Chapter 5: Controls on revenue and prices for Alternative Control Services

Introduction and summary of changes

Alternative Control Services are also subject to direct controls on revenues and price. However, the AER has more flexibility in how it calculates and controls prices compared to Standard Control Services.

Many of these services are requested by, or relate to, a specific customer, and therefore the customer directly benefiting from the service is either charged a fixed fee or a quoted price for the service. Other services relate to a particular asset or class of assets that can be distinguished from the meshed distribution network (metering and public lighting services).

We have revised our approach to Default Metering Services in light of changes proposed by the AER in its Preliminary Determination. In particular, we have proposed capital and non-capital annual metering charges. We have also introduced new fee based services to recover the costs of installing and providing Type 5 and 6 meters.

Finally, Ergon Energy has updated some of the inputs used to calculate our fee based and quoted services.

Customer benefits

The changes to the way we plan and operate our network, as well as the efficiencies and effectiveness we have been able to achieve as an organisation over recent years, will also deliver positive price outcomes across our Alternative Control Services.

In the public lighting area, we are delivering a real decrease in prices in 2015-16, and we're making it easier to transition to new energy efficient public lighting technologies.

Transparent, cost reflective prices for Alternative Control Services will also facilitate customer choice and control.

Our revised proposal delivers lower prices for the majority of fee based and quoted services in 2015-16; both compared to our October Regulatory Proposal and the AER's Preliminary Determination. This has a flow on effect to prices in the remaining years of the regulatory control period.

5. Alternative Control Services

5.1 Background

Consistent with the Framework and Approach Paper, the AER's Preliminary Determination classified the following services as Alternative Control Services:

- Pre-connection Services
- Connection Services
- Post Connection Services
- Metering Services
- Ancillary Network Services
- Public Lighting Services.

The Preliminary Determination sets out the form of control that applies to each of these Alternative Control Services, as well as the formula that the AER proposes to use to give effect to the form of control.

This chapter sets out for each Alternative Control Service:

- the form of control to be applied
- how Ergon Energy proposes to give effect to the form of control
- how the control mechanism(s) will be applied under clause 6.8.2(c)(3) of the NER
- how compliance with the control mechanism will be demonstrated under clause 6.12.1(13) of the NER.

5.2 Form of control mechanism

The AER determined that it would apply a cap on the prices of individual services for all of our Alternative Control Services, which is consistent with the form of control applied in the regulatory control period 2010-15. The AER considers this approach is "more suitable than other control mechanisms for delivering cost reflective prices".[68]

5.3 Basis of the control mechanism

In its Preliminary Determination, the AER applied a limited building block approach for Default Metering Services and Public Lighting Services. For all other Alternative Control Services, the AER has applied a formula-based approach, which results in either a fixed fee or quoted price.

Ergon Energy has proposed the basis of the control mechanism which we consider should apply for each service in the following sections.

[68] AER (2014a), Ibid, p67.

5.4 Formulae for Alternative Control Services

Ergon Energy generally accepts the formulae proposed by the AER for Alternative Control Services. We note our revised Regulatory Proposal contains different X-factors (where applicable) to those determined by the AER. We have also made minor amendments to the formula descriptions. Our approach to classifying upfront capital charges as fee based services also means the Default Metering Services formula no longer applies to the installation and provision of Type 5 and 6 meters on or after 1 July 2015.

Our submissions on Alternative Control Services provide further details.

The following sections set out the formulae to apply to Alternative Control Services. Further details on the calculation of input prices and the application of the formulae are provided in our supporting documents:

- *04.01.00 – (Revised) Compliance with Control Mechanisms*
- *05.01.01 – (Revised) Public Lighting Services Summary*
- *05.03.01 – (Revised) Default Metering Services Summary*
- *05.05.01 – (Revised) Inputs and Assumptions for Alternative Control Services*.

5.4.1 Quoted services

Ergon Energy proposes the following formula to determine the cost build-up of services that are priced on a 'quoted' basis:

$$Price = Labour + Contractor\ Services + Materials + Capital\ Allowance$$

Where:

Labour consists of all labour costs directly incurred in the provision of the service which may include labour on costs, fleet on costs and overheads. From 2016-17, base labour is escalated annually by (1 - X_i^t)(1+ΔCPI_t). Where:

X_i^t is the X-factor for service i in year t, as determined for fee based services

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from December in year t–2 to December in year t–1. For example, for the 2016-17 year, t–2 is December 2014 and t–1 is December 2015 and in the 2017-18 year, t–2 is December 2015 and t–1 is December 2016 and so on.

Contractor services reflect all costs associated with the use of external labour including overheads and any direct costs incurred. The contractor services charge applies the rates under existing contractual arrangements. Direct costs incurred are passed on to the customer.

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

Capital allowance represents a return on and return of capital for non-system assets.[69]

5.4.2 Fee based services

Consistent with the Preliminary Determination and our initial proposal, Ergon Energy has used the quoted services formula to establish initial prices (or base prices) for each fee based service in the first year of the regulatory control period 2015-20 (i.e. 2015-16). For the majority of services, these initial prices reflect the prices approved by the AER in our 2015-16 Pricing Proposal. [70]

From 2016-17, Ergon Energy proposes the following formula to give effect to the price cap for fee based services:

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

Where:

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

p_i^t is the cap on the price of service i in year t

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from December in year t–2 to December in year t–1. For example, for the 2016-17 year, t–2 is December 2014 and t–1 is December 2015 and in the 2017-18 year, t–2 is December 2015 and t–1 is December 2016 and so on

X_i^t is the X-factor for service i in year t

A_i^t is an adjustment factor for residual charges when customers choose to replace assets before the end of their economic life. For fee based services, the value for A is zero.

