

Network Tariff Guide

1 July 2017 to 30 June 2018



positive energy

Version control

Version	Date	Description
1.0	17/05/17	Published version on Energex's website
2.0	20/06/17	Updated descriptions of ACS Pricing Code 320 and 324
		Updated Section 2.3.3 to include comments on the Queensland Government's direction not to pass on the jurisdictional scheme amount from 1 July 2017.

Energex Limited (Energex) is a subsidiary of Energy Queensland Limited, the holding company for both Energex and Ergon Energy Corporation. Energex is the Distribution Network Service Provider that builds, owns, operates and maintains the electricity distribution network in the growing region of South East Queensland. Energex provides distribution services to almost 1.4 million domestic and business connections, delivering electricity to a population base of around 3.4 million people.

Energex's key focus is distributing safe, reliable and affordable electricity in a commercially balanced way that provides value for its customers, manages risk and builds a sustainable future.

© Energex Limited, Australia

This work is copyright. Material contained in this document may be reproduced for personal, in-house or non-commercial use, without formal permission or charge, provided there is due acknowledgment of Energex Limited as the source.

Requests and enquiries concerning reproduction and rights for a purpose other than personal, in-house or non-commercial use should be addressed to:

General Manager Regulation and Pricing Energex GPO Box 1461 BRISBANE QLD 4001

Table of Contents

1	INTR	ODUCTION	1
	1.1	Overview of Energex's activities	1
	1.2	Service classification	2
	1.3	Network pricing documents	3
2	UNDE	ERSTANDING SCS TARIFFS	5
	2.1	SCS tariff classes	5
	2.2	SCS tariffs	6
	2.3 2.3.1	Network tariff charging components DUoS	
	2.3.2	DPPC (or TUoS)	
	2.3.3	Jurisdictional schemes	
	2.4	2017-18 SCS tariff charges	15
3	ALTE	RNATIVE CONTROL SERVICES	16
	3.1	Tariff classes	16
	3.2	ACS tariffs	17
	3.3	Connection services	20
	3.4	Ancillary network services	24
	3.5 3.5.1 3.5.2 3.5.3	Type 6 Metering Services Metering Service Charge Auxiliary Metering Services Intra-period adjustments to ACS	26 26
	3.6	Public Lighting Services	27
4	ОТНЕ	ER SERVICES	30
	4.1	Other Business-2-Business services	30
5		GNMENT AND RE-ASSIGNMENT OF CUSTOMERS TO TARIFF CLASS	_
APP	ENDIX 1	I – ADDITIONAL BUSINESS-TO-BUSINESS CODES	2
APP	ENDIX 2	2 – GLOSSARY	4

List of tables

Table 2.1 – 2017-18 SCS tariff classes
Table 2.2 - SCS tariffs and tariff structures for customers connected at 33 kV and above 6
Table 2.3 - SCS tariffs and tariff structures for customers connected at 11 kV7
Table 2.4 - SCS tariffs and tariff structures for LV customers with consumption greater than 100 MWh/year9
Table 2.5 - SCS tariffs and tariff structures for residential customers
Table 2.6 - SCS tariffs and tariff structures for LV business customers with consumption less than 100 MWh/year11
Table 2.7 - Secondary tariffs and tariff structures
Table 2.8 – Usage charging timeframes12
Table 2.9 – Demand charging timeframes13
Table 3.1 - 2016-17 ACS tariff classes
Table 3.2 - ACS subject to Schedule 817
Table 3.3 – Form of control of connection services
Table 3.4 – Connections services quoted product codes
Table 3.5 – Classification of ancillary services24
Table 3.6 – Ancillary network services quoted product codes
Table 3.7 – Quoted auxiliary metering service Product Codes
Table 3.8 – Classification of public lighting services
Table 3.9 – Quoted public lighting service Product Codes 28

1 Introduction

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:
 - 3. A statement of the provider's tariff classes and the tariffs applicable to each class.
- (b) A Distribution Network Service Provider must publish on its website the information referred to in paragraph (a) within 5 business days from the date the AER publishes an approved pricing proposal under paragraphs 6.18.8(c2) or 6.18.8(c3) for that Distribution Network Service Provider

This document is Energex's Network Tariff Guide for 2017-18. It has been prepared to support Energex's 2017-18 Pricing Proposal and meets the requirements set out in Clause 6.18.9(a)(3) of the National Electricity Rules (the Rules).

The document provides Energex's tariff classes and tariffs for direct control services, comprising Standard Control Services (SCS) and Alternative Control Services (ACS), for the period from 1 July 2017 to 30 June 2018. The tariff classes and tariffs included in this document align with Energex's 2017-20 Tariff Structure Statement (TSS) and 2017-18 Pricing Proposal, both approved by the Australian Energy Regulator (AER). To assist customers and retailers, it also provides brief eligibility criteria for assigning customers to tariff classes and tariffs, product codes and Ellipse Codes and Peace charge codes for distribution services, and a list of services which are requested through the B2B communication channels for 2017-18.

1.1 Overview of Energex's activities

Energex is the Distribution Network Service Provider (DNSP) that builds, owns, operates and maintains the electricity distribution network in the growing region of South East Queensland. Energex provides distribution services to 1.4 million domestic and business connections, delivering electricity to a population base of around 3.4 million people.

Energex's network consists of property, plant and equipment assets valued at approximately \$12 billion. Energex's network is characterised by:

- Connection to Powerlink's high voltage transmission network at 27 connection points
- High density/central business district (CBD) areas such the Brisbane CBD, and Gold Coast and Sunshine Coast city areas which are typically supplied by 110/11kV, 110/33kv, 132/33kV or 132/11kV substations
- Urban and rural areas where 110/33kV or 132/33kV bulk supply substations are typically used to supply 33/11kV zone substations
- Urban suburban areas close to the CBD which have extensive meshed 33kV underground cable networks that supply zone substations

- Outer suburb and growth areas to the north, south and west of Brisbane which are supplied via modern indoor substations of modular design that enable further modules to be readily added
- New subdivisions in urban areas which are supplied by underground networks with padmount substations.

1.2 Service classification

The AER determines how Energex's distribution services are classified and in turn the nature of economic regulation. This is important as it determines how prices will be set and how revenue is recovered from customers.

In the Framework and Approach and confirmed in the Final Decision, the AER classified Direct Control Services as Standard Control Services (SCS) or Alternative Control Services (ACS).^{1,2} Direct Control Services are services for which the AER determines the prices (in the case ACS) or overall cap on the revenue that may be recovered from all the services (in the case of SCS).

