. Each ICC is then allocated a share of upstream shared network based on the ratio of the customer's capacity to the total capacity of the respective supply (substation).

The ratio is then applied to the replacement cost of system assets within the supply network to which the individual customer is connected.

Remaining allocation

Following the allocation of costs to ICCs, the remaining network costs are allocated to each of the voltage levels (110/132 kV, 33 kV, 11 kV and LV) on the basis of the replacement value of sunk assets. Costs per voltage level are then shared among tariffs that utilise that voltage level of the network using a hybrid allocation. The contribution of each tariff to network peak demand over the period prior to the widespread adoption of solar PV, herein referred to as the "peak contribution", and forecast average monthly maximum demands (kVA) are used. These weightings reflect the importance of cost reflectivity and compliance with the side constraint formula (through the weighting on the peak contribution) as well as the importance of stability (through the weighting on the forecast average monthly maximum demands). The weights vary each financial year as required to meet side constraint obligations and in the consideration of the consumer impact principle.³⁴

Step 3 – Allocated costs to tariff classes

There are several SCS tariff classes³⁵ to which network costs are allocated:

- ICC
- CAC
- SAC.

Network

Connection assets

Connection assets are allocated to each tariff class based on their share of the replacement cost for each voltage level. Contributed connection assets are not used in the allocation of capital costs as these assets have already been paid upfront by the customer.

³⁴ Energex is not required to comply with the side constraint formula in the first year of the regulatory control period, as such Energex will not be applying the methodology in 2015-16.

³⁵ For more information about Energex's tariff classes, refer to Table 3.1.

Shared network

With the exception of ICCs, the cost for each voltage level is allocated to each tariff class based on a weighted mixture of peak contribution (for cost reflectivity, reflecting the fact that peak demand is the primary driver of shared network costs) and forecast average monthly maximum demands (kVA) (for stability). This results in a revenue allocation for each tariff class as illustrated in Energex's 2015-16 Pricing Proposal.

Common services and non-system costs

Common services and non-system costs are allocated to each tariff class using a hybrid allocation. Customer numbers (75 per cent) and total forecast energy (25 per cent) are used. These weightings reflect that the number of customers is the primary driver of service and non-system costs.

Customer numbers and energy are used for the cost allocation approach as these costs are associated with the number of customers and their expectations/service requirements. Energex has a number of costs that are customer number based. A significant proportion of the overhead costs of the business are driven by the number of staff and systems required to serve the customer base.

Part 2. Revenue (charging parameter) allocation process

Following the revenue allocation to tariff classes, costs must be allocated to tariffs and ultimately to charging parameters (tariff elements), which may include any combination of the following:

- fixed charges
- capacity charges
- demand charges
- volume charges.

The purpose of the revenue (charging parameter) allocation process is to allocate or assign the costs to each parameter in the most efficient and cost-reflective way. Part 1 of this appendix sets out the process utilised by Energex for the allocation of revenue to charging parameters.

The process for revenue allocation involves two major steps:

- Step 1 – Allocate revenue to individual tariffs
- Step 2 – Allocate revenue to charging parameters.

These steps are undertaken for each tariff class and are illustrated in Figure A 2 and Figure A 3.