Ergon Energy considers that when setting prices for fee based services in 2016-17, p_i^{t-1} are the prices approved by the AER in the 2015-16 Pricing Proposal (where applicable).

5.4.3 Default Metering Services

Consistent with approach taken in the AER's Preliminary Determination, Ergon Energy has set out a schedule of prices for the first year of the regulatory control period 2015-20 for Default Metering Services (i.e. 2015-16).

From 2016-17, Ergon Energy proposes the following formula to give effect to the price cap for Default Metering Services:

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

Where:

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

p_i^t is the cap on the price of service i in year t

[69] Ergon Energy has included depreciation for vehicles in the fleet on-cost, which forms part of the labour cost component.

[70] Ergon Energy proposed different prices in our 2015-16 Pricing Proposal compared to Table 16.20 of the Preliminary Determination to reflect changes to our overhead rates and the inflation rate, and an oversight contained in the Preliminary Determination regarding the labour on-cost rate applying to the administration labour rate. The AER approved the Pricing Proposal on 12 June 2015. Our revised Regulatory Proposal contains eight new fee based services relating to the installation and provision of Type 5 and 6 meters which were not part of our 2015-16 Pricing Proposal.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from December in year t–2 to December in year t–1. For example, for the 2016-17 year, t–2 is December 2014 and t–1 is December 2015 and in the 2017-18 year, t–2 is December 2015 and t–1 is December 2016 and so on

X_i^t is the X-factor for service i in year t

A_i^t is zero.

5.4.4 Public Lighting Services

Consistent with approach taken in the AER's Preliminary Determination, Ergon Energy has set out a schedule of prices for the first year of the regulatory control period 2015-20 for Public Lighting Services (i.e. 2015-17).

From 2016-17, Ergon Energy proposes the following formula to give effect to the price cap for Public Lighting Services:

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

Where:

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

p_i^t is the cap on the price of service i in year t

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from December in year t–2 to December in year t–1. For example, for the 2016-17 year, t–2 is December 2014 and t–1 is December 2015 and in the 2017-18 year, t–2 is December 2015 and t–1 is December 2016 and so on

X_i^t is the X-factor for service i in year t. There are no X-factors for public lighting[71]

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

5.5 Default Metering Services

Ergon Energy does not agree with the approach adopted by the AER in relation to annual metering services. Specifically, we consider that an exit fee (with accelerated depreciation) is the most equitable mechanism for recovering residual metering capital costs. Despite this, we have updated our revised Regulatory Proposal to include annual capital charges in line with the Preliminary Determination. Our proposal has also been amended to reflect our latest forecasts in relation to the underlying building blocks such as the allowed rate of return.

In addition, Ergon Energy is concerned that the AER has not adequately consulted with customers on the imposition of the upfront capital charge, nor has it appropriately considered the impact on customers. Ergon Energy maintains that the cost of new or upgraded meters should be included in the annual metering service charges. In the event the AER dismisses this concern, we have proposed eight new fee based services and a new quoted service in lieu of the upfront capital charges proposed by the AER.

Our submission, Metering – Response, provides further details.

[71] X-factors may apply if the AER decides to annually update the return on debt, consistent with the approach taken for Standard Control Services.

5.5.1 Overview

For the first time, Ergon Energy will have separate charges for the installation, provision, maintenance, reading and data services of basic electricity meters for small to medium business and residential customers. These are the meters that measure the electricity that goes into a property, and which allow electricity retailers to bill their customers.

Ergon Energy has grouped these services based on our proposed pricing approach. Specifically, we have:

- Default Metering Services:
  - Type 5 and 6 meter installation and provision (before 1 July 2015)
  - Type 5 and 6 meter installation and provision (on or after 1 July 2015), where the replacement meter is initiated by Ergon Energy
  - Type 5 and 6 metering maintenance, reading and data services.
- Type 5 and 6 meter installation and provision (on or after 1 July 2015), where the new or upgraded meter is required as a result of a customer request.

For the latter, Ergon Energy will recover our costs of customer-initiated meter provision through various fixed fees. Further information on how these fees are calculated is discussed in Section 5.7.3.

The costs of Default Metering Services will be recovered via capital and non-capital charges which will be billed on a daily basis and bundled with other distribution charges to the retailer as part of the usual billing process. The daily capital and non-capital charges we are proposing for Default Metering Services in the regulatory control period 2015-20 are outlined in Table 25.

Table 25: Daily metering charges, by service, 2015-20

Default Metering Services $/day (nominal)		2015-16	2016-17	2017-18	2018-19	2019-20
Primary Service	Non-capital	0.067	0.138	0.142	0.146	0.150
	Capital	0.018	0.093	0.096	0.099	0.101
Controlled load	Non-capital	0.025	0.051	0.052	0.054	0.055
	Capital	0.007	0.034	0.035	0.036	0.037
Solar	Non-capital	0.017	0.034	0.035	0.036	0.037
	Capital	0.004	0.023	0.024	0.025	0.025

Our approach to the calculation of these charges is outlined in the sections below. In summary:

- the costs of our Default Metering Services relate to specific activities set out in our Classification Proposal
- the AER has determined that the form of control will be a cap on the price of each service per annum. However, where possible, we have adopted an approach to expenditure forecasting and revenue calculation that is consistent with our approach for Standard Control Services. This includes:
  - adaptation of the same models for the calculation of the revenue requirement (i.e. PTRM and RFM)

- use of the same key input parameters for the revenue calculation including the rate of return, tax and CPI
- consistency in the approach to forecasting operating expenditure (base step trend (BST)) and application of overhead allocation in accordance with the Cost Allocation Method (CAM)
- forecasting techniques for growth and replacement in meter assets that are consistent with Standard Control Service Asset Renewal and Customer Connection Initiated Capital Works

- creating an opening asset value based on the gross replacement costs of a modern equivalent asset that has been optimised for a particular purpose and adjusted for depreciation
- applying depreciation of a newly installed meter to reflect the economic life of a meter in a competitive environment (three years) while accelerating the depreciation of sunk default metering assets to five years
- prices established based on the required revenue each year, the cost allocation weighting between primary, controlled load and solar metering services, and the forecast number of services each year.

