



**Investigation of standing offer prices for small customers on  
mainland Tasmania**

**Draft Report**

**February 2016**

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## GLOSSARY AND ACRONYMS

Term	Meaning
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AETV Power	Aurora Energy (Tamar Valley) Power Pty Ltd
Annual standing offer price approval process	The process under which a regulated offer retailer submits its proposed standing offer prices for the Regulator's approval
APAYG	Aurora Pay As You Go
Approved type of contract	Type of wholesale contract approved under section 43G of the ESI Act
Aurora Energy	Aurora Energy Pty Ltd
Authorised retailer	A person who is the holder of a retailer authorisation under the NERL
Basslink	The electricity supply cable between mainland Australia and mainland Tasmania
BSI	Bass Strait Islands
CARC	Customer acquisition and retention costs (costs incurred by a retailer in acquiring additional customers and retaining existing customers)
CER	Clean Energy Regulator
CCGT	Combined Cycle Gas Turbines
CPI	Consumer Price Index
DLF	Distribution Loss Factor
EBITDA	Earnings before interest, tax, depreciation and amortisation
Economic Regulator	The Tasmanian Economic Regulator, established under the <i>Economic Regulator Act 2009</i>
Economic Regulator Act	The <i>Economic Regulator Act 2009</i>
ESCOSA	Essential Services Commission of South Australia
ESI Act	<i>Electricity Supply Industry Act 1995</i>
FRC	Full Retail Competition
GWh	GigaWatt-hour (one GigaWatt-hour is 1 000 Megawatt-hour or 1 000 000 kilowatt-hour)
Hydro Tasmania	Hydro Electric Corporation, from 1 July 1998, ABN 48 072 377 158
ICRC	Independent Competition and Regulatory Commission, Australian Capital Territory

<b>Term</b>	<b>Meaning</b>
Interim investigation	The price investigation conducted under Regulation 7 of the <i>Electricity Supply Industry (Pricing and Related Matters) Regulations 2013</i>
Interim pricing period	The period commencing on 1 January 2014 to 30 June 2016
IPART	Independent Pricing and Regulatory Tribunal of New South Wales
kVA	KiloVolt-Ampere
kWh	KiloWatt-hour
LGC	Large-scale Generation Certificate
Load	Electricity consumed by electricity users
Load Following Swap (LFS)	One of the types of financial contracts Hydro Tasmania is required to offer to retailers. The Regulator was required to adopt the LFS price in estimating Aurora Energy's WEP and, consequentially, its WEC.
LRET	Large-scale Renewable Energy Target
LRMC	Long run marginal cost
Mainland Tasmania	All parts of Tasmania other than any off-shore island of Tasmania (except for Bruny Island)
Market retail contract	A contract between a retailer and a small customer who decides not to remain on a standard retail contract. Terms and conditions in market retail contracts can vary from contract to contract.
MFP	Market Floor Price
MLF	Marginal Loss Factor
MPC	Market Price Cap
MRET	Mandatory Renewable Energy Target
MW	Megawatt
MWh	Megawatt-hour
NECF	National Energy Customer Framework
NEL	National Electricity Law
NERL	National Energy Retail Law, as applied in Tasmania by the <i>National Energy Retail Law (Tasmania) Act 2012</i>
NEM	National Electricity Market
NER	National Electricity Rules
NMI	National Metering Identifier
NMR	Notional maximum revenue
NTB	Notional Tariff Base. The notional tariff base comprises the customer numbers and loads for all small customers connected to the distribution network that are eligible to take supply under a regulated tariff