Figure A 2 - Revenue allocation approach - ICC and CAC tariff classes

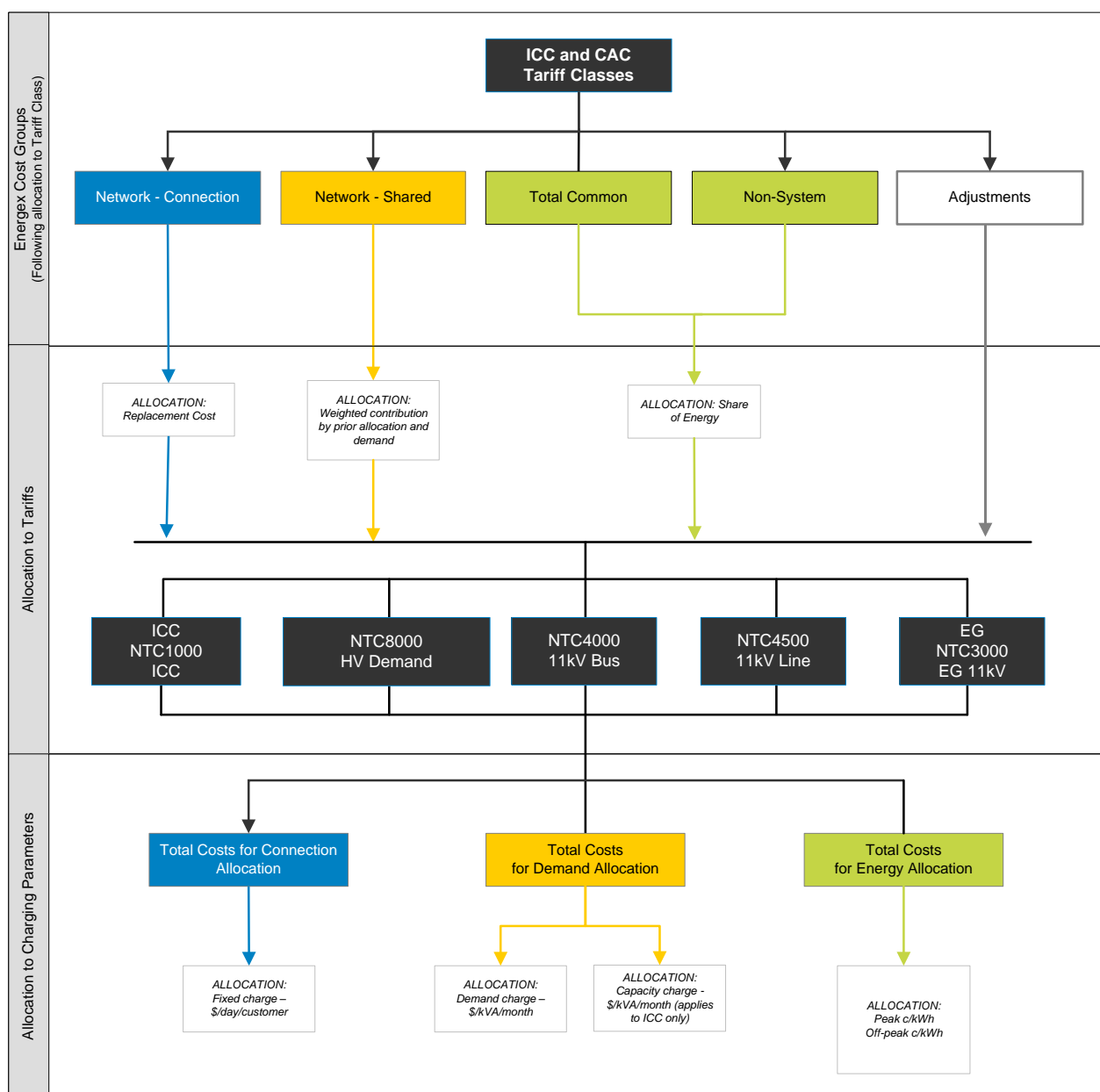


Figure A 3 - Revenue allocation approach - SAC demand based tariffs

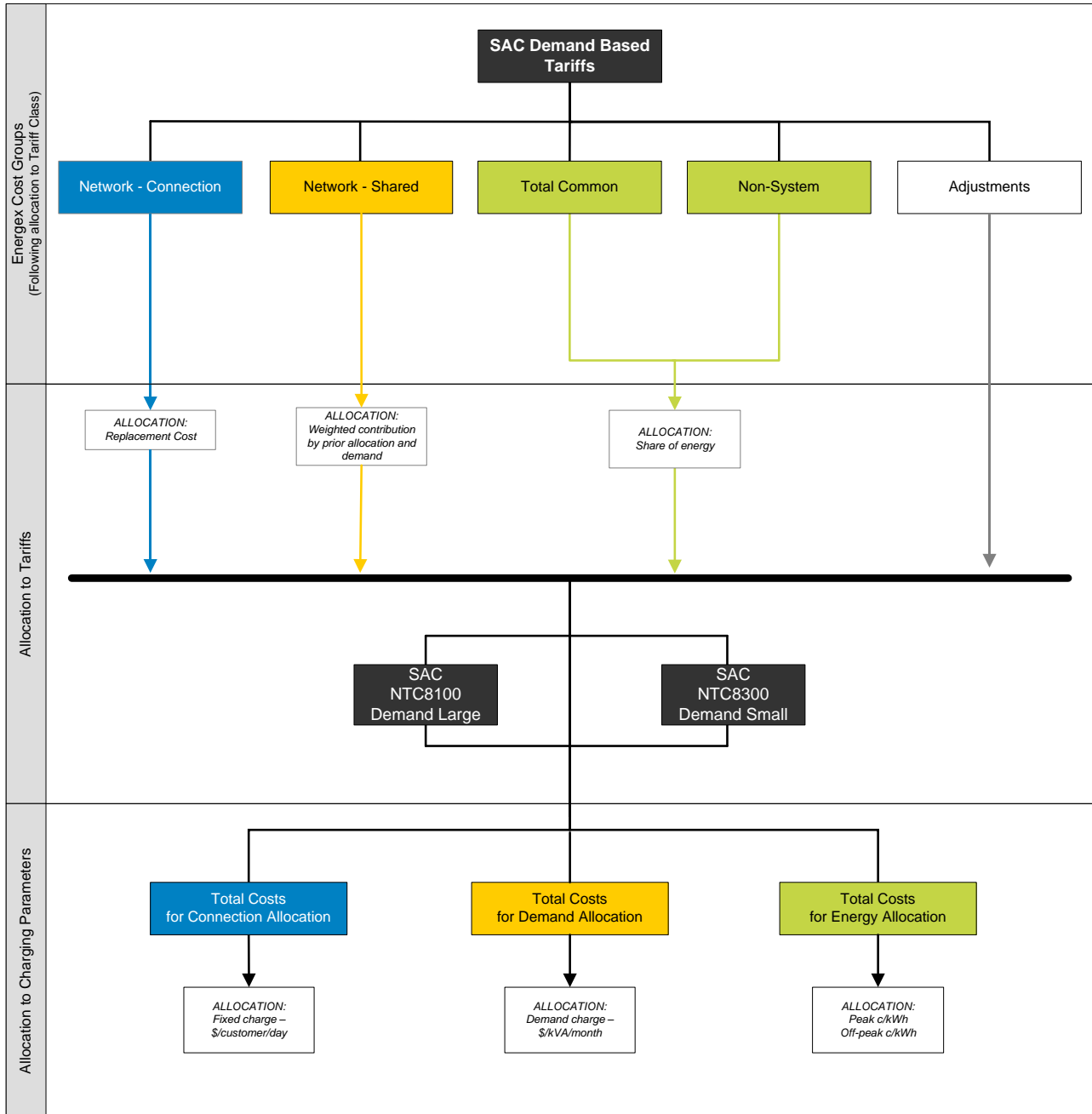
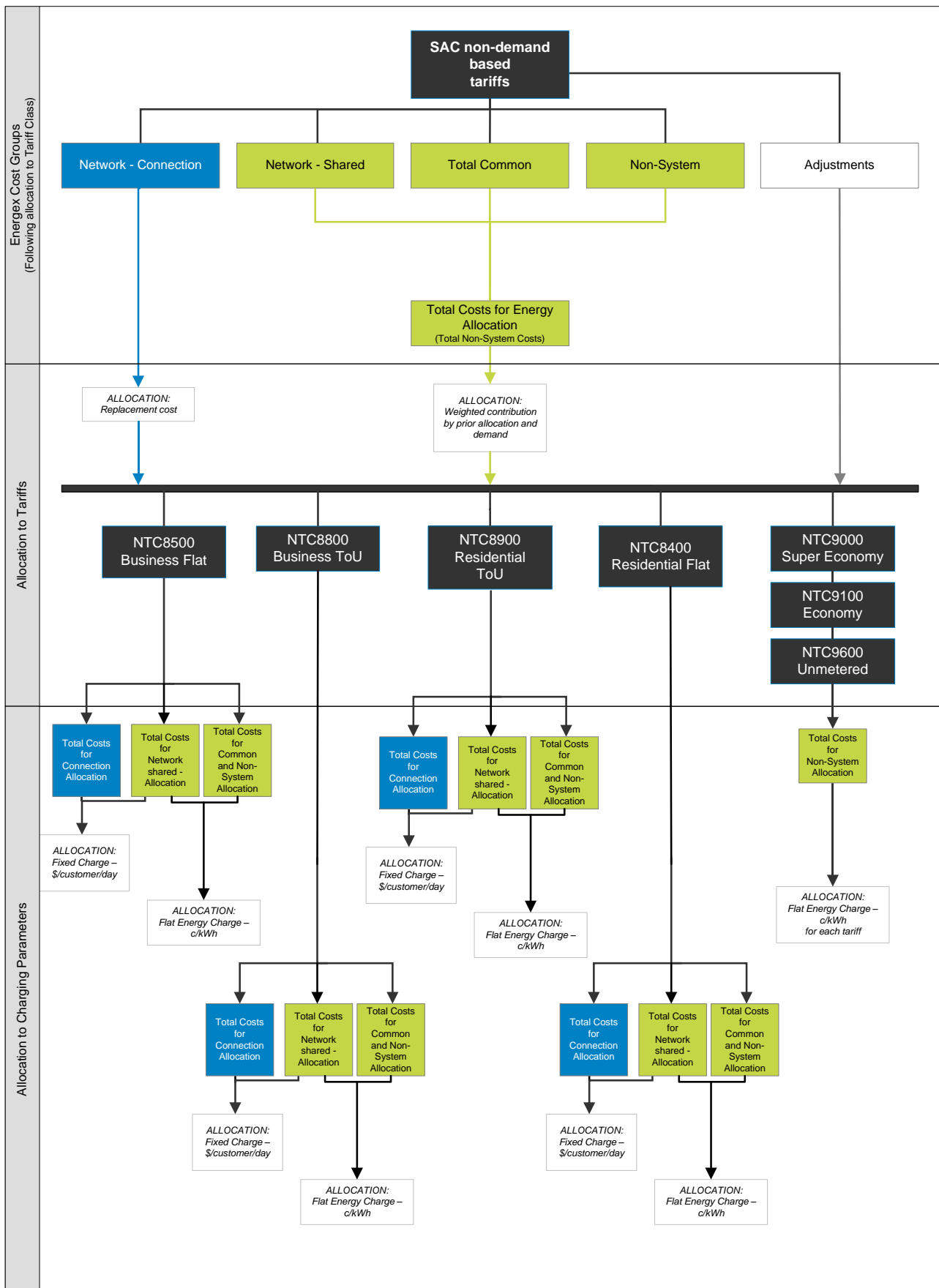