Ergon Energy proposes that the AER account for differences between 2015-16 prices approved in its Preliminary Determination and those approved in the Substitute Determination via a 'true-up' mechanism which would adjust the prices in the remaining years of the regulatory control period 2015-20.

As Ergon Energy has taken an approach to Default Metering Services that is largely consistent with Standard Control Services, we have applied a true-up mechanism to Default Metering Services through the use of X-factors. That is, X-factors are applied in order to smooth the ARR over the regulatory control period. This is normally achieved by making a Year 1 adjustment, and holding the smoothing adjustments in Years 2 to 5 at a constant rate (i.e. a constant 'X').

In Ergon Energy's case, the X-factors can only be adjusted for the remaining four years of the regulatory control period (i.e. 2016-17 to 2019-20). This is because the prices for 2015-16 have already been established through the annual Pricing Proposal process based on the AER's Preliminary Determination. Therefore, Ergon Energy has made an adjustment in Year 2 and applied a constant X over the remaining years of the regulatory control period 2015-20. Our submission, *Metering – Response*, provides further details.

5.5.2 Our Default Metering Services Summary document

This section of the Regulatory Proposal provides a brief outline of the approach we have taken with Default Metering Services. Our supporting document *05.03.01 – (Revised) Default Metering Services Summary* provides important details around our approach to the calculation of required revenues and expected prices for our Default Metering Services. This includes:

- our regulatory framework
- capital expenditure requirements
- operating expenditure requirements
- calculation of required revenues

- calculation of meter tariffs and prices.

Additional materials supporting the above inputs and methodologies are also referenced in the summary document.

5.5.3 Nature of services

Default Metering Services are only a small part of activities that are covered by the metering services banner. In the AER's Preliminary Determination, metering services were grouped and classified in the manner set out in Table 26.[72]

Table 26: Classification of metering services, 2015-20

Service group	Description	Classification	Section in this Regulatory Proposal
Type 1 to 4 metering services	These meters record detailed energy usage and have a number of other capabilities, the most significant being remote communication facilities. These meters are mostly provided for larger users in the competitive market.	Unregulated	Not covered
Type 5 and 6 metering services	Type 5 meters record energy data in 30 minute intervals and are manually read (typically every three months). A Type 6 meter is a 'general purpose' meter that records accumulated energy consumption and is also manually read. Ergon Energy is the only provider of Type 5 and 6 metering services in our network area.[73] Our service provision is regulated by Queensland-specific requirements contained in the Australian Energy Market Operator's (AEMO) Metrology Procedure.[74] These requirements and obligations differ to those in other jurisdictions and our costs will reflect these differences.	Alternative Control Services	This section (5.5) and Section 5.7
Type 7 metering services	Type 7 services apply where the NER specifies that a metering installation does not require a meter. Examples of such instances include street, traffic, park and community lighting meters.	Standard Control Services	Appendix A and B
Auxiliary Metering Services	These are non-routine metering services which Ergon Energy provides on request, such as Special Meter Reads.	Alternative Control Services	Section 5.7
Network Services	There are also some metering related services associated with the provision of network services to our customers (e.g. services related to load control and meter data management).	Standard Control Services	Appendix A and B

[72] Our supporting document *02.01.01 – (Revised) Classification Proposal* provides more detail on how different types of activities are grouped and classified in order to regulate the prices we can charge customers for our services.

[73] It should be noted that due to jurisdictional restrictions presently in place in Queensland, Ergon Energy does not currently provide Type 5 meters.

[74] AEMO (2012), *Metrology Procedure: Part A National Electricity Market*, July 2012.

5.5.4 Application of the control mechanism

Our supporting document *04.01.00 – (Revised) Compliance with Control Mechanisms* notes that, to derive prices for Default Metering Services, Ergon Energy will calculate a revenue allowance using a 'limited building block' approach consistent with Part C of Chapter 6 of the NER as well as calculations set out in the AER's PTRM. Where appropriate we have also sought to apply similar approaches to forecasting, such as the use of BST modelling for operating expenditure forecasts.

The limited building block approach is used to determine allowable revenues, which is then converted into unit charges that are subject to a price cap. Ergon Energy's proposed annual Default Metering Service charges have been set based on the required revenue each year, the cost allocation weighting between primary, controlled load and solar metering services, and the forecast number of services each year.

5.5.5 Building blocks for Default Metering Services

Table 27 sets out the proposed ARR for Default Metering Services for the regulatory control period 2015-20.

Table 27: Annual Revenue Requirement for Default Metering Services, 2015-20

$m (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20
Return on capital	4.56	4.93	4.80	4.39	3.46
Return of capital	11.06	17.88	22.17	28.63	29.89
Operating expenditure	34.79	37.30	39.79	41.87	44.01
Corporate income tax	2.84	4.24	5.76	7.38	7.42
Proposed Annual Revenue Requirement	**53.26**	**64.35**	**72.52**	**82.27**	**84.77**

The proposed ARR for Default Metering Services was calculated using the PTRM, which has been provided in our supporting document *05.04.07 – (Revised) Default Metering Services PTRM*.

Key assumptions

The proposed ARR for Default Metering Services was based on the key inputs and assumptions, and forecasts set out in Table 28.