<b>Term</b>	<b>Meaning</b>
OCGT	Open Cycle Gas Turbines
OTTER	Office of the Tasmanian Economic Regulator
Period 1	The period commencing on 1 July 2016 to 30 June 2017
Period 2	The period commencing on 1 July 2017 to 30 June 2018
Period 3	The period commencing on 1 July 2018 to 30 June 2019
PIF (Prescribed inflationary factor)	The factor used to account for changes in the Consumer Price Index during the regulatory period as specified in the 2016 Standing Offer Determination
Pricing Regulations	<i>Electricity Supply Industry (Pricing and Related Matters) Regulations 2013</i>
QCA	Queensland Competition Authority
Regulated offer retailer	An authorised retailer who is declared to be a regulated offer retailer in accordance with an order made under section 38B(1) of the ESI Act
RET	Renewable Energy Target
Retail Rules	<i>National Energy Retail Rules</i>
Retailer authorisation	Authorisation issued by the AER under the National Energy Retail Law. Unless exempt from the requirement, a person must hold a retailer authorisation prior to engaging in the retail sale of energy.
ROC	Retail operating costs
RPP	Renewable Power Percentage
Small customer	A customer who is a small customer under the NERL
SRES	Small-scale Renewable Energy Scheme
STC	Small-scale Technology Certificate
STP	Small-scale Technology Percentage
Standard retail contract	A contract under which a regulated offer retailer provides standard retail services to small customers. The retailer is unable to change the terms and conditions set out in a standard retail contract. A small customer electing not to enter into a market retail contract with a retailer receives supply under a standard retail contract.
Standard retail services	Services provided by a regulated offer retailer under standard retail contracts in respect of small customers
Standing offer prices	The standing offer prices, fixed, or amended under section 40 of the ESI Act. Standing offer prices are approved by the Regulator under section 41 of the ESI Act.
Standing Offer Price Strategy	Aurora Energy's Draft Standing Offer Price Strategy to be submitted to the Regulator in February 2016.

Term	Meaning
STC Clearing House	The STC Clearing House is a facility under the SRES that facilitates the exchange of STCs between buyers and sellers at a fixed price of \$40 (excl. GST). Use of the STC Clearing House for these transactions is optional.
TasNetworks	TasNetworks Pty Ltd, from 1 July 2014, ABN 24 167 357 299
Treasury	The Tasmanian Department of Treasury and Finance
WEC	Wholesale Electricity Costs
WEP	The Wholesale Electricity Price derived from the wholesale pricing model
Wholesale Contract Regulatory Instrument	The instrument containing the approvals that will be made by the Minister for Finance under sections 43G(1) and 43O(1) of the ESI Act and Regulation 20 of the Pricing Regulations, having taken into account the principles set out in section 43H of the ESI Act
Wholesale pricing model	The model developed by Concept Consulting Pty Ltd for Treasury that was used to calculate wholesale electricity prices
2007 Determination	The determination made in accordance with Regulation 31 of the <i>Electricity Supply Industry (Price Control) Regulations 2003</i> issued 30 October 2007 (as amended 10 December 2007)
2010 Investigation	The investigation conducted in accordance with the requirements of Regulation 23 of the <i>Electricity Supply Industry (Price Control) Regulations 2003</i>
2010 Determination	The determination made in accordance with Regulation 31 of the <i>Electricity Supply Industry (Price Control) Regulations 2003</i> at the completion of the 2010 Investigation
2013 Determination	The determination made in accordance with Regulation 22C of the <i>Electricity Supply Industry (Price Control) Regulations 2012</i>
2013 Standing Offer Determination	The interim price-regulated retail service price determination made on 29 July 2013 in accordance with section 40AA of the ESI Act

## EXECUTIVE SUMMARY

The purpose of a pricing investigation is to gather information to assist the Economic Regulator in determining the maximum electricity standing offer prices that Aurora Energy, as a regulated offer retailer, may charge small electricity customers on mainland Tasmania (including Bruny Island) for services provided under standard retail contracts.

This investigation is to be conducted in accordance with the *Electricity Supply Industry Act 1995* (the ESI Act) and the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (Pricing Regulations).

The current determination expires on 30 June 2016. The Economic Regulator is therefore required to make a new price determination which will run for the three year period from 1 July 2016 to 30 June 2019.

As with previous price determinations, the Economic Regulator is proposing to set maximum prices for small customers by reference to the notional maximum revenue (NMR) that may be earned when the proposed standing offer prices are applied to a notional tariff base (NTB). The NTB comprises the forecast customer numbers and forecast load for all small customers connected to the distribution network that are eligible to take supply under a regulated price.

In calculating the NMR, the Economic Regulator estimates the efficient costs of supplying standard retail services to small customers. These costs include the cost of energy (wholesale electricity cost or WEC), network charges (transmission and distribution charges, both of which are regulated by the Australian Energy Regulator (AER)), retail costs as well as Renewable Energy Target (RET) costs, Australian Energy Market Operator (AEMO) charges and metering charges.

The Economic Regulator has discretion only with respect to the retail margin, the retail cost-to-serve and the calculation of RET costs.

The NMR is determined using a formula, where the individual components are the costs estimated to be incurred by Aurora Energy in supplying standard retail services to standing offer customers. More information on the Economic Regulator's proposed NMR formula and methodology for calculating the NMR is contained in Chapter 3.