The classification of distribution services is illustrated in Figure 1-1.

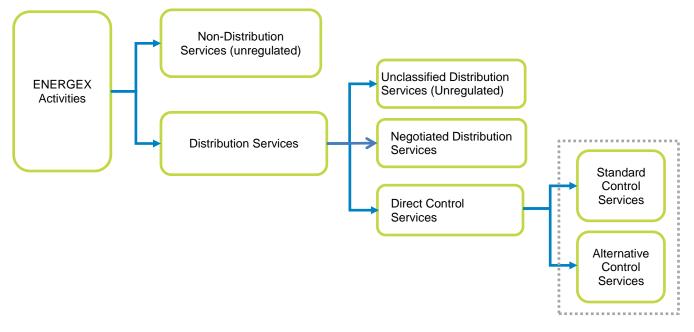


Figure 1-1 Classification of Energex's distribution services

Services classified as SCS relate to the access and supply of electricity using Energex's poles and wires (distribution system) to customers. Specifically, they include network services (e.g. construction, maintenance and repair of the distribution system), some

_

¹ Australian Energy Regulator, Final Framework and approach for Energex and Ergon Energy Regulatory Control Period commencing 1 July 2015, April 2014.

² Australian Energy Regulator, Final Decision Energex determination 2015-16 to 2019-20, October 2015.

connection services (e.g. small customer connections) and Type 7 metering services.³ The AER applies a revenue cap form of control to SCS.

ACS are services provided by Energex to specific customers mostly charged on a 'user pay' basis and, therefore, do not form part of the SCS or distribution use of system (DUoS) revenue allowance. ACS include services such as Type 6 metering services, public lighting services, an increasing number of connection services, and ancillary services.

ACS are comprised of:

- Fee based services One-off distribution services that Energex undertakes at the request of an identifiable customer, retailer or appropriate third-party. These services are priced on a fixed fee basis as the costs of providing the service (and therefore the price charged to customers) can be determined in advance.
- Quoted services These services are priced on application as the nature and scope
 of these services are variable and the cost of providing the service (and therefore the
 price charged to customers) is specific to the individual requestor's needs and cannot
 be determined in advance.
- Type 6 metering services These services relate to the provision, installation and on-going maintenance of Type 6 meters owned by Energex. Energex recovers its costs through daily meter services charges (MSC).
- Public lighting services These services relate to the provision, construction and maintenance of public lighting assets owned by Energex. Energex recovers its costs through a daily services charge.

With regards to Negotiated Distribution Services, the AER's role is limited to overlooking the negotiating process as it is assumed that customers in this category have sufficient market power to negotiate provision of services.⁶

Finally, Unclassified Services are not distribution services or are services that are contestable. The AER plays no role in relation to Unclassified Services.

This Network Tariff Guide discusses the tariff classes and tariffs for those distribution services classified as Direct Control Services comprising SCS and ACS.

1.3 Network pricing documents

In addition to this Network Tariff Guide, Energex publishes a suite of network pricing documents, some of which are intended to demonstrate Energex's compliance with regulatory obligations, others have been developed to assist network users, retailers and interested parties understand the development and application of Energex's network tariffs. These documents are listed in Figure 1-2 below.

⁶ To date, Energex does not have any negotiated distribution services.

³ Type 7 metering refers to unmetered connections where usage is estimated (includes public lighting and traffic lights).

⁴ Type 6 meters are manually read accumulative meters which only record total electricity usage.

⁵ The conveyance of electricity to street lights remains a SCS, while services relating to the prevision, construction and maintenance of street lighting assets have been classified by the AER as ACS.

Figure 1-2 Supporting network pricing documentation

Tariff Structure Statement

- Sets out the proposed tariff classes, tariffs and tariff structures for the 2017-20 period
- Details how the proposed tariff classes, tariffs and tariff structures comply with the pricing principles
- •Describes the tariff setting process for SCS and ACS
- Provides details on Energex's tariff assignment policy
- Provides indicative prices for the 2017-20 period for SCS and ACS
- Approved by the AER in February 2017, following stakeholder consultation.

Annual Pricing Proposal

- Sets out the proposed tariff classes, tariffs and charging parameters developed under the TSS that will enable Energex to recover its allowed revenue for 2017-18
- Demonstrates compliance with the regulatory requirements
- Provides 2017-18 network charges for SCS and ACS
- Provides updated indicative price levels for each tariff and for each of the remaining regulatory years (provided in a separate Indicative Price Schedule)
- · Submitted to the AER annually for approval.

Information Guide

- Sets out the basis upon which Energex's revenue cap for SCS is recovered from various customer groups through network tariffs
- Outlines Energex's tariffs and charges for SCS and ACS for 2017-18
- Assists customers and retailers by providing eligibility criteria for assigning customers to tariff classes and tariffs, and product codes.

User Guides

- Provide an introduction to the current nework tariffs for each customer group
- Published annually and updated as required.

Connection Policy

- Sets out the circumstances in which a retail customer or real estate developer may be required to pay a connection charge for the provision of a connection service
- Details how Energex calculates the capital contributions to be paid.

2 Understanding SCS tariffs

Energex provides network services to a wide diversity of customers with varying sizes, locations and usage patterns. To minimise transaction costs, customers with similar characteristics are grouped together into tariff classes and tariffs.

This chapter details Energex's tariff classes, tariffs and tariff structures for SCS in alignment with the TSS.

2.1 SCS tariff classes

Energex's network tariff classes have been designed to group similar customers together according to voltage level, usage profiles, and nature of the connection in accordance with the requirements set out in the Rules. Energex has three tariff classes, namely:

- Individually Calculated Customers (ICC)
- Connection Asset Customers (CAC)
- Standard Asset Customers (SAC).

Details of Energex's tariff classes are outlined in Table 2.1.

Table 2.1 - 2017-18 SCS tariff classes

Tariff class	Eligibility criteria
Individually Calculated Customers (ICC)	Customers are assigned to the ICC tariff class if they are coupled to the network at 110 kV or 33 kV.
	Customers with a network coupling point at 11 kV may also be assigned to the ICC tariff class if:
	 the customer's electricity consumption is greater than 40 GWh per year at a single connection; and/or
	 the customer's annual maximum demand is greater than or equal to 10 MVA; and/or
	 the customer's circumstances mean that their average shared network charge becomes meaningless or distorted.
	ICC tariffs are based on:
	 the actual dedicated connection assets utilised by the customer; 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 with a network coupling point at 11 kV who are not allocated to the ICC tariff class are allocated to the CAC tariff

Tariff class	Eligibility criteria
Customers (CAC)	 class. CAC tariffs are based on: 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.
Standard Asset Customers (SAC)	All customers connected at LV are classified as SACs. SAC tariffs are based on: average charges for dedicated connection assets; plus average charges for use of the shared distribution network, including common and non-system assets.