Table 28: Ergon Energy's forecast Regulatory Asset Base for Default Metering Services, 2015-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Meters installed					
Meters (number)	1,292,638	1,323,884	1,354,734	1,385,136	1,415,059
Asset Base ($m, nominal)					
Opening RAB	61.60	66.57	64.79	59.31	46.68
Capital expenditure (inc. capital contributions, net of disposals)	16.03	16.10	16.69	16.00	16.15
Regulatory depreciation	(11.06)	(17.88)	(22.17)	(28.63)	(29.89)
Closing RAB	**66.57**	**64.79**	**59.31**	**46.68**	**32.94**

5.5.6 Pricing for Default Metering Services

Ergon Energy has developed the following types of Default Metering Services charges to recover the ARR from customers:

- annual metering service charges for the primary metering service
- supplementary charges for *each* secondary controlled load
- supplementary charges for solar connections.

There are capital charges and non-capital charges under each of these categories. Capital charges recover costs associated with the provision and installation of meters prior to 1 July 2015. The non-capital charge recovers the costs of metering maintenance, meter reading and data services.

Indicative prices

Table 29 sets out the indicative prices for our Default Metering Services for each year of the regulatory control period 2015-20, as required under clause 6.8.2(c)(4) of the NER. These are expressed as simplified unit charges ($ per unit).

Table 29: Annual indicative prices for Default Metering Services, by service, 2015-20[75]

Default Metering Services $/unit (real 2014-15)		2015-16	2016-17	2017-18	2018-19	2019-20
Primary Service	Non-capital	24.44	50.27	51.74	53.27	54.86
	Capital	6.49	33.96	34.96	35.99	37.07
Controlled load	Non-capital	8.99	18.48	19.02	19.58	20.17
	Capital	2.39	12.49	12.85	13.23	13.63
Solar	Non-capital	6.08	12.50	12.86	13.25	13.64
	Capital	1.61	8.45	8.69	8.95	9.22

[75] These prices reflect the application of the true-up mechanism described above.

5.6 Public Lighting Services

Ergon Energy generally accepts the AER's preliminary decision on Public Lighting Services. We have revised our Regulatory Proposal to reflect our latest forecast of customer numbers, as well as updates to the underlying building block components, such as the allowed rate of return.

5.6.1 Overview

Ergon Energy manages an asset base of more than 150,000 public lights[76] that illuminate roads managed by a local government authority, or the Queensland Government's Department of Transport and Main Roads.

These lights may be:

- owned and operated by Ergon Energy (EO&O)
- gifted to Ergon Energy and thereafter maintained and operated by us (G&EO)
- customer owned and operated by someone other than Ergon Energy.

Charges to customers receiving Public Lighting Services will be in the form of a daily fixed charge. The daily charges we are proposing for Public Lighting Services in the regulatory control period 2015-20 are outlined in Table 30.

Table 30: Daily public lighting charges, 2015-20

Public Lighting Services $/light/day (real 2014-15)	2015-16	2016-17	2017-18	2018-19	2019-20
EO&O - Major	0.9997	0.9826	0.9826	0.9826	0.9826
EO&O - Minor	0.4037	0.4570	0.4570	0.4570	0.4570
G&EO - Major	0.5956	0.5925	0.5925	0.5925	0.5925
G&EO - Minor	0.2645	0.3005	0.3005	0.3006	0.3006

Ergon Energy proposes that the AER account for differences between 2015-16 prices approved in the Preliminary Determination and those approved in the Substitute Determination via a true-up mechanism which would adjust the prices in the remaining years of the regulatory control period 2015-20. Ergon Energy has adopted this approach in setting the charges outlined in Table 30.

Our approach to the calculation of these charges is outlined in the sections below. In summary:

- the costs of our Public Lighting Services relate to activities grouped by the AER in its Framework and Approach Paper and the Preliminary Determination
- the AER has determined that the form of control will be a cap on the price of each individual service. However, where possible, we have adopted an approach to expenditure forecasting

[76] 'Street light' and 'public light' are used interchangeably in this Regulatory Proposal.

and revenue calculation that is consistent with our approach for Standard Control Services. This includes:

  - adaptation of the same models for the calculation of the revenue requirement (i.e. PTRM and RFM)
  - use of the same key input parameters for the revenue calculation including the rate of return, tax and CPI
  - consistency in the approach to forecasting operating expenditure (BST) and application of overhead allocation in accordance with the CAM

- prices established based on the required revenue each year, the type of public light (Major or Minor) and ownership basis.

5.6.2 Our Public Lighting Services Summary document

This section of the Regulatory Proposal provides a brief outline of the approach we have taken with Public Lighting Services. Our supporting document *05.01.01 – (Revised) Public Lighting Services Summary* provides important details around our approach to the calculation of required revenues and expected prices for our Public Lighting Services. This includes:

- our regulatory framework
- capital expenditure requirements
- operating expenditure requirements
- calculation of required revenues
- calculation of proposed public lighting prices.

Additional materials supporting the above inputs and methodologies are also referenced in the summary document.

5.6.3 Nature of the services

If a public light is owned by Ergon Energy, the efficient costs of owning and maintaining the asset are charged to customers as a public lighting charge. Public Lighting Services include:

- the provision, construction and maintenance of public lighting assets
- emerging public lighting technology.

There are various cost components in supplying energy to a light, as summarised in Figure 7.