The majority of the NMR components for the 2016 Standing Offer Determination are subject to change. Additionally, forecasts of network, metering and AEMO costs rely on third parties providing information which is usually not available until after the Economic Regulator's draft and/or final investigation reports have been published. In order to reflect the most up-to-date information available, the Economic Regulator proposes calculating the NMR for each year during the annual standing offer price approval process in June each year and only providing an illustrative NMR for 2016-17 in the Final Report to be published in April 2016.

## COMPETITION CONSIDERATIONS

The Economic Regulator notes that while the Tasmanian electricity market has been fully open to competition since 1 July 2014, as of February 2016, no other retailer has chosen to operate in the residential electricity market on mainland Tasmania. The presence or potential presence of retail competition is an important consideration in the calculation of the NMR.

Given the circumstances, there are three potential approaches:

- assume that no retail competition will eventuate in the regulatory period;
- that effective retail competition will eventuate soon after the Determination is made;
- or adopt a mixed approach, acknowledging that, while no competition currently exists, it is possible that competition may emerge during the regulatory period.

These options reflect the competing objectives under the ESI Act which include, promoting efficiency and competition in the electricity supply industry and protecting the interests of consumers of electricity. In balancing these competing objectives, the Economic Regulator is mindful of ensuring that prices do not restrict competition, but are set at a level which reflect efficient costs.

## WHOLESALE ELECTRICITY COSTS

A key input into the calculation of the NMR is the estimate of WEC. The WEC is based on the wholesale electricity price (WEP), forecast standing offer customer load and the distribution loss factor. The Economic Regulator developed a load following swap weighted average methodology for calculating the WEP for the regulatory period covered by the 2013 Standing Offer Determination and proposes using the same methodology for the 2016 Standing Offer Determination.

More information on the Economic Regulator's proposed approach to calculating the WEC and the WEP is contained in Chapter 4 of the Draft Report.

## RETAIL COST-TO-SERVE

In determining the maximum prices for small customers, the Economic Regulator makes an allowance for the cost to provide services to those customers. The cost-to-serve is the allowance provided to enable the retailer to cover its operating costs.

The cost-to-serve is set to reflect the efficient costs that would be incurred by a retailer in providing retail services to its customers. It is generally expressed as a dollar amount per customer per annum.

In previous investigations, the Economic Regulator adopted a benchmarking approach to setting the allowance for the cost-to-serve. However, the Economic Regulator proposes adopting a combination approach in determining a cost-to-serve allowance for this regulatory period. This approach consists of

calculating a cost-to-serve allowance via a cost build-up approach and then checking the result of this calculation against the cost-to-serve figure allowed by regulators in other Australian jurisdictions.

The Economic Regulator undertook an operating cost build-up by analysing Aurora Energy's forecast operating costs for the regulatory period. The Economic Regulator revised Aurora Energy's estimate of its efficient operating costs by excluding a number of costs. However, on top of operating costs, the Economic Regulator considers that Aurora Energy should be permitted to recover at least some competition-related customer acquisition and retention costs.

The Economic Regulator proposes, for Period 1 of the regulatory period, a cost-to-serve allowance of \$26.76 million (\$114.64 per customer).

More information on the Economic Regulator's proposed approach to determining Aurora Energy's cost-to-serve allowance is contained in Chapter 5 of the Draft Report.

## **RETAIL MARGIN**

The retail margin is intended to compensate an electricity retailer for the investment it makes in its retail business and for the risks it assumes in providing retail services to standing offer customers.

In determining Aurora Energy's retail margin for this Draft Report, the Economic Regulator has considered the retail margins set in other jurisdictions and has not identified any evidence to suggest that the risks facing a regulated offer retailer operating in Tasmania are greater than the risks facing retailers operating in other jurisdictions. Consequently, the Economic Regulator can see no reason to allow a higher retail margin than that provided in other jurisdictions.

The Economic Regulator proposes providing Aurora Energy with a net retail margin of 5.7 per cent per annum on total costs for each year of the regulatory period.

More information on the Economic Regulator's proposed approach to determining net retail margin is contained in Chapter 6 of the Draft Report.

## **PASS THROUGH COSTS**

Pass through costs include network costs, the cost of complying with the Australian Government's mandatory renewable energy schemes, metering costs and the costs of operating in the NEM.