2.2 SCS tariffs

Each tariff class consists of a number of individual tariffs that are established on the same basis as the tariff class.

Energex's tariffs and tariff structures for SCS for 2017-18 are provided in Table 2.2 to Table 2.7.

Table 2.2 - SCS tariffs and tariff structures for customers connected at 33 kV and above

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation
ICC (NTC1000)	Customers in the ICC tariff class are assigned to this tariff.	Supply charge	Unit: \$/day (these charges vary for each customer).	Default tariff.
		ToU usage charge	Unit: c/kWh Peak and off-peak timeframes defined in Table 2.8.	
		Demand charge	Unit: \$/kVA/month Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. ¹	
		Capacity charge	Unit: \$/kVA/month.	

Note:

1. The average power used during the 30 minute period is used to calculate demand.

Table 2.3 - SCS tariffs and tariff structures for customers connected at 11 kV

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation	
11kV Bus (NTC4000)		Supply charge	Unit: \$/day (these charges vary for each customer).	Default for customers with an 11kV bus configuration.	
		Usage charge	Unit: c/kWh Quantity: Peak and off- peak timeframes are defined in Table 2.8.		
		Demand charge	Unit: \$/kVA/month Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. ¹		
11kV Line (NTC4500)	Customers with a network coupling point at an 11 kV feeder shared with	Supply charge	Unit: \$/day (these charges vary for each customer).	Grandfathered on 1 July 2017.	
	feeder shared with other customers.	Usage charge	Unit: c/kWh. Quantity: Peak and offpeak timeframes defined in Table 2.8.		
				Demand charge	Unit: \$/kVA/month. Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. ¹
HV Demand (NTC8000)	Previously, this tariff was allocated to 11 kV customers with energy less than	Supply charge	Unit: \$/day (these charges vary for each customer).	Grandfathered since 1 July 2015.	
	4 GWh per year and demand less than 1 MVA. From 1 July 2017, new customers with these characteristics are allocated to either NTC7400 – Demand ToU 11 kV if they share an 11 kV feeder with other customers or to NTC4000 – 11 kV	Usage charge	Unit: c/kWh. Quantity: Peak and offpeak timeframes defined in Table 2.8.		
		Demand charge	Unit: \$/kVA/month. Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. ¹		

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation
	Bus if they have an 11 kV bus configuration.			
EG – 11kV (NTC3000)	Previously, this tariff was allocated to customers who were predominantly	Supply charge	Unit: \$/day (these charges vary for each customer).	Grandfathered since 1 July 2015.
	generation customers with a generation capacity greater than 30 kVA. From 1 July 2017,	Usage charge	Unit: c/kWh. Quantity: Peak and off- peak timeframes defined in Table 2.8.	
rom 1 July 2017, new customers with these characteristics are allocated to either NTC7400 – Demand ToU 11 kV if they share an 11 kV feeder with other customers or to NTC4000 – 11 kV Bus if they have an 11 kV bus configuration.	Demand charge	Unit: \$/kVA/month Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. 1		
Demand ToU 11kV (NTC7400)² Cost reflect demand tal customers network co point at 11 shared with	Cost reflective ToU demand tariff for customers with a network coupling point at 11 kV feeder shared with other customers.	Supply charge	Capital: Unit: \$/day/\$M of noncontributed asset value (NCCAV). Quantity: NCCAV (\$M) and number of days in billing period. Operating and maintenance: Unit: \$/day/\$M connection asset value (CAV). Quantity: NCCAV (\$M) and number of days in billing period.	Tariff offered from 1 July 2017 on a voluntary basis for all existing 11kV Line customers on legacy tariffs. This tariff will become the default tariff from 1 July 2017 for new customers that share an 11kV feeder with other customers.
		Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	
		Peak Demand charge	Unit: \$/kVA/month. Quantity: Maximum kilowatt demand measured as a single	

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation
			peak over a 30 minute period during charging window defined in Table 2.9.	
		Excess demand charge	Unit: \$/kVA/month. Quantity: The maximum of: Zero, Maximum kilowatt demand measured as a single peak over a 30 minute period outside the peak charging windows defined in Table 2.9, minus the peak demand quantity as described above. ¹	

Notes:

- 1. The average power used during the 30 minute period is used to calculate demand.
- 2. Proposed new tariff.

Table 2.4 - SCS tariffs and tariff structures for LV customers with consumption greater than 100 MWh/year

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation
Large Demand (NTC8100) Small	LV customers with consumption greater than 100 MWh per	Supply charge	Unit: \$/day. Quantity: Days in billing period.	NTC8100: Optional tariff. NTC8300:
Demand (NTC8300)	Customers with consumption less than 100 MWh per	Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	Default tariff.
	year may voluntarily access these tariffs. Customers must have appropriate Type 1-4 metering to access these tariffs.	Demand charge	Unit: \$/kVA/month. Quantity: Maximum kVA demand measured over a 30 minute period during the billing period. ¹	

Note:

1. The average power used during the 30 minute period is used to calculate demand.

Table 2.5 - SCS tariffs and tariff structures for residential customers

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation	
Residential Flat (NTC8400)	This tariff is the default tariff for residential customers regardless of their size and cannot be used in conjunction with Residential ToU (NTC8900).	Supply charge	Unit: \$/day. Quantity: Days in billing period.	Default tariff.	
		Usage charge	Unit: c/kWh. Quantity: kWh in billing period.		
Residential ToU (NTC8900)	This tariff is available to residential customers	Supply charge	Unit: \$/day. Quantity: Days in billing period.	Optional tariff.	
	regardless of their size and cannot be used in conjunction with Residential Flat (NTC8400). Customers must have a ToU capable meter to access this tariff.	Usage charge	Unit: c/kWh. Quantity: kWh in billing period. Peak, shoulder and off-peak timeframes defined in Table 2.8.		
Residential Demand (NTC7000)	This tariff is available to residential customers regardless of their size and cannot be used in conjunction with Residential Flat (NTC8400). Customers must have appropriate Type 1-4 metering to access this tariff.	Supply charge	Unit: \$/day. Quantity: Days in billing period.	Optional tariff.	
		size and cannot be used in conjunction with Residential	Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	
		Demand charge	Unit: \$/kW/month. Quantity: Maximum kilowatt demand measured as a single peak over a 30 minute period during peak charging window defined in Table 2.9. ¹ For the first 12 months on this tariff, eligible customers' chargeable demand will be capped. Terms and conditions are provided in Appendix 3.		