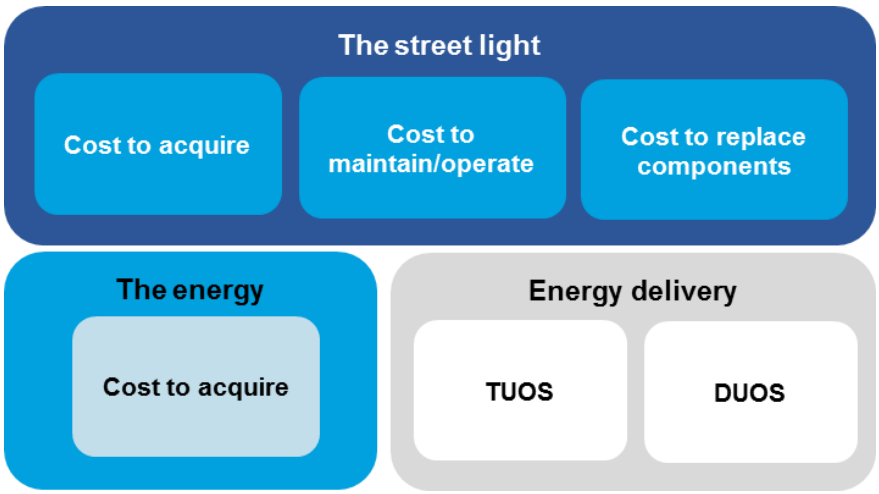

Figure 7: Cost components of public lighting

The street light is the equipment that directly provides the public lighting service. It includes a luminaire, lamp and a photoelectric cell or control device.

The energy is the electricity that powers the street light. Energy costs relate to the retailer.

Energy delivery consists of the services that convey electricity from the source of generation to the street light – that is, the TUOS and DUOS charges.

This section of the Regulatory Proposal focuses on the **street light** aspect only. The costs associated with this aspect are recovered as Alternative Control Service charges.

Our proposal on public lighting charges comes at a time of transition for the users of our public lighting services. Up until 1 July 2014, all public lighting Alternative Control Service charges[77] were borne by the Queensland Government as part of the Community Service Obligation. From that date, 10% of the current Alternative Control Service charge has been borne by customers. The Queensland Government has announced its intention that all costs will be recovered from customers in future – giving consideration to customer needs. The timetable for this is not known.

In response we have undertaken significant engagement on this area of our service over the last 12-18 months, resulting in our identification of three clear imperatives for delivery to customers:

- the ongoing importance of public lighting to the safety of the public as motorists and pedestrians
- the completion of the state-wide audit and the associated development of the LightMap software will provide Ergon Energy and our public lighting customers with a system framework for efficiently managing public lighting assets
- recognition and evaluation of the capacity for light emitting diode (LED) based technology to reduce public lighting costs in a number of ways. LED technology has improved rapidly over the past five years to the point it is starting to be used in mass deployment programs. In the local context, a number of technical, regulatory and financial barriers need to be worked through.

[77] With the exception of removal/relocation of Ergon Energy owned public lighting assets.

5.6.4 Application of the control mechanism

Our supporting document *04.01.00 – (Revised) Compliance with Control Mechanisms* notes that Ergon Energy will calculate a revenue allowance using approaches consistent with Part C of Chapter 6 of the NER as well as calculations set out in the AER's PTRM. Where appropriate we have also sought to apply similar approaches to forecasting, such as the use of BST modelling for operating expenditure forecasts.

The limited building block approach is used to determine allowable revenues, which is then converted into unit charges that are subject to a price cap.

5.6.5 Building blocks for Public Lighting Services

Table 31 sets out the proposed ARR for Public Lighting Services for the regulatory control period 2015-20.

Table 31: Annual Revenue Requirement for Public Lighting Services, 2015-20

$m (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20
Return on capital	5.75	6.26	6.60	7.00	7.41
Return of capital	4.87	6.68	6.06	6.73	7.45
Operating expenditure	12.50	13.35	14.18	14.87	15.60
Corporate income tax	4.31	4.45	4.51	4.50	4.48
Proposed Annual Revenue Requirement	**27.43**	**30.74**	**31.35**	**33.10**	**34.94**

The proposed ARR for Public Lighting Services was calculated using the PTRM, which has been provided in our supporting document *05.02.03 – (Revised) Public Lighting Services PTRM*.

Key assumptions

The proposed ARR for Public Lighting Services was based on the key assumptions and forecast set out in Table 32.

Table 32: Assumptions supporting the revenue calculations for Public Lighting Services, 2015-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Connections					
Public Lighting (number)					
Ergon Energy owned & operated	90,733	91,416	92,098	92,780	93,463
Gifted & Ergon Energy operated	52,335	53,985	55,635	57,285	58,935
Growth (% per annum)	1.70%	1.60%	1.60%	1.60%	1.60%
Asset Base ($m, nominal)					
Opening RAB	77.57	84.50	89.10	94.53	100.05

	2015-16	2016-17	2017-18	2018-19	2019-20
Capital expenditure (inc. capital contributions, net of disposals)	11.80	11.29	11.49	12.25	13.44
Regulatory depreciation	(4.87)	(6.68)	(6.06)	(6.73)	(7.45)
Closing RAB	**84.50**	**89.10**	**94.53**	**100.05**	**106.04**

LED Transition

Public lighting customers are increasingly requesting the introduction of more efficient lighting technologies, particularly LED technology. Ergon Energy considers that, based on international evidence and our own involvement in LED trials, the future technology for public lighting is almost certainly going to be LED. To enable a transitional pathway to this future for our customers, Ergon Energy proposes the following approach:

- progressing regulatory, technical and customer engagement to allow LED to be introduced for new public lighting installations
- specific provision for the conversion of targeted existing public lighting to LED technology with the sunk cost of assets replaced spread across all public lighting customers through the daily charge
- flexibility for customers to adopt LED technology above and beyond the funded LED conversion program.