More information on the Economic Regulator's proposed treatment of pass through costs is contained in Chapter 7 of the Draft Report.

## **PRICE IMPACTS**

It is not possible at this stage to identify what the price impacts will be over the new regulatory period as the components of the NMR are subject to change and it is expected that Aurora Energy will seek the Economic Regulator's approval to

undertake price reforms to the structure of its standing offer prices which will affect different customers differently.

## NEXT STEPS

Submissions on the Draft Report, Draft Determination and Draft Guideline will close on 15 March 2016. Following this the Economic Regulator will consider submissions prior to making a final decision, which will be published in a Final Report, due to be released on 29 April 2016. At the same time, the Economic Regulator will make a Final Determination that specifies either the maximum standing offer prices or the method of determining those prices that Aurora Energy may charge standing offer customers during the regulatory period.

Aurora Energy is required to submit a revised version of its Draft Price Strategy by 12 February 2016. Following the Regulator's review, the revised Draft Strategy will be released along with a consultation paper for public comment.

Aurora Energy's final Standing Offer Price Strategy will be considered by the Economic Regulator after public consultation.

Aurora Energy will then be required to submit its proposed standing offer prices for Period 1 of the regulatory period (ie 1 July 2016 to 30 June 2017) for the Economic Regulator's consideration and approval.

The following table outlines the remaining tasks and milestones with respect to the Economic Regulator's investigation and subsequent approval of standing offer prices for 2016-17.

<b>Description</b>	<b>Milestone</b>
Economic Regulator releases Draft Report, Draft Determination, Draft Price Approval Guideline and Consultation Paper	5 February 2016
Aurora Energy provides the Economic Regulator with its revised Standing Offer Draft Price Strategy	12 February 2016
Public consultation on Draft Report, Draft Determination, Draft Price Approval Guideline closes	15 March 2016
Economic Regulator releases Aurora Energy's revised Standing Offer Draft Price Strategy for consultation	March 2016
Economic Regulator releases final Price Approval Guideline	1 April 2016

Economic Regulator approves Aurora Energy's Standing Offer Price Strategy	April 2016
Economic Regulator releases Final Report and Final Determination	29 April 2016
Aurora Energy submits pricing proposal for 2016-17	30 May 2016
Economic Regulator approves standing offer prices to apply from 1 July 2016	June 2016





# 1 INTRODUCTION

## 1.1 Background

This investigation is to be conducted in accordance with the *Electricity Supply Industry Act 1995* (the ESI Act) and the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (Pricing Regulations).

The previous determination, the 2013 Interim Price-Regulated Retail Service (Standing Offer) Price Determination, expires on 30 June 2016. The Economic Regulator is therefore required to make a new price determination which is to commence on 1 July 2016 in respect of standing offer prices<sup>1</sup>.

In accordance with Regulation 9 of the Pricing Regulations, the Economic Regulator is required to conduct a pricing investigation prior to making a price determination.

### 1.1.1 Previous investigations

The first independent review of retail tariffs was conducted in 1996 under Terms of Reference issued by the Government in accordance with the *Government Prices Oversight Act 1995*<sup>2</sup>. Under the Government Prices Oversight Act, it was the Government's responsibility to set maximum prices after taking into consideration the recommendations of the Government Prices Oversight Commission. The Government, having considered the recommendations contained in the final report for the investigation, set maximum prices for retail tariffs.

Following disaggregation of the former Hydro-Electric Corporation into three separate businesses and the establishment of the independent Electricity Regulator, the Government issued terms of reference to the Regulator to conduct an investigation and determine maximum prices for retail tariffs in 1999 in accordance with the *Electricity Supply Industry (Price Control) Regulations 1998*<sup>3</sup>. The scope of the 1999 Investigation covered the determination of maximum prices for the supply of energy for sale to tariff customers, transmission services, distribution services and retail services for tariff customers.

A second investigation was undertaken in 2003. However, the Economic Regulator was not required in that investigation to consider either the price of energy, which was set by reference to a vesting contract that had been authorised by the Australian Competition and Consumer Commission (ACCC), or transmission services revenues, which were also set by the ACCC. That is, the Economic Regulator's investigation

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<sup>1</sup> A standing offer is a basic offer for electricity, also referred to as a standard retail offer.

<sup>2</sup> This Act was repealed in 2010 following the proclamation of the *Economic Regulator Act 2009*.

and determination was limited to the setting of a maximum revenue for distribution services and maximum retail tariffs for non-contestable customers.