Figure A 4 - Revenue allocation approach - SAC non-demand based tariffs



Variances from allocated cost based tariffs

Energex develops and applies network tariffs based on the DCOS model. For each tariff class, the costs outlined above are recovered through a combination of fixed charges, capacity charges, demand charges and/or volume charges. The network pricing methodology applied to each of those groups has precluded any possible bypass challenge on the basis that the network tariff is efficient and an alternative electricity service cannot be sourced at a lower economic value.

Providing it is consistent with the Rules, Energex may negotiate a tariff other than the tariff calculated using the cost allocation approach, if it can be demonstrated that:

- the cost based network tariff is not efficient
- an economic bypass opportunity exists
- alternative electricity service could be utilised.

Appendix 4 – Summary of compliance

Table A 1 - Compliance with the National Electricity Rules

Clause	Requirement	Reference
6.1.4(a)	Energex must demonstrate that it does not charge a Distribution Network User DUoS charges for the export of electricity generated by the user into the distribution network.	Figure 3.1 Chapter 4 s 4.3 and Table 4.3
6.1.4(b)	Energex must demonstrate that it charges for the provision of connection services as allowed in the Rules.	Chapter 4 s 4.3 and Table 4.1, Table 4.2 and Table 4.3
5.5(h) and (i)	Energex must pass through to a connection applicant the amount (calculated in accordance with paragraph (i)) for the locational component of prescribed TUoS services that would have been payable by Energex to Powerlink had the connection applicant not been connected to its distribution network ('avoided charges for the locational component of prescribed TUoS services').	Chapter 8 s 8.1.2
6.18.2(b)(1)	Energex's Pricing Proposal must set out each tariff class (including the classes of alternative control services) for the relevant regulatory year.	Chapter 3 s 3.1 and Table 3.1 Chapter 12 s 12.1 and Table 12.1
6.18.2(b)(2)	Energex's Pricing Proposal must set out the proposed tariffs for each tariff class.	Chapter 3 Figure 3.1 Chapter 4 s 4.1, and Table 4.1 Chapter 13 s13.2, s13.3, s13.4, s13.5 and s13.6 Appendix 1
6.18.2(b)(3)	Energex's Pricing Proposal must set out, for each proposed tariff, the charge parameters and the elements of service to which each charging parameter relates.	Chapter 4 s 4.2 Table 4.2, Table 4.3 and Table 4.5 Chapter 13 s 13.1.2, 13.2.2, 13.3.3 Table 13.2
6.18.2(b)(4)	Energex's Pricing Proposal must 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.	Chapter 5 Table 5.1
6.18.2(b)(5)	Energex's 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.	Chapter 10