5.6.6 Pricing for Public Lighting Services

For the regulatory control period 2010-15, the AER approved a standard price for both lights owned by Ergon Energy and those gifted to Ergon Energy by or on behalf of customers. The only pricing distinction made during the regulatory control period 2010-15 was between major and minor public lights.

With customers now bearing a portion of the Alternative Control Service charge and the intention that they will bear all of the cost, Ergon Energy recognises the obligation to propose different prices where there is a material variation in the cost.

For the regulatory control period 2015-20, Ergon Energy proposes a price structure as follows:

- EO&O
  - Major
  - Minor
- G&EO
  - Major
  - Minor.

Exit fee

In support of the LED transition program, Ergon Energy proposes to establish an exit fee payable when public lights are scrapped before the end of their useful operational life.

If public lights are transitioned under the LED transition program the exit fee will be funded through the allowance made in the revenue requirement. If a public lighting customer seeks to convert a large number of public lights outside of the LED transition program, the customer will be required to pay the exit fee.

The proposed fees in 2015-16 are set out in Table 33.

Table 33: Exit fees, 2015-16 ($ nominal)

Public lighting category	Exit fee
EO&O - Major	$1,390
EO&O - Minor	$840
G&EO - Major	$230
G&EO - Minor	$195

Note: an exit fee is proposed for G&EO lights because Ergon Energy incurs refurbishment capital expenditure in respect of these assets.

5.7 Fee based and quoted services

Ergon Energy generally accepts the AER's preliminary decision on fee based and quoted services. However, we seek clarification on a number of matters.

Our revised Regulatory Proposal has been updated to reflect prices approved by the AER in our 2015-16 Pricing Proposal and changes to underlying inputs (such as inflation and escalators) in later years. We have also introduced new fee based services relating to the installation and provision of Type 5 and 6 meters.

Our submission, Alternative Control Services (Other) – Response, provides further detail on these changes.

5.7.1 Nature of the services

Table 34 sets out the other services which we are proposing should be classified as Alternative Control Services in the regulatory control period 2015-20 and the specific services within each grouping.[78]

Table 34: Fee based and quoted services, 2015-20

Service grouping	Services	Service description
Pre-connection Services	Connection application services	Services associated with assessing a connection application, making a connection offer and negotiating offer acceptance
	Pre-connection consultation services	Additional support services provided by Ergon Energy (on request) during connection enquiry and connection application (other than General Connection Enquiry Services and Connection Application Services). They generally relate to services which require a customised or site-specific response and/or are available contestably

[78] For further information on the individual services refer to *02.01.01 – (Revised) Classification Proposal*.

Service grouping	Services	Service description
Connection Services	Major customer connections	Design and construction of connection assets for major customers
	Commissioning and energisation of major customer connections	Commissioning and energisation of major customer connection assets to allow conveyance of electricity, and the inspection and testing of connection assets
	Real estate development connection	Design, construction, commissioning and energisation of connection assets for real estate developments
	Removal of network constraint for embedded generator	Augmenting the network to remove a constraint faced by an embedded generator
	Temporary connections	Relates to situations where a customer requests a temporary connection for short term supply (e.g. blood bank vans, school fetes etc.)
Post Connection Services	Connection management services (post connection)	Work initiated by a customer which is specific to a connection point
	Accreditation of alternative service providers and approval of their designs, works and materials	As per service
Metering Services	Auxiliary Metering Services	Non-routine metering services such as additions and alterations, special meter reads, meter reconfiguring, meter inspection and investigation, and other non-standard metering services
	Type 5 and 6 meter installation and provision (on or after 1 July 2015), where the new or upgraded meter is required as a result of a customer request	On site connection of a new Type 5 or 6 meter at a customer's premises, and on site connection of an upgraded Type 5 or 6 meter at a customer's premises where the customer initiates the upgrade
Ancillary Network Services	Services provided in relation to a Retailer of Last Resort (ROLR) event	As per service
	Other recoverable works	Works initiated by a customer that are not covered by another service and are not required for the efficient management of the network, or to satisfy distributor purposes or obligations
Public Lighting Services	Provision, construction and maintenance of public lighting	Removal/rearrangement of public lighting assets.

5.7.2 Application of the control mechanism

The AER has proposed to set prices based on the estimated cost of providing each service.

For some services, prices will be determined on a quoted basis (i.e. 'quoted services'). This means the prices are based on several types and quantities of inputs which vary depending on the service requested. Prices for other services will be charged on a fixed fee basis (i.e. 'fee based services').

The first step in determining prices is to identify which services will be priced on a quoted basis versus a fixed fee basis. Table 35 provides a summary of our proposed pricing approach for each service grouping.

Table 35: Proposed approach to pricing of other Alternative Control Services, 2015-20

Service grouping	Services	Pricing approach
Pre-connection Services	Connection application services	Fee based / Quoted
	Pre-connection consultation services	Quoted
Connection Services	Large customer connections	Quoted
	Commissioning and energisation of large customer connections	Quoted
	Real estate development connection	Quoted
	Removal of network constraint for embedded generator	Quoted
	Temporary connections	Fee based
Post Connection Services	Connection management services (post connection)	Fee based / Quoted
	Accreditation of alternative service providers and approval of their designs, works and materials	Fee based / Quoted
Metering Services	Auxiliary Metering Services	Quoted
	Type 5 and 6 meter installation and provision (on or after 1 July 2015), where the new or upgraded meter is required as a result of a customer request	Fee based / Quoted
Ancillary Network Services	Services provided in relation to a ROLR event	Quoted
	Other recoverable works	Fee based / Quoted

Once this distinction is made, the prices for each service will be calculated in accordance with the proposed formulae (see Section 5.4). Actual prices for fee based services and example prices for quoted services will be provided in our annual Pricing Proposals.