Note:

1. The average power used during the 30 minute period is used to calculate demand.

Table 2.6 - SCS tariffs and tariff structures for LV business customers with consumption less than 100 MWh/year

Tariff	Tariff description	Tariff structure	Charging parameter	Implementation
Business Flat (NTC8500)	This tariff is the default tariff for business customers with consumption less than 100 MWh per year.	Supply charge	Unit: \$/day. Quantity: Days in billing period.	Default tariff.
		Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	
Business ToU (NTC8800)		Supply charge	Unit: \$/day. Quantity: Days in billing period.	Optional tariff.
		Usage charge	Unit: c/kWh. Quantity: kWh in billing period. Peak and off-peak timeframes defined in Table 2.8.	
Business Demand (NTC7100) ¹	This tariff is available to business customers with consumption	Supply charge	Unit: \$/day. Quantity: Days in billing period.	Optional tariff offered from 1 July 2017.
	less than 100 MWh/year and cannot be used in conjunction with	Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	
	conjunction with Business flat (NTC8500). Customers must have appropriate Type 1-4 metering to access this tariff.		Unit: \$/kW/month. Quantity: Maximum kilowatt demand measured as a single peak over a 30 minute period during peak charging window defined in Table 2.9. ²	

Notes:

- Proposed new tariff.
 The average power used during the 30 minute period is used to calculate demand.

Table 2.7 - Secondary tariffs and tariff structures

Tariff	Tariff structure	Charging parameter	Implementation
Super Economy (NTC9000) ¹ Economy ¹ (NTC9100)	Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	Optional secondary tariff.
Smart Control ² (NTC7300)	Usage charge	Unit: c/kWh. Quantity: kWh in billing period.	Optional secondary tariff in conjunction with the residential demand tariff, NTC7000 – Residential Demand.

Notes:

- 1. This tariff cannot be used in conjunction with NTC7000.
- 2. Proposed new tariff.

The terms and conditions for secondary tariffs can be found in Appendix 2 of the Energex 2017-18 Annual Pricing Proposal.⁷

Table 2.8 - Usage charging timeframes

Tariff	Network Tariff Code	Charging timeframes	Weekdays ¹	Weekends
Residential ToU	NTC8900	Off-Peak	10pm – 7am	10pm – 7am
		Shoulder	7am – 4pm, 8pm – 10pm	7am – 10pm
		Peak	4pm – 8pm	No peak
Business ToU	NTC8800	Off-Peak	9pm – 7am	Anytime
		Peak	7am – 9pm	No peak
N N N	NTC1000 NTC4000	Off-Peak	11pm – 7am	Anytime
	NTC4500 NTC8000 NTC3000	Peak	7am – 11pm	No peak

Note:

1. Include government specified public holidays.

⁷ Energex website - Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/residential-customers/pricing-publications; or Pricing Publications page for business customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

Table 2.9 - Demand charging timeframes

Tariff	Network Tariff Code	Charging timeframes	Workdays ¹	Weekends
Residential ToU	NTC7000	Off-Peak	8pm – 4pm	Anytime
		Peak	4pm – 8pm	No peak
Business ToU	NTC7100 NTC7400	Off-Peak	9pm – 9am	Anytime
	11101400	Peak	9am – 9pm	No peak

Note:

2.3 Network tariff charging components

The total network charges customers are charged for their use of the distribution network are known as Network Use of System (NUoS) charges. NUoS charges are comprised of the following components:

- Distribution Use of System (DUoS) this charge refers to the network charge attributable to the use of the distribution network
- Designated Pricing Proposal Charge (DPPC) this charge refers to charges incurred for the use of the transmission network. It was previously referred to as Transmission Use of System (TUoS)
- Jurisdictional Scheme this charge refers to the amounts imposed on Energex through legislative obligations by the Queensland Government.

2.3.1 DUoS

The DUoS charging component recovers costs associated with connection services and/or use of the distribution network for the conveyance of electricity (i.e. SCS).

Energex's SCS are regulated under a revenue cap form of price control. The revenue cap (or Total Annual Revenue) for any given year reflects Energex's smoothed revenue requirement determined by the AER, plus other revenue adjustments.⁸ The AER's revenue determination is based on its assessment of Energex's efficient costs over the 2015-20 regulatory control period.⁹

^{1.} Workdays are weekdays but exclude government specified public holidays.

⁸ The revenue smoothing process is used by the AER by applying X factors to Energex's annual revenue to develop a smooth revenue path over the regulatory control period.

⁹ Australian Energy Regulator, Final Decision Energex determination 2015-16 to 2019-20, October 2015.

The revenue cap is allocated to the tariff classes, network voltage levels and then to specific tariffs. Further details on the revenue allocation approach used by Energex in deriving prices are provided in the 2017-18 Information Guide available on the Energex website.¹⁰

2.3.2 DPPC (or TUoS)

Transmission-related costs recovered by Energex are comprised of:

- The use of Powerlink's transmission network to deliver high voltage electricity from generators to Energex's distribution network. The revenue to be recovered by Powerlink over the regulatory control period is determined by the AER. The DPPC amount to be recovered by Energex in 2017-18 is consistent with the AER's draft decision on Powerlink's 2017-22 revenue determination.¹¹
- Avoided TUoS charges paid to eligible Embedded Generators (EG) This
 mechanism set out in the Rules recognises that the electricity supplied to Energex by
 EGs would have otherwise been supplied by Powerlink. Each year Energex is
 required to estimate the avoided costs of upstream transmission to be remitted to
 EGs in the form of a lump sum payment after 30 June.
- Payments made to other DNSPs for the supply of distribution services For Energex, these costs relate to the contingency supply by Essential Energy from its Terranora Substation to Energex's Kirra Zone substation.

Energex is able to recover DPPC amounts for its customers via a separate DPPC charge.