Clause	Requirement	Reference
6.18.2(b)(6)	Energex's Pricing Proposal must set out how DPPCs 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.	Chapter 4 s 4.4.1 and Table 4.5 Chapter 8
6.18.2(b)(6A)	Energex's Pricing Proposal must 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.	Chapter 4 s 4.4.2 Chapter 9 s 9.1
6.18.2(b)(6B)	Energex's Pricing Proposal must describe how each approved jurisdictional scheme that has been amended since the last jurisdictional scheme approval date meets the jurisdictional scheme eligibility criteria.	Chapter 9 Not applicable
6.18.2(b)(7)	Energex's Pricing Proposal must demonstrate compliance with the Rules and any applicable distribution Determination.	Appendix 4
6.18.2(b)(8)	Energex's 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.	Chapter 10 Appendix 4
6.18.3(a)	Energex's Pricing Proposal must define the tariff classes into which customers for direct control services are divided.	Chapter 3 s 3.1 and Table 3.1 Figure 3.1 Chapter 12 s 12.1 and Table 12.1
6.18.3(b)	Energex must demonstrate that for each customer for direct control services is a member of one or more tariff class.	Chapter 3 s 3.1.1 Figure 3.1 Chapter 12 S 12.2
6.18.3(c)	Energex must demonstrate that separate tariff classes have been constituted for standard control and alternative control customers. A customer for both standard control services and alternative control services may be a member of 2 or more tariff classes.	Chapter 3 s 3.1 Chapter 12 s 12.1
6.18.3(d)(1)	Energex must demonstrate that tariff classes have been formed based on groupings of customers on an economically efficient basis.	Chapter 3 s 3.1 Chapter 12 s 12.1
6.18.3(d)(2)	Energex must demonstrate that customers are grouped into tariff classes with regard to the need to avoid unnecessary transaction costs.	Chapter 3 s 3.1 Chapter 7 s 7.3 Chapter 12 s 12.1

Clause	Requirement	Reference
6.18.4(a)(1)(i), (ii) and (iii)	Energex must demonstrate that customers are assigned (or reassigned) to tariff classes on the basis of the nature and extent of their usage, the nature of their connection to the network, and the metering installed at the customer's premises.	Chapter 3 s 3.2.1 and Figure 3.1
6.18.4(a)(2)	Energex must demonstrate that customers with a similar profile are treated on an equal basis.	Chapter 3 s 3.2.1
6.18.4(a)(3)	Energex must demonstrate that customers with micro-generation facilities are treated no less favourably than customers without such facilities but with a similar load profile.	Chapter 3 s 3.2.2
6.18.4(a)(4)	Energex must demonstrate that customer assignment (or reassignment) to a particular tariff class does not occur in the absence of an effective system of assessment and review.	Chapter 3 s 3.2.4 Chapter 12 s 12.2
6.18.4(b)	Energex must demonstrate that 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, an effective system of assessment and review should be provided of the basis on which a customer is charged.	Chapter 3 s 3.2.1, s 3.2.2 and s 3.2.4
6.18.5(a)(1) and (2)	Energex must demonstrate that revenue expected to be recovered from a tariff class lies between the stand alone and avoidable cost.	Chapter 7 s 7.1 Chapter 13 s 13.1.4
6.18.5(b)(1)	Energex must demonstrate that tariffs and charging parameters have regard for long-run marginal cost.	Chapter 7 s 7.2 Chapter 13 s 13.1.3
6.18.5(b)(2)(i)	Energex must demonstrate that tariffs and charging parameters have regard for the transaction costs to customers.	Chapter 7 s 7.3
6.18.5(b)(2)(ii)	Energex must demonstrate that tariffs and tariff components are set with regard to whether customers are able or likely to respond to price signals.	Chapter 7 s 7.4
6.18.5(c)	Energex must demonstrate that if tariffs do not recover the required revenue as a result of the operation of clause 6.18.5(b), the tariffs have been adjusted so as to recover the expected revenue with minimum distortion to efficient patterns of consumption.	Chapter 7 s 7.5
6.18.6(b)	Energex must demonstrate that the weighted average revenue for a standard control tariff class does not exceed that for the previous regulatory year by more than the "permissible percentage" defined in clause 6.18.6(c) of the Rules.	Chapter 6 Clause not applicable year 1
6.18.6(c)(1) and (2)	Energex must demonstrate the "permissible percentage" has been calculated in accordance with the definition set out in this clause of the Rules.	Chapter 6 Clause not applicable year 1

Clause	Requirement	Reference
6.18.6(d)(1,2,3 and 4)	<p>In deciding whether the permissible percentage has been exceeded in a particular regulatory year, Energex must disregard the following:</p> <ul style="list-style-type: none"> the recovery of revenue to accommodate a variation to the distribution determination; the recovery of revenue to accommodate pass through of designated Pricing Proposal charges to retail customers; the recovery of revenue to accommodate pass through of jurisdictional scheme amounts for approved jurisdictional schemes; the recovery of revenue to accommodate any increase in Energex's annual revenue requirement by virtue of an application of a formula referred to in clause 6.5.2 (l). 	Chapter 6 Clause not applicable year 1
6.18.7(a)	Energex must demonstrate that tariffs passed on to customers include the charges to be incurred by Energex for DPPC.	Chapter 4 s 4.2 and Table 4.6 Chapter 8 s 8.2.1
6.18.7(b)	Energex must demonstrate that the DPPC charges passed on to customers do not exceed the estimated DPPC charges adjusted for over or under recovery in the previous regulatory year.	Chapter 8 s 8.3
6.18.7(c)(1), (2) and (3)	<p>Energex must demonstrate that any DPPC over or under recovery is calculated in a way that:</p> <ul style="list-style-type: none"> is consistent with the method determined by the AER in the relevant distribution determination for Energex; ensures that Energex is able to recover from retail customers no more and no less than the DPPC it incurs; and adjusts for an appropriate cost of capital consistent with the allowed rate of return. 	Chapter 8 s 8.3
6.18.7(d)(1), (2) and (3)	<p>Energex must demonstrate that it does not recover DPPC to the extent these are:</p> <ul style="list-style-type: none"> recovered through Energex's annual revenue requirement; recovered through tariffs designed to pass on jurisdictional scheme amounts under clause 6.18.7A; or recovered from another DNSP. 	Chapter 8 s 8.2
6.18.7A(a)	Energex's Pricing Proposal must provide for tariffs designed to pass on to customers Energex's jurisdictional scheme amounts for approved jurisdictional schemes.	Chapter 9 s 9.2 Chapter 4 Table 4.6
6.18.7A(b)	Energex's Pricing Proposal must demonstrate that the amount to be passed on to customers for a particular regulatory year must not exceed the estimated amount of jurisdictional scheme amounts for Energex's approved jurisdictional schemes adjusted for over or under recovery.	Chapter 9 s 9.3