5.7.3 Fee based services

There are a number of one-off services which Ergon Energy undertakes at the request of identifiable customer or retailer which are relatively standard in nature (e.g. de-energisations and re-energisations). This means the costs of providing the service can be assessed in advance of the service being requested.

Ergon Energy proposes to adopt an approach consistent with the regulatory control period 2010-15 in determining prices for fee based services. We will charge for:

- the cost of labour by applying labour rates previously approved by the AER in 2014-15 (escalated annually).[79] The cost of labour includes fleet on-costs and labour on-costs, which comprise the costs associated with payroll tax, superannuation, annual leave entitlements, sick leave entitlements, statutory holidays (special leave) and worker's compensation. The labour on-cost rates will be calculated annually. Overheads will also be calculated annually in accordance with Ergon Energy's CAM

[79] Except for the administration labour rate. Ergon Energy has adopted the rate set out in the AER's Preliminary Determination.

- the costs of materials by applying Ergon Energy's models based on the materials used in the provision of each individual fee based service (where relevant). These costs are obtained from a combination of our supply system, period contract rates (where available), suppliers and other third party organisations. For materials held in stock, a materials on-cost will also be applied. This rate will be calculated annually. Overheads will also be calculated annually in accordance with the CAM
- the capital costs associated with fleet[80] and other non-system assets, by calculating an amount in accordance with the value of these assets used in the provision of fee based services and quoted services
- the Goods and Services Tax (GST) in accordance with relevant legislation.

Further information on our approach to determining prices for fee based services is provided in our supporting document *05.05.01 – (Revised) Inputs and assumptions for Alternative Control Services.*

Table 36 sets out the indicative prices for our fee based services for each year of the regulatory control period 2015-20, as required by clause 6.8.2(c)(4) of the NER. Prices for 2015-16 were approved by the AER in the 2015-16 Pricing Proposal, with the exception of the "Install new or replacement meter" services which are new fee based services.

Table 36: Indicative prices for fee based services, by service 2015-20

Pricing category $/unit (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20
Application fee - Basic or standard connection	852.23	887.61	899.80	923.81	948.92
Application fee - Basic or standard connection - Micro-embedded generators	46.63	47.96	49.32	50.72	52.16
Application fee - Basic or standard connection - Micro-embedded generators - Technical assessment required	211.71	220.92	223.42	229.31	235.51
Application fee - Real estate development connection	892.30	929.60	942.07	967.17	993.44
Protection and Power Quality assessment prior to connection	1,320.64	1,383.71	1,392.79	1,428.72	1,466.80
Temporary connection, not in permanent position - single phase metered - urban/short rural feeders	561.13	587.58	591.30	606.26	622.15
Temporary connection, not in permanent position - single phase metered - long rural/isolated feeders	897.80	940.13	946.08	970.01	995.43
Temporary connection, not in permanent position - multi phase metered - urban/short rural feeders	561.13	587.58	591.30	606.26	622.15
Temporary connection, not in permanent position - multi phase metered - long rural/isolated feeders	897.80	940.13	946.08	970.01	995.43

[80] Excluding depreciation, which is included in the fleet on-cost.

Pricing category $/unit (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20
Supply abolishment during business hours - urban/short rural feeders	336.68	352.55	354.78	363.75	373.29
Supply abolishment during business hours - long rural/isolated feeders	673.35	705.10	709.56	727.51	746.58
De-energisation during business hours - urban/short rural feeders	94.03	98.41	98.98	101.44	104.05
De-energisation during business hours - long rural/isolated feeders	561.13	587.58	591.30	606.26	622.15
Re-energisation during business hours - urban/short rural feeders	74.77	78.25	78.71	80.66	82.74
Re-energisation during business hours - long rural/isolated feeders	522.97	547.63	551.09	565.03	579.84
Re-energisation during business hours - after de-energisation for debt - urban/short rural feeders	74.77	78.25	78.71	80.66	82.74
Re-energisation during business hours - after de-energisation for debt - long rural/isolated feeders	522.97	547.63	551.09	565.03	579.84
Accreditation of alternative service providers - real estate developments	866.67	908.06	914.02	937.60	962.59
Prevented access - one person crew - urban/short rural feeders	52.43	54.87	55.19	56.55	58.00
Prevented access - one person crew - long rural/isolated feeders	209.74	219.48	220.74	226.19	232.00
Prevented access - two person crew - urban/short rural feeders	108.01	113.10	113.82	116.69	119.75
Prevented access - two person crew - long rural/isolated feeders	432.06	452.42	455.27	466.77	479.00
Install new or replacement meter (Type 5 and 6) – Single phase – urban/short rural feeder	331.70	345.65	346.11	353.14	360.64
Install new or replacement meter (Type 5 and 6) – Single phase – long rural/isolated feeder	514.25	536.74	538.33	550.12	562.71
Install new or replacement meter (Type 5 and 6) – Dual element – urban/short rural feeder	406.27	422.92	423.05	431.21	439.93
Install new or replacement meter (Type 5 and 6) – Dual element – long rural/isolated feeder	588.82	614.01	615.27	628.19	642.00
Install new or replacement meter (Type 5 and 6) – Three phase – urban/short rural feeder	510.66	531.13	530.81	540.52	550.93
Install new or replacement meter (Type 5 and 6) – Three phase – long rural/isolated feeder	693.21	722.22	723.03	737.50	753.00
Install new or replacement meter (CT) – urban/short rural feeder	2,426.06	2,526.93	2,529.05	2,579.13	2,632.64
Install new or replacement meter (CT) – long rural/isolated feeder	2,775.35	2,892.71	2,897.16	2,956.54	3,019.95

It should be noted that the Queensland Government has set maximum price caps to apply to a subset of our Alternative Control Services through Schedule 8 of the *Electricity Regulation 2006 (Qld).* Since the price caps are imposed through legislation, they take precedence over prices approved by the AER. Our annual *Price List for Alternative Control Services* will set out the services impacted by Schedule 8 and the respective capped prices.