The allocation of DPPC to ICC customers is based on the direct pass-through of Powerlink advised charges. For CAC and SAC tariffs, the allocation is based on a combination of demand and volume proportions. Further details on the revenue allocation approach used by Energex in deriving prices are provided in the 2017-18 Information Guide available on the Energex website. 12

2.3.3 Jurisdictional schemes

Jurisdictional schemes are certain programs implemented by state governments that place legislative obligations on DNSPs. For Queensland, this includes:

-14-

¹⁰ Energex website - Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/residential-customers/pricing-publications; or Pricing Publications page for business customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.
¹¹ Australian Energy Regulater Poeft Desision Regulater Poeft Poeft Poeft Poeft Poeft Poeft Poeft Poeft Poeft Poeft

¹¹ Australian Energy Regulator, Draft Decision Powerlink's 2017-22 Revenue Determination.

¹² Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

- The Solar Bonus Scheme (SBS) this scheme obligates Energex to pay a feed-in tariff (FiT) for energy supplied into its distribution network from specific microembedded generators
- Energy Industry Levy Energex is obligated under its Distribution Authority to pay a
 proportion of the Queensland Government's funding commitments for the Australian
 Energy Market Commission's (AEMC's) workperformed under the National Energy
 Retail Law.

Energex is able to recover jurisdictional scheme amount from customers via a separate Jurisdictional Scheme charge. However, on 31 May 2017 Energex received a direction from Queensland Government not to pass on AER-approved jurisdictional scheme charges to customers in our network tariffs. The Queensland Government will instead subsidise the cost of the scheme until at least 2020. Consequently, from 1 July 2017, the jurisdictional scheme rates in Energex's network tariffs will be set to zero.

2.4 2017-18 SCS tariff charges

The proposed tariff levels for SCS in 2017-18, including DUoS, DPPC, jurisdictional scheme payments and total NUoS, are provided in a separate document, 2017-18 Energex Network Prices, available on the Energex website.¹³

_

¹³ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

3 Alternative Control Services

3.1 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.

There are four ACS tariff classes that are based on the type of service a customer requires:

- Connection services
- Ancillary network services
- Metering services
- Public lighting services.

These services form the basis of tariff classes for ACS which are described in Table 3.1.

Table 3.1 - 2016-17 ACS tariff classes

Tariff class	Activity
Connection services	Pre-connection services
	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.
	Generally relates to services which require a customised or site-specific response and/or are available contestably.
	Unless otherwise specified, services or activities undertaken under this service group relate to both small and large customers and real estate development connections.
	Connection services
	Connection services include the design, construction, commissioning and energisation of connection assets for large customers and for real estate developments.
	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.
	Include temporary connections for short term supply (e.g. blood bank vans, school fetes).

Tariff class	Activity
	Post-connection services Post-connection services are those services initiated by a customer which are specific to an existing connection point.
	Accreditation services Accreditation of alternative service providers and approval of their designs, works and materials.
Ancillary network services	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.
Metering services	Type 6 Metering Metering services encompass the metering installation, provision, maintenance, reading and data services of Type 6 metering.
	Auxiliary Metering Services
	Includes work initiated by a customer which is specific to a metering point.
Public lighting	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.

3.2 ACS tariffs

ACS comprise a combination of fee based and quoted services. Quoted services are performed on a Price on Application (POA) basis.

Schedule 8 of the Electricity Regulation 2006 sets further price caps on a number of Energex's ACS. As the maximum fees in Schedule 8 are imposed through legislation, they take precedence over the maximum prices otherwise approved for these services by the AER.

The application of these lower prices means Energex incurs a revenue shortfall in providing some ACS. This revenue shortfall cannot be recovered from other customers or via other charges.

Table 3.2 - ACS subject to Schedule 8

Service description	Product code	Peace charge code
Connection services – Large Customer Connections		
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.	NCT1MB	120

Service description	Product	Peace
Cervice description	code	charge code
Customer requested temporary connection (short term) and recovery of the temporary builders supply (business hours) - CT. Includes additional crew.	NCT2MB	122
Temporary connection of unmetered equipment to an existing LV supply.	TUMS	1400
Post Connection Services – Connection Management Serv	ices – De-enerç	gisation
Retailer requested de-energisation of the customer's premises who be performed (eg pole, pillar or meter isolation link)	nere the de-ene	rgisation can
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.	DNSD1MB	300
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.	DNSD2MB	302
Retailer requests de-energisation of the customer's premises where the customer has not paid their electricity account and the deenergisation 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.	DN\$1MB	304
Retailer requests de-energisation of the customer's premises where the customer has not paid their electricity account and the deenergisation can be performed at the premises by a method other than main switch seal (i.e. at pillar box, pit or pole top) - CT.	DN\$2MB	306
Retailer Requested De-energisation (Main Switch Seal)		
Retailer requests a de-energisation of the customer's premises, carried out by way of main switch seal (other than for non-payment).	DNS	320
Retailer requests a de-energisation of the customer's premises, carried out by way of main switch seal (for non-payment)	DNS\$1MB	324
Post Connection Services – Connection Management Serv	ices – Re-enerç	gisation
Re-energisation (non-payment) – no visual examination required		
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).	RN\$1MB	200
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT (business hours).	RN\$2MB	202
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).	RN\$1MA	204
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT (after hours).	RN\$2MA	206
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual	RN\$1MT	208

Service description	Product code	Peace charge code	
required, no CT (any time).			
Retailer requests re-energisation of the customer's premises where the customer has not paid their electricity account. No visual required, CT (any time).	RN\$2MT	210	
Re-energisation (Main Switch Seal) – no visual required			
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (business hours).	RNMSS	406	
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (after hours).	RNMSSA	408	
Retailer requests re-energisation for the customer's premises following a main switch seal (no visual required) (any time).	RNMSST	410	
Re-energisation (Main Switch Seal) - non-payment - no visual req	uired		
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).	RNS\$1MB	412	
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).	RNS\$1MA	416	
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).	RNS\$1MT	414	
Re-energisation – visual examination required			
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (business hours).	RNV1MB	224	
Retailer requests a visual examination upon re-energisation of the customer's premises – CT (business hours).	RNV2MB	226	
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (after hours).	RNV1MA	228	
Retailer requests a visual examination upon re-energisation of the customer's premises - CT (after hours).	RNV2MA	230	
Retailer requests a visual examination upon re-energisation of the customer's premises - no CT (anytime).	RNV1MT	232	
Retailer requests a visual examination upon re-energisation of the customer's premises - CT (anytime).	RNV2MT	234	
Re-energisation (non-payment) – visual examination required			
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).	RN\$V1MB	212	
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 (business hours).	RN\$V2MB	214	

Service description	Product code	Peace charge code	
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).	RN\$V1MA	216	
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 (after hours).	RN\$V2MA	218	
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).	RN\$V1MT	220	
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 (anytime).	RN\$V2MT	222	
Meter maintenance			
Meter accuracy – physical testing required			
Testing for type 5 & 6 meters - customer requested meter accuracy testing - no CT	MIMT1MB	704	
Testing for type 5 & 6 meters - customer requested meter accuracy testing – CT	MIMT2MB	706	
Meter reading			
Check read	SRCR	400	
Final read	SRFR	402	
Transfer read	SRTR	404	

3.3 Connection services

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 services. The classification of connection services is provided in Table 3.3.