Clause	Requirement	Reference
6.18.7A(c)	<p>Energex must demonstrate that the over and under recovery has been calculated in a way that:</p> <ul style="list-style-type: none"> • is consistent with the method determined by the AER for jurisdictional scheme amounts in the relevant distribution determination; • ensures Energex is able to recover from customers no more and no less than the jurisdictional scheme amounts it incurs; • 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. 	<p>Chapter 9 s 9.3 Clause not applicable year 1</p>
6.18.9(a)(1)	Energex must maintain on its website of our tariff classes and the applicable tariffs (or prices) for each tariff class.	Chapter 15
6.18.9(a)(2)	Energex must maintain on its website for each tariff, the charging parameters within each tariff class (i.e. the fixed, demand and energy prices) and the elements of the service to which each charging parameter relates.	Chapter 15
6.18.9(a)(3)	Energex must maintain on its website, a statement of expected price trends providing an indication of how Energex expects prices to change over the regulatory control period and why.	Chapter 15
6.18.9(b)	Energex must publish all information set out in clause 6.18.9(a) is published on its website 20 business days prior to the start of the relevant regulatory year or as soon as practicable thereafter.	Chapter 15

Table A 2 - Compliance with the Preliminary Decision

Section	Requirement	Reference
Attachment 14, Appendix A	Energex must maintain a DUoS unders and overs account in its annual Pricing Proposal in accordance with clause 6.12.1(13).	Chapter 2 s 2.2.3 and Table 2.3
Attachment 14, Appendix B	Energex must maintain an unders and overs account for DPPC in its annual Pricing Proposal in accordance with clause 6.12.1(19).	Chapter 8 s 8.3 and Table 8.1
Attachment 14, Appendix C	Energex must maintain a jurisdictional scheme unders and overs account in its annual Pricing Proposal in accordance with clause 6.12.1(20).	Chapter 9 s 9.3
Attachment 14, Appendix D	Energex must demonstrate that in assigning customers to a particular tariff class or re-assigning a customer from one tariff class to another should be subject to an effective system of assessment and review in accordance with 6.12.1(17).	Chapter 3 s 3.2, s 3.2.2 and s 3.2.4 Figure 3.1
Attachment 16, s 16.1.1	Energex must demonstrate the application of a price cap for the form of control to ancillary network services.	Chapter 12, Chapter 13

Appendix 5 – Glossary

Table A 3 - Acronyms and abbreviations

Abbreviation	Description
A/C	Air-conditioning
ACS	Alternative Control Service
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AH	After Hours
AIC	Average Incremental Cost
AR	Allowed Revenue
BH	Business Hours
CAB	Contributed Asset Base
CAC	Connection Asset Customers
CAM	Cost Allocation Method
Capex	Capital Expenditure
CPI	Consumer Price Index
CT	Current transformer
DC	Direct Connected
DCOS	Distribution Cost of Supply
DNSP	Distribution Network Service Provider
DPPC	Designated Pricing Proposal Charges (previously known as TUoS)
DUoS	Distribution Use of System
EG	Embedded Generators
ENA	Energy Network Australia
ENCAP	Electricity Network Capital Program
EOO	Luminaires owned and operated by Energex
FiT	Feed-in Tariff (Solar FiT) under the Queensland Solar Bonus Scheme
GOO	Luminaires gifted to Energex by a council and operated by Energex
HV	High Voltage
IAP2	International Association for Public Participation
ICC	Individually Calculated Customers
LCC	Large Customer Connection
LRMC	Long Run Marginal Cost
LV	Low Voltage
MAR	Maximum Allowable Revenue

Abbreviation	Description
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules (or Rules)
NMI	National Meter Identifier
NTC	Network Tariff Code
NUoS	Network Use of System
O&M	Operating and Maintenance Allowance (Opex)
Opex	Operating and Maintenance Expenditure
PV	Photovoltaic (Solar PV)
PV	Present Value
QAO	Queensland Audit Office
QCA	Queensland Competition Authority
QESI	Queensland Electricity Supply Industry
RAB	Regulatory Asset Base
Rules	National Electricity Rules (or NER)
SAC	Standard Asset Customers
SCI	Statement of Corporate Intent
SCS	Standard Control Service
SRMC	Short-Run Marginal Cost
STPIS	Service Target Performance Incentive Scheme
TNCP	Transmission Network Connection Point
TNSP	Transmission Network Service Provider
ToU	Time of Use
TR	Total Allowed Revenue
TSS	Tariff Structure Statement
TUoS	Transmission Use of System
WACC	Weighted Average Cost of Capital
WAR	Weighted Average Revenue

Table A 4 - Units of measurement used throughout this document

Base Unit	Unit name	Multiples used in this document
h	hour	GWh, kWh, MWh
V	volt	kV, kVA, MVA
VA	volt ampere	kVA, MVA
var	var	kvar
W	watt	W, kW, kWh, MW