5.7.4 Quoted services

Quoted services encompass those services Ergon Energy undertakes at the request of an identifiable customer or retailer that vary in the nature and scope of work, depending on the requestor's needs.

Ergon Energy proposes to adopt an approach consistent with the regulatory control period 2010-15 in determining prices for quoted services. We will charge for:

- the cost of labour by applying labour rates approved by the AER in 2014-15 (escalated annually).[81] The cost of labour includes fleet on-costs and labour on-costs, which comprise the costs associated with payroll tax, superannuation, annual leave entitlements, sick leave entitlements, statutory holidays (special leave) and worker's compensation. The labour on-cost rates will be updated annually. Overheads will also be calculated annually in accordance with Ergon Energy's CAM
- contractor services at the cost they arise in the provision of each individual quoted service. Overheads will be calculated annually in accordance with the CAM
- the costs of materials by applying Ergon Energy's models based on the materials used in the provision of each individual quoted service. These costs are obtained from a combination of our supply system, period contract rates (where available), suppliers and other third party organisations. For materials held in stock, a materials on-cost will also be applied. This rate will be calculated annually. Overheads will also be calculated annually in accordance with the CAM
- the capital costs associated with fleet[82] and other non-system assets, by calculating an amount in accordance with the value of these assets used in the provision of fee based and quoted services. For the design and construction of connection assets for major customers, Ergon Energy has applied an additional margin to the general capital allowance rate, to promote greater competition in the provision of this service
- GST.

Further information on our approach to determining indicative prices for quoted services is provided in our supporting document *05.05.01 – (Revised) Inputs and assumptions for Alternative Control Services*.

Given the nature of quoted services, it is not possible to provide examples of typical or representative services. This is because the actual prices for these services will be determined at the time of the customer's enquiry and will reflect the actual requirements of the service.

However, in order to demonstrate the application of the control mechanism, Ergon Energy has provided a worked example of the calculation of charges for one of our quoted services. This

[81] Except for the administration labour rate. Ergon Energy has adopted the rate set out in the AER's Preliminary Determination.

[82] Excluding depreciation, which is included in the fleet on-cost.

worked example and indicative prices for other quoted services are provided in our supporting document *05.05.01 – (Revised) Inputs and assumptions for Alternative Control Services*.

As noted above, maximum price caps may apply to some of these services as a result of Schedule 8 of the *Electricity Regulation 2006 (Qld).* Our annual *Price List for Alternative Control Services* will set out the services impacted by Schedule 8 and the respective capped prices.

5.8 Assigning customers to tariff classes

Ergon Energy proposes a number of changes to the procedures for assigning and reassigning retail customers to Alternative Control Service tariff classes. We consider it is not practical to notify retailers of tariff class assignments and reassignments since customers or retailers essentially assign themselves to tariff classes.

Assignment or reassignment of customers to Ergon Energy's Alternative Control Services can occur as a result of:

- major customers requesting a new connection to the network or an upgrade to their existing connection
- public lighting customers requesting installation of a new public light, or gifting a new public light to Ergon Energy
- small customers requesting a change to their metering arrangements (e.g. installing controlled load or solar, or choosing another provider if competition is introduced)
- new service orders or works requests being raised as a result of a request for service by either a customer and/or retailer
- requests for a review of the assigned tariff class by either a customer and/or retailer.

Tariffs for Alternative Control Services will be allocated to tariff classes in accordance with the AER's classification of services for the regulatory control period 2015-20. As such, customers and retailers essentially assign themselves to a tariff class by selecting the service that they require. Ergon Energy therefore considers we meet the requirements of clauses 6.18.4(a)(1), (2) and (3) of the NER because the tariffs within each tariff class are provided to customers that have similar service requirements, without distinguishing between customers that have or do not have micro-generation facilities.

Ergon Energy proposes to follow the procedures for assigning or reassigning customers to tariff classes detailed in our submission response, *SCS Building Blocks, Control Mechanism and Pricing – Response.*

Ergon Energy has an effective system for assessing and reviewing an assignment or reassignment decision, as required under clause 6.18.4(4) of the NER. Details of these procedures are set out in our *Information Guide for Alternative Control Services Pricing*.[83]

[83] Available at www.ergon.com.au/networktariffs.

5.9 Supporting documentation

The following documents referenced in this chapter accompany our Regulatory Proposal:

Name	Ref	File name
(Revised) Classification Proposal	02.01.01	(Revised) Classification Proposal
(Revised) Compliance with Control Mechanisms	04.01.00	(Revised) Compliance with Control Mechanisms
(Revised) Public Lighting Services Summary	05.01.01	(Revised) Public Lighting Summary
(Revised) Public Lighting Services PTRM	05.02.03	(Revised) PLPTRM Data Model with Prices
(Revised) Default Metering Services Summary	05.03.01	(Revised) Default Metering Services Summary
(Revised) Default Metering Services PTRM	05.04.07	(Revised) MTPTRM Data Model
(Revised) Inputs and assumptions for Alternative Control Services	05.05.01	(Revised) Inputs and assumptions for ACS
SCS Building Blocks, Control Mechanism and Pricing – Response	N/A	Ergon Energy – SCS Building Blocks, Control Mechanism and Pricing – Response
Alternative Control Services (Other) – Response	N/A	Ergon Energy – Alternative Control Services (Other) – Response
Metering – Response	N/A	Ergon Energy – Metering – Response