Table 3.3 – Form of control of connection services

Tariff classes and tariffs	Control mechanism
Pre - connection services (connection application services)	
Application services to assess connection application and making of compliant connection offer.	Quoted
Undertaking design for small customer or real estate development (sub- division) connection offer (excludes detailed design undertaken after a connection offer has been accepted).	Quoted
Carrying out planning studies and analysis relating to distribution	Quoted

Tariff classes and tariffs	Control mechanism
connection applications (including sub-transmission and dual function assets).	
Feasibility and concept scoping, including planning and design, for large customer connections.	Quoted
Negotiation services involved in negotiating a connection agreement.	Price cap / Quoted
Protection and power quality assessment prior to connection.	Price cap / Quoted
Application assessment, design review and audit real estate development (sub-division) connection services.	Price cap / Quoted
Pre - connection services (consultation services)	
Site inspection in order to determine nature of connection.	Price cap
Provision of site-specific connection information and advice for small or large customer connections.	Price cap
Preparation of preliminary designs and planning reports for small or large customer connection, including project scope and estimates.	Quoted
Connection services	
Design & construct of connection assets for large customers.	Quoted
Commissioning and energisation of Large Customer Connection assets to allow conveyance of electricity.	Quoted
Commissioning and energisation of connection assets for real estate development (sub-division)	Quoted
Augmenting the network to remove a constraint faced by an embedded generator	Quoted
Review, Inspection and Auditing of design and works carried out by an alternative service provider prior to energisation.	Quoted
Customer request a temporary connection for short term supply (includes metered and unmetered)	Price cap / Quoted
Post - connection services	
Supply abolishment	Price cap / Quoted
Rearrange connection assets at customer's request	Price cap / Quoted
Overhead service line replacement at customer's request (no material change to load)	Price cap
Auditing services – auditing/re-inspection of connection assets after energisation to network	Price cap / Quoted
Protection and power quality assessment	Quoted
Customer requested works to allow customer or contractor to work close.	Quoted
Temporary disconnections and reconnections (which may involve a line drop)	Price cap / Quoted
Customer initiated supply enhancement	Price cap

Tariff classes and tariffs	Control mechanism
Provision of connection services above minimum requirements.	Quoted
Customer consultation or appointment.	Price cap
Rectification of illegal connections: Work undertaken as a consequence of illegal connections resulting in damage to the network	Quoted
De-energisation	Price cap
Re-energisation	Price cap
Reading provided for an active site	Price cap
Attending loss of supply (customer at fault)	Price cap
Accreditation / certification	
Accreditation of design consultants	Price cap
Accreditation of alternative service providers (construction accreditation)	Price cap
Close out re-evaluation	Quoted
Management system re-Evaluation	Price cap
Shared assets authority	Price cap
Certification of non-approved materials to be used on the network	Quoted

Price capped services

Energex has established prices for connection price capped services in accordance with the control mechanism formula set out in the AER's Framework & Approach. These prices reflect efficient and prudent cost in providing these connection services based on existing and prospective service obligations.

The proposed prices for connection price capped services for 2017-18 are provided in a separate document, '2017-18 Energex Network Prices', available on the Energex website.¹⁴

_

¹⁴ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

Quoted services

Quoted services are services for which the nature and scope cannot be known in advance, irrespective of whether the service is customer-requested or an external event triggers the need for the service. The quoted product codes for connection services are included in Table 3.4 below.

Table 3.4 - Connections services quoted product codes

Quoted connection services category	Ellipse Product Code
Pre Connection Services - Connection Application Services	
Application services to assess connection application and making of compliant connection offer (Large Customer Connection).	P088
Undertaking design for small customer or real estate development (sub-division) connection offer (excludes detailed design undertaken after a connection offer has been accepted)	P006
Carrying out planning studies and analysis relating to distribution connection applications (including sub-transmission and dual function asset)	P088 LCC
Feasibility and concept scoping, including planning and design, for large customer connections.	P088
Negotiation services involved in negotiating a connection agreement - complex	P088 LCC
Protection and power quality assessment prior to connection - complex	P088 LCC
Application assessment, design review and audit real estate development (sub- division) connection services.	P006
Pre – connection services (pre connection consultation services)	
Preparation of preliminary designs and planning reports for large customer connection, including project scope and estimates	P088 LCC
Connection services – Large Customer Connections	
Design & construct of connection assets for large customers.	P088
Commissioning and energisation of large customer connection assets to allow conveyance of electricity.	P088
Design, construction, commissioning and energisation of connection assets for real estate development (sub-division)	P006
Augmenting the network to remove a constraint faced by an embedded generator	P091/P100
Review, inspection and auditing of design and works carried out by an alternative service provider prior to energisation.	P088
Customer requests a temporary connection for short term supply (includes metered and unmetered) - complex	P090
Post – connection services	
Supply abolishment - complex	P092
Rearrange connection assets at customers request - complex	P093

Quoted connection services category	Ellipse Product Code
Auditing services – auditing/re-inspection of connection assets after energisation to network – complex	P096
Protection and power quality assessment	P097
Customer requested work to allow the customer or contractor to work close	P011
Temporary disconnections/reconnections (which may involve a line drop) - HV	P011
Customer requested disconnection and reconnection of supply, coverage of LV mains and/or switching to allow customer/contractor to work close.	P011
Provision of connection services above minimum requirements	P094
Rectification of illegal connections: Work undertaken as a consequence of illegal connections resulting in damage to the network	P059
Accreditation / certification	
Close out re-evaluation	P088
Certification of non-approved materials to be used on the network	P088

3.4 Ancillary network services

The AER has created a group of services called ancillary network services to capture non-routine services provided to customers on an 'as needs' basis. Table 3.5 below sets out Energex's classification of ancillary network services by price cap or quoted depending on whether the scope of work is pre-defined or subject to variability.