Table A 5 - Multiples of prefixes (units) used throughout this document

Prefix symbol	Prefix name	Prefix multiples by unit	Prefixes used in this document
G	giga	10^9	GWh
M	mega	1 million or 10^6	MW, MWh, MVA
k	kilo	1 thousand or 10^3	kV, kVA, kvar, kW, kWh

Table A 6 - Definitions of terminology used throughout this document

Term	Abbreviation / Acronym	Definition
After Hours	AH	Any time outside business hours.
Air-conditioning	A/C	An air-conditioning appliance; commonly used in the context of a unit, i.e. A/C unit.
Allowed Revenue	AR	Refer to AER, Final Framework and Approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015, April 2014.
Alternative Control Service	ACS	<p>Customer specific or customer requested services. These services may also have potential for provision on a competitive basis rather than by the local DNSP.</p> <p>This service class includes the provision, construction and maintenance of type 6 metering services, street lighting assets, and fee based and quoted services.</p>
Australian Energy Market Commission	AEMC	A national, independent body that exists to make and amend the detailed rules for the NEM to ensure efficient, reliable and secure energy market frameworks which serve the long term interests of consumers.
AEMC Power of Choice Review		<p>Conducted by the AEMC, the Power of choice review sets out a substantial reform package for the NEM to provide consumers with more opportunities to make informed choices about the way they use electricity and manage expenditure. The package of reforms proposed by the AEMC includes, among other things:</p> <ul style="list-style-type: none"> reform of distribution network pricing principles to improve consumer understanding of cost reflective prices and give customers more opportunity to be rewarded for changing their consumption patterns. expand competition in metering services with a view to provide services that reflect consumer preferences at efficient prices.
Australian Energy Regulator	AER	The economic regulator of the NEM established under section 44AE of the <i>Competition and Consumer Act 2010</i> (Commonwealth).
Business hours	BH	8 am to 5 pm, Monday to Friday.
Capacity charge		This part of the tariff seeks to reflect the costs associated with providing network capacity required by a customer on a long term basis. It is levied on the basis of either contracted demand or forecasted capacity using prior year information. The charge is applied as a fixed dollar amount per kVA per month.
Capital expenditure	Capex	Expenditure typically resulting in an asset (or the amount Energex has spent on assets).
Charging parameter		The charges comprising a tariff. Parameters include demand, capacity, fixed and volume (flat or ToU) charges.
Common service		A service that ensures the integrity of a distribution system, benefits all distribution customers and cannot reasonably be allocated on a locational basis.

Term	Abbreviation / Acronym	Definition
Connection Asset Customers	CAC	Typically, those customers connected at 11 kV who are not allocated to the ICC tariff class.
CAC 11 kV Line		CAC customer whose point of connection to the electricity distribution network is on the 11 kV line shared between other customers.
CAC 11 kV Bus		CAC customer whose point of connection to the electricity distribution network is directly to the 11 kV Bus. The customer is supplied by a dedicated connection that is not shared with any other customer directly from the substation.
Connection asset (Contributed or non-contributed)		Related to building connection assets at a customer's premises as well as the connection of these assets to the distribution network. Connection assets can be contributed (customer funded, then gifted to Energex) or non-contributed (Energex funded).
Connection point		The agreed point of supply established between a Network Service Provider and another Registered Participant, Non-Registered Customer or franchise customer. The meter is installed as close as possible to this location.
Customer		Refer to chapter 10 of the Rules.
Demand		The amount of electricity energy being consumed at a given time measured in either kilowatts (kW) or kilovolt amperes (kVA). The ratio between the two is the power factor.
Demand charge		This part of the tariff accounts for the actual demand a customer places on the electricity network. The actual demand levied for billing purposes is the metered monthly maximum demand. The charge is applied as: <ul style="list-style-type: none"> • a fixed dollar price per kW per month or kVA per month for DPPC charges, and • a fixed dollar price per kVA per month for DUoS charges (ICC, CAC and SAC demand based customers).
Demand based tariff		The tariff has been structured to include a demand component so the customer's actual demand is reflected in the price they pay for their electricity.
Distribution Cost of Supply Model	DCOS	The Energex model used to allocate costs approved by the AER to the various tariff classes.
Distribution Use of System	DUoS	This refers to the network charges for the use of the distribution network.
Designated Pricing Proposal Charge	DPPC	Refers to the charges incurred for use of the transmission network; previously referred to as Transmission Use of System (TUoS).
Economy		Tariff whereby a customer's specified connected appliances are controlled by network equipment so that supply will be available for a minimum period of 18 hours per day during time periods set at the absolute discretion of Energex.

Term	Abbreviation / Acronym	Definition
Embedded Generator	EG	In line with the ENA classification, EGs are generally those generators with an installed capacity as follows: Medium: 1-5 MVA (LV or HV) or < 1 MVA (HV) Large: > 5 MVA
Electricity Network Capital Program Review	ENCAP	The ENCAP Review was commissioned by the Queensland Government in late 2011. An independent panel was established to undertake a review of the capital infrastructure programs of Energex, Ergon Energy and Powerlink with the view to achieving efficiencies and cost savings while maintaining network security and reliability. The panel identified significant potential capital expenditure savings and Energex's program of capital work was reduced in line with these findings.
Energy		The amount of electricity consumed by a customer (or all customers) over a period of time. Energy is measured in terms of watt hours (Wh), kilowatt hours (kWh), megawatt hours (MWh) or gigawatt hours (GWh).
Feed-in Tariff	FiT	The rate that is to be paid for the excess energy generated by customers and fed back into the electricity grid under the Queensland Solar Bonus Scheme. The FiT rate is determined by the Queensland Government and is paid by the purchaser of the excess energy.
Final Determination		A distribution Determination document published by the AER in its role as Energex's economic regulator that provides for distribution charges to increase during Energex's Regulatory Control Period. In this proposal, reference to the Final Determination refers to the 2010-2015 AER Final Determination.
Fixed Charge		For large customers, reflects the incremental costs that arise from the connection and management of the customer. For small customers, reflects the average capacity set aside on the shared network for a typical customer using the tariff.
High Voltage	HV	Refers to the network at 11 kV or above.
Individually Calculated Customer	ICC	Typically those customers connected at 110 kV or 33 kV, or connected at 11 kV and with electricity consumption greater than 40 GWh per year at a single connection point or demand greater than or equal to 10 MVA, or where a customer's circumstances mean that the average shared network charge becomes meaningless or distorted.
International Association for Public Participation Spectrum	IAP2 Spectrum	Approach used by Energex in its engagement activities with shareholders. The IAP2 Spectrum© clarifies with decision makers the level of public participation required for an engagement activity. The approach needs to consider the specific circumstances and how involved the customer needs to be for each engagement activity.
Large customer classification		As per tariff class assignment process for customers with consumption greater than 100 MWh per year.

Term	Abbreviation / Acronym	Definition
Large customer connection		New or upgraded connections of greater than 1 MVA or 4 GWh per year, or where the uniqueness of the connection assets would result in distortion of the SAC pricing.
Long Run Marginal Cost	LRMC	An estimate of the cost (long term variable investment) of augmenting the existing network to provide sufficient capacity for one additional customer to connect to the network or an additional MW of demand.
Low Voltage	LV	Refers to the sub-11 kV network
Maximum Allowable Revenue	MAR	The maximum revenue which can be recovered through tariffs for the regulatory year. This terminology is no longer in use as per the AER's F&A.
Maximum demand		The maximum demand recorded at a customer's individual meter or the maximum demand placed on the electrical distribution network system at any time or at a specific time or within a specific time period, such as a month. Maximum demand is an indication of the capacity required for a customer's connection or the electrical distribution network.
Micro Generator		AS4777-compliant generators with an installation size of less than 10 kW (single phase) or 30 kW (three phase) connected to the LV network.
Market Settlement and Transfer Solution	MSATS	The central repository for Standing Data for all NMIs in contestable markets.
National Electricity Law	NEL	The legislation that establishes the role of the AER as the economic regulator of the NEM and the regulatory framework under which the AER operates.
National Electricity Market	NEM	The interconnected electricity grid covering Queensland, New South Wales, Victoria, Tasmania, South Australia and the Australian Capital Territory.
National Electricity Rules	NER (the Rules)	The legal provisions (enforced by the AER) that regulate the operation of the NEM and the national electricity systems, the activities of market participants and the provision of connection services to retail customers.
National Metering Identifier	NMI	A unique number assigned to each metering installation.
Network Coupling Point	NCP	The point at which connection assets join a distribution network, used to identify the distribution service price payable by a customer.
Network Tariff Code	NTC	Energex's nominated code that represents the network tariff being charged to customers for network services.
Network Use of System	NUoS	The tariff for use of the distribution and transmission networks. It is the sum of both Distribution Use of System (DUoS) and Designated Pricing Proposal Charge (DPPC).
Non-Demand based tariff		The tariff is based around a fixed daily component and the actual energy (kWh) used by the customer.

Term	Abbreviation / Acronym	Definition
Non-Standard		Where specialist resources or extensive man-hours for a small customer connection are required to assess the applicants proposed changes to connection agreements or standard methods of connection to the DNSP's network.
Off-peak period		All hours which are outside Peak and Shoulder periods.
Operating expenditure	Opex	Opex is the combined total of maintenance and operating costs. Maintenance Costs are those that are directly and specifically attributable to the repair and maintenance of network assets, while Operating Costs are those that relate to the day to day operations of Energex which are not maintenance costs.
Peak period		Meter Type 1–4 (ICC, CAC & SAC demand based): The hours between 7 am and 11 pm, Monday to Friday. Meter Type 6 (SAC Non-demand Small Business): The hours between 7 am and 9 pm, Monday to Friday. Meter Type 6 (SAC Non-demand based Residential): The hours between 4 pm and 8 pm, Monday to Friday.
Power factor		Power factor is the ratio of kW to kVA, and is a useful measure of the efficiency in the use of the network infrastructure. The closer the power factor is to one (1), the more efficiently the network assets are utilised. Power factor = kW / kVA
Preliminary Decision		A Preliminary Decision is produced by the AER in its role as Energex's economic regulator. A Preliminary Decision is an interim Determination for the forthcoming regulatory period provided to Energex by the AER, prior to the release of a Final Determination. In this proposal, reference to the Preliminary Decision refers to the Preliminary Decision Energex determination 2015-16 to 2019-20.
Price path		Outlines the escalation factors to be applied to the initial price over the Regulatory Control Period.
Pricing objectives		Objectives established by Energex to complement (and ensure compliance with) the pricing principles set out in the Rules, and to provide clarity when formulating tariffs.
Pricing principles		The pricing principles are established in Clause 6.18.5 of the Rules and provide guidance to Energex for setting tariffs.
Pricing Proposal		This document. Prepared by Energex in accordance with Clause 6.18.2 of the Rules. It is provided to the AER for approval and outlines how Energex will collect its revenue during the relevant regulatory year.
Queensland Electricity Supply Industry	QESI	Queensland Electricity Supply Industry (QESI) – Application for Review. This review allows a customer's retailer to request a change to the customer's NTC or NMI classification utilising form 1634.
Queensland Government Solar Bonus Scheme	SBS FiT	A program that pays residential and other small energy customers for the surplus electricity generated from roof-top solar photovoltaic (PV) systems that is exported to the Queensland electricity grid.