Table 3.5 - Classification of ancillary services

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

Prices for price capped services

Energex has developed prices which reflect efficient and prudent costs in providing ancillary network services based on existing and prospective services. The proposed prices for ancillary price capped services for 2017-18 are provided in a separate document, '2017-18 Energex Network Prices', available on the Energex website.¹⁵

Quoted services

The quoted product codes for ancillary network services are included in Table 3.6 below.

Table 3.6 - Ancillary network services quoted product codes

Tubic die 7 memary network der viede queteu product deute	
Quoted ancillary network services category	Ellipse Product Code
Services provided in relation to a retailer of last resort (ROLR) event	
Retailer of last resort event	P061
Other recoverable works	
Customer requested provision of electricity network data requiring customised investigation, analysis or technical input	P044
Bundling (conversion) of cables carried out at the request of another party	P065
Provision of services to extend / augment the network, to make supply available for the connection of approved unmetered equipment, e.g. public telephones, streetlights, extension to the network to provide a point of supply for a billboard & city cycle.	P054
Rearrangement of assets	P051
Customer requested disconnection and reconnection of supply, coverage of LV mains and/or switching to allow customer/contractor to work close (other than in relation to connection assets)	P011
Assessment of parallel generator applications	P100
Witness testing	N/A
Overhead service connection – non-standard installation	P098

3.5 Type 6 Metering Services

Since 1 July 2015, Type 6 metering installations incur a metering services charge (MSC) that incorporates the ongoing maintenance, meter reading and meter data services. In addition auxiliary metering services are customer requested non routine metering services and are provided to individual customers on a user pays basis.

-25-

¹⁵ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

3.5.1 Metering Service Charge

Energex's revenue requirement for the MSC has been set out by the AER in the Final Decision. The MSC applicable to 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 Final 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 and tax
- Non-capital component operating expenditure.

The MSC is applied per SAC non-demand tariff with rates 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.

The daily metering services charges for 2017-18 are provided in a separate document, '2017-18 Energex Network Prices', available on the Energex website.¹⁶

3.5.2 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 installation, metering alterations, special meter reads, meter tests and instrument transformer tests. Energex's price schedule for auxiliary metering price capped services for 2017-18 is provided in a separate document, '2017-18 Energex Network Prices', available on the Energex website.¹⁷

-26-

¹⁶ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-Publications, or Pricing Publications page for business customers/pricing-publications.

¹⁷ Pricing Publications page for residential page for residential page for page for residential page.

¹⁷ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

The quoted product codes for auxiliary metering services are provided in Table 3.7 below.

Table 3.7 – Quoted auxiliary metering service Product Codes

Quoted auxiliary metering services category	Ellipse Product Code
Meter maintenance	
Replacement or removal or Type 5 or 6 meter instigated by a customer switching to a Non-Type 5 or 6 meter that is not covered by any other fee	P081
Meter data services	
Type 5-7 non standard metering data services	P053
Metering load control	
e.g. Install metering related load control (C3585)	C000
e.g. Remove local control relay or time clock	P066
e.g. Change load control relay channel at retailer, customer or other third part request, that is not a part of initial load control installation, nor part of standard asset maintenance or replacement	P071

3.5.3 Intra-period adjustments to ACS

On 1 December 2017, the AEMC's recommendations in the Power of Choice review will be implemented in Queensland. Under these new arrangements Energex will no longer be responsible for providing metering installations as they will become subject to contestability and will only provide metering services to existing regulated meters as long as they are in operation. As a result, in December 2017, a number of ACS services will be discontinued or have the metering provision component stripped out of the service with the remaining service components covering the services still performed by Energex. The revised ACS charges will be less than those approved by the AER as part of the pricing proposal process.

The amendments will be made and published prior to their commencement.

3.6 Public Lighting Services

The provision, construction and maintenance of public lighting assets, as well as emerging public lighting technologies and other public lighting services, are classified as a direct control services and further as an ACS under a price cap form of control.

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.
- Other (non-standard) and emerging public lighting services are a cost build up approach (for both price cap and quoted service).

Energex also performs ad hoc public lighting services at the request of customers, including provision of glare shield, vandal guards, luminaire replacement with aero screens and application assessment, design and audit. The classification of public lighting services is provided in Table 3.8.

Table 3.8 - Classification of public lighting services

Service group	Price cap / Quoted services
Provision, construction & maintenance of public lighting services	
Provision of glare shields, vandal guards, luminaire replacement with aero screens	Price cap / Quoted
Application assessment, design review and audit	Price cap / Quoted
Provision, construction and maintenance of new street lighting services	Quoted
Alteration, relocation, rearrangement or removal of existing street light assets and energy efficient retrofit	Quoted
A fee for the residual asset value of non-contributed public lights when removed from service before the end of their useful life at the request of the customer.	Quoted

The price schedule for public lighting price capped services for 2017-18 is provided in a separate document, '2017-18 Energex Network Prices', available on the Energex website.¹⁸

Quoted services

The quoted product codes for public lighting services are included in Table 3.9 below.

Table 3.9 - Quoted public lighting service Product Codes

Quoted public lighting services	Ellipse Product Code
Provision, construction and maintenance of public lighting	
Provision of glare shields, vandal guards, luminaire replacement with aero screens	P074
Application assessment, design review and audit	P006
Construction of new street lighting services (contributed)	P039
Alteration, repair, relocation, rearrangement or removal of existing street light assets and energy efficient retrofit	P079
A fee for the residual asset value of non-contributed public lights when removed from service before the end of their useful life at the	P052

¹⁸ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

request of the customer		
Emerging public lighting technology		
New public lighting technologies, including trials P079		

4 Other services

4.1 Other Business-2-Business services

Energex provides a number of services that have no upfront cost as the costs are incorporated in the building blocks for DUoS (as an SCS) and the metering service charge (as an ACS). These services are requested through the usual B2B communication channels.

A list of services with full descriptions and product codes is included in Appendix 1.

5 Assignment and re-assignment of customers to tariff classes and tariffs

If a customer's retailer does not specify its preferred network tariff in a New Connection B2B, or at any time thereafter, Energex will default the network tariff to what it considers to be the most appropriate tariff.

Energex assigns network tariffs/tariff class on the basis of one or more of the following factors:

- i. The nature and extent of their usage
- ii. The nature of their connection to the network
- iii. Whether remotely-read interval metering or other similar metering technology has been installed at the customer's premises based on a customer's classification (business or residential) and annual consumption (which may be estimated for new connections).