Term	Abbreviation / Acronym	Definition
Regulatory Control Period		A standard Regulatory Control Period for DNSPs is a period of not less than 5 regulatory years. Energex's current Regulatory Control Period is 2015-20, commencing 1 July 2015.
Regulatory depreciation		Also referred to as the return of capital – the sum of the (negative) straight-line depreciation and the (positive) annual inflation effect on the opening regulatory asset base (RAB).
Regulatory year		A specific year within the regulatory control period.
Return on capital		The return necessary to achieve a fair and reasonable rate of return on the assets necessarily invested in the business.
S-banking		Mechanism allowing Energex to propose delaying a portion of the STPIS revenue increment or decrement to reduce price volatility to customers in accordance with clauses 6.4.3(a)(6) and 6.4.3(b)(6).
Service Target Performance Incentive Scheme	STPIS	A scheme developed and published by the AER in accordance with clause 6.6.2 of the Rules, that provides incentives (that may include targets) for DNSPs (including Energex) to maintain and improve network performance.
Short-Run Marginal Cost	SRMC	The cost (short term, fixed investment) of a customer connecting to the network but using only the existing network capacity.
Shoulder period		The hours between 7 am to 4 pm and 8 pm to 10 pm, Monday to Friday and 7 am to 10 pm weekends. For residential ToU tariff (NTC8900).
Side constraint		A side constraint is an upper limit on price increases applied at the tariff class level for SCS and is calculated in accordance with clause 6.18.6 of the Rules by taking into account volume forecasts, CPI, X Factor, STPIS and Capital Contributions. The purpose of a side constraint is to mitigate the impact of prices on customers from one year to the next within a regulatory control period.
Site-specific charge		This charge is calculated for a site and is specific to the individual connection point.
Small customer classification		As per tariff class assignment process for customers with consumption less than 100 MWh per year.
Solar Photovoltaic	Solar PV	A system that uses sunlight to generate electricity for residential use. The system provides power for the premises with any excess production feeding into the electricity grid.
Standard Asset Customer	SAC	Generally those customers connected to the LV network.
Standard Control Service	SCS	Services that are central to electricity supply and therefore relied on by most (if not all) customers. This service class includes network, connection and metering services.
Statement of Corporate Intent	SCI	The SCI is published at least annually and represents the agreement between Energex's Board of Directors and the shareholding Minister's on Energex's Performance in the relevant financial year in support of the state reform agenda. It is prepared in accordance with section 7(2) of the <i>Government Owned Corporates Act 1993</i> (Queensland).

Term	Abbreviation / Acronym	Definition
Street lights (Major)		Lamps in common use for major road lighting including: a) High Pressure Sodium 100 watt (S100) and above; b) Metal Halide 150 watt (H150) and above; and c) Mercury Vapour 250 watt (M250) and above.
Street lights (Minor)		All lamps in common use for minor road lighting, including Mercury Vapour, High Pressure Sodium and Fluorescent.
Super economy		Tariff whereby a customer's specified permanently connected appliances are controlled by network equipment so that supply will be permanently available for a minimum period of 8 hours at the absolute discretion of Energex but usually between the hours of 10:00 pm and 7:00 am.
Tariff		The set of charges applied to a customer in the respective billing period. A tariff consists of one or more charging parameters that comprise the total tariff rate.
Tariff class		A class of customers for one or more direct control services who are subject to a particular tariff or particular tariffs (as per chapter 10 of the Rules).
Tariff Schedule		The Tariff Schedule is published by Energex annually at the beginning of the financial year and outlines its tariffs for SCS and ACS. It also provides information about how Energex assigns customers to tariff classes and the internal review process undertaken if a customer requests a review of a decision. The Tariff Schedule applies for the duration of the relevant financial year.
Tariff Structure Statement	TSS	Document prepared in accordance with Part I of chapter 6 of the Rules, setting out Energex's network price structures and indicative tariffs that will apply over each year of the regulatory control period.
Time of use	ToU	Refers to tariffs that vary according to the time of day at which the electricity is consumed.
Total allowed revenue	TR	Refer to AER, Final Framework and Approach for Energex and Ergon Energy Regulatory control period commencing 1 July 2015 (April 2014).
Transmission Use of System	TUoS	Superseded terminology for Designated Pricing Proposal Charges (DPPC) which are charges incurred for use of the transmission network.
Unmetered supply		A customer who takes supply where no meter is installed at the connection point.
Volume (energy) charge		This part of the tariff seeks to reflect costs not directly allocated to network drivers and costs that are proportional to the size of the customer. The energy consumption (kWh) for the period, as recorded by the customer's meter, is utilised to calculate this part of the tariff charge. This charge is applied as a fixed amount (cents) per kilowatt hour (kWh), i.e. c/kWh.

Term	Abbreviation / Acronym	Definition
Volume (energy) charge (Off-peak)		This charge is applicable to those customers who are on a Residential and/or Business Time of Use tariff. The energy consumption (kWh) during off-peak periods (refer to Off-peak Period for times), as recorded by the customer's meter, is utilised to calculate this part of the tariff. This charge is applied as a fixed amount (cents) per kilowatt hour (kWh), i.e. c/kWh.
Volume (energy) charge (Peak)		This charge is applicable to those customers who are on a Residential and/or Business Time of Use tariff. The energy consumption (kWh) during peak periods (refer to Peak Period for times), as recorded by the customer's meter, is utilised to calculate this part of the tariff. This charge is applied as a fixed amount (cents) per kilowatt hour (kWh) i.e. c/kWh.
Volume (energy) charge (Shoulder)		This charge is applicable to those customers who are on a Residential Time of Use tariff. The energy consumption (kWh) during shoulder periods (refer to Shoulder Period for times), as recorded by the customer's meter, is utilised to calculate this part of the tariff. This charge is applied as a fixed amount (cents) per kilowatt hour (kWh), i.e. c/kWh.
Weighted Average Cost of Capital	WACC	The return a business must earn on an existing asset base. For Energex, the WACC is set by the AER in a Determination for a specific regulatory control period.
Weighted Average Revenue	WAR	This is the average revenue that is expected to be recovered by tariff class during the relevant regulatory control year.
X Factor		Under the CPI – X form, prices or allowed revenues are adjusted annually for inflation (CPI) less an adjustment factor 'X'. The X Factor represents the change in real prices or revenues each year, so the DNSP can recover the costs that it expects to incur over the regulatory control period.