The full conditions associated with the application assignment or reassignment of Energex's tariffs and tariff classes can be found in the TSS available on Energex's website.¹⁹

_

¹⁹ Pricing Publications page for residential customers: https://www.energex.com.au/home/our-services/pricing-And-tariffs/business-customers/pricing-publications.

APPENDICES

Appendix 1 – Additional Business-to-Business codes

Energex provides a number of DUoS services which are requested through the usual B2B communication channels. A list of services with full description and product code is provided in the additional product code listing in Table A 1.

Table A 1 - Additional DUoS service B2B Product Codes

Category	Description	Product Code	Full description	Peace charge code
New Connections	U/G Perm Supply - CT BH	NCUP2MB	New underground connection. CT. BH.	100
	U/G Perm Supply - No CT BH	NCUP1MB	New underground connection. No CT. BH.	158
	U/G Perm Supply - CT AH	NCUP2MA	New underground connection. CT. AH.	106
	U/G Perm Supply - No CT AH	NCUP1MA	New underground connection. No CT. AH.	156
	U/G Perm Supply - CT Anytime	NCUP2MT	New underground connection. CT. Anytime.	118
	U/G Perm Supply - No CT Anytime	NCUP1MT	New underground connection. No CT. Anytime.	116
	O/H Perm Supply - CT BH	NCOP2MB	New overhead connection. CT. BH.	104
	O/H Perm Supply - No CT BH	NCOP1MB	New overhead connection. No CT. BH.	102
	O/H Perm Supply - CT AH	NCOP2MA	New overhead connection. CT. AH.	110
	O/H Perm Supply - No CT AH	NCOP1MA	New overhead connection. No CT. AH.	108
	O/H Perm Supply - CT Anytime	NCOP2MT	New overhead connection. CT. Anytime.	114
	O/H Perm Supply - No CT Anytime	NCOP1MT	New overhead connection. No CT. Anytime.	112
	Temp/Perm - CT BH	NCTP2MB	New temporary connection in permanent. CT. BH.	150

Category	Description	Product Code	Full description	Peace charge code
	Temp/Perm - No CT BH	NCTP1MB	New temporary connection in permanent. No CT. BH.	148
	Temp/Perm - CT AH	NCTP2MA	New temporary connection in permanent. CT. AH.	134
	Temp/Perm - No CT AH	NCTP1MA	New temporary connection in permanent. No CT. AH.	132
	Temp/Perm - CT Anytime	NCTP2MT	New temporary connection in permanent. CT. Anytime.	138
	Temp/Perm - No CT Anytime	NCTP1MT	New temporary connection in permanent. No CT. Anytime.	136
Unmetered Supply	UMS Connection Point Available	NCUMSC	New unmetered connection where connection point is available.	152
	UMS Connection Point Not Available	NCUMSCN	New unmetered connection where connection point is unavailable.	153
No Charge	No Charge	No Charge	No Charge	9999

In addition to ACS provided on a fee-for-service basis, Energex provides a number of services which are part of the Metering Services Charge (MSC) which are requested through the usual B2B communication channels. A list of services with full description and product code is provided in the additional product code listing in Table A 2.

Table A 2 – Additional MSC services Product Codes

Category	Description	Product Code	Full description	Peace charge code
Additions &	Remove Meter - CT	AARM2M	Adds & Alts: Remove meter. CT. BH	526
Alterations	Remove Meter - No CT	AARM1M	Adds & Alts: Remove meter. No CT. BH.	524
Meter	Tamper - CT B/H Only	MIT2MB	Investigate meter for tampering. CT. BH.	710
investigations	Tamper - No CT B/H Only	MIT1MB	Investigate meter for tampering. No CT. BH.	708

Appendix 2 – Glossary

Table A 3 – Acronyms and abbreviations

Abbreviation	Description			
ACS	Alternative Control Service			
AER	Australian Energy Regulator			
АН	After Hours			
ВН	Business Hours			
CAC	Connection Asset Customers			
Capex	Capital Expenditure			
СТ	Current transformer			
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			
EOO	Luminaires owned and operated by Energex			
FiT	Feed-in Tariff (Solar FiT) under the Queensland Solar Bonus Scheme			
G00	Luminaires gifted to Energex by a council and operated by Energex			
HV	High Voltage			
ICC	Individually Calculated Customers			
LCC	Large Customer Connection			
LV	Low Voltage			
MAB	Metering Asset Base			
NEM	National Electricity Market			
NER	National Electricity Rules (or Rules)			
NMI	National Meter Identifier			
NTC	Network Tariff Code			
NUoS	Network Use of System			
Opex	Operating and Maintenance Expenditure			
PV	Photovoltaic (Solar PV)			
Rules	National Electricity Rules (or NER)			
SAC	Standard Asset Customers			
SBS FiT	Queensland Government Solar Bonus Scheme			

Abbreviation	Description
SCS	Standard Control Service
Solar PV	Solar Photovoltaic
ToU	Time of Use

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
W	watt	W, kW, kWh, MW

Table A 5 – Units of measurement 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, kW, kWh

Table A 6 – Definitions of terminology throughout this document

Term	Abbreviation/ Acronym	Definition
After Hours	АН	Any time outside business hours.
Alternative Control Service	ACS	Customer specific or customer requested services. These services may also have potential for provision on a competitive basis rather than by the local DNSP.
Australian Energy Regulator	AER	The economic regulator of the NEM established under section 44AE of the Competition and Consumer Act 2010 (Commonwealth).
Business hours	ВН	8 am to 5 pm, Monday to Friday.
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.
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

Term	Abbreviation/ Acronym	Definition
		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:
		 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).
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).
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
Energy (or usage)		Refer to the definition of Usage below
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 Tariff Schedule, reference to the Final Determination refers to the 2015-2020 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.

Term	Abbreviation/ Acronym	Definition
Large customer classification		As per tariff class assignment process for customers with consumption greater than 100 MWh per year.
Large customer connection	LCC	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.
Low Voltage	LV	Refers to the sub-11 kV network
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.
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 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-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.
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

Term	Abbreviation/ Acronym	Definition
		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.
Pricing Proposal		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 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.
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 year		A specific year within the regulatory control period.
Shoulder period		All hours which are outside Peak and Off-peak periods.
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.
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 and connection services.
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.
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

Term	Abbreviation/ Acronym	Definition
		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.
Time of use	ToU	Refers to tariffs that vary according to the time of day at which the electricity is consumed.
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.
Usage (or 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).
Usage 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.