The third investigation was undertaken in 2007. The Economic Regulator's investigation and determination in 2007 was again limited to the setting of a maximum revenue for distribution services and maximum retail tariffs for non-contestable customers.

Following Tasmania's entry into the National Electricity Market (NEM) in May 2005 and until March 2007, the *Electricity Supply Industry (Price control) Regulations 2003* required the Economic Regulator to set the price of electricity for non-contestable customers with reference to a regulated contractual arrangement between Aurora Energy Pty Ltd (Aurora Energy) and the Hydro Electric Corporation (Hydro Tasmania).

For the 2007 Determination, the Economic Regulator was required, in calculating the notional maximum revenue (NMR), to adopt a wholesale energy price as specified in the *Electricity Supply Industry (Price Control) Amendment Regulations 2007*. The energy price was a forward electricity price determined by a consultant engaged by the Government.

A fourth investigation was undertaken in 2010. The 2010 Investigation was limited to the setting of maximum retail tariffs for non-contestable customers as responsibility for the economic regulation of distribution services had been transferred to the Australian Energy Regulator (AER) on 1 July 2009.

For the 2010 Determination, the *Electricity Supply Industry (Price Control) Amendment Regulations 2010* specified factors and principles that the Economic Regulator was required to take into account in setting the energy supply cost allowance for calculating the NMR. The Economic Regulator was required to set the energy supply cost allowance at least equal to the Long Run Marginal Cost (LRMC) of a notional new generator supplying electricity to non-contestable customers in Tasmania.

The Economic Regulator engaged a consultant to provide an estimate of the LRMC of supplying the Tasmanian non-contestable load for the three years from 2010-11 to 2012-13 inclusive. The Economic Regulator included a mechanism in the 2010 Determination that provided for the energy supply cost allowance to be adjusted each year if there was material change ie five per cent or more, in the LRMC estimate provided in the LRMC estimate provided in the 2010 Determination.

The 2013 Interim Price-Regulated Retail Service (Standing Offer) Price Determination investigation was conducted in conjunction with the proposed sale of Aurora Energy's customer base. The scope of this investigation (and subsequent determination) was purposively limited due to the short time frame involved and the specific purpose of the resultant determination. This determination was subsequently amended when the Government decided not to proceed with the sale of Aurora Energy's customer base.

Prior to the 2013 Determination, the Government changed the methodology for calculating the energy supply cost allowance. The *Electricity Supply Industry (Price*

*Control) Amendment Regulations 2012* required the Economic Regulator to calculate the energy supply cost allowance based on the average of:

- the LRMC of electricity generation by a notional electricity generator to supply electricity to non-contestable customers on mainland Tasmania; and
- the price Aurora Energy would pay to purchase electricity in Victoria and transport the electricity to mainland Tasmania to supply non-contestable customers on mainland Tasmania.

The Wholesale Contract Regulatory Instrument (Instrument) was made on 29 July 2013 and is in effect for the period 1 January 2014 to 31 December 2018. The Instrument makes the Economic Regulator responsible for regulating Hydro Tasmania's wholesale contract activities. From 1 January 2014, Hydro Tasmania has been required to offer a range of regulated derivatives contracts to authorised retailers operating in Tasmania. The Economic Regulator is responsible for regulating this activity and approves the types of regulated derivatives contracts that are available and monitors the sale of these contracts and the price at which they are offered. These arrangements are enshrined in legislation and supported by the wholesale regulatory framework.

## 1.2 Objective of the investigation

The objective of the pricing investigation is to provide the Economic Regulator with information to enable the making of a determination under section 40AA of the ESI Act in respect to the maximum prices that a regulated offer retailer may charge small customers on mainland Tasmania (including Bruny Island) under standard retail (standing offer) contracts.

## 1.3 Matters to be considered

Regulation 13 of the Pricing Regulations requires the Economic Regulator to consider the following matters, in making its standing offer price determination:

- (a) any interstate or international benchmarks for prices, costs, revenues and return on assets in bodies providing a service similar to the services, under a standard retail contract with a small customer, to which the determination relates;
- (b) the effects of inflation;
- (c) the impact on pricing policies of any borrowing, capital, dividend, and taxation, obligations of the regulated offer retailer, including obligations to renew or increase assets;
- (d) the quality of the provision of services to small customers under standard retail contracts of the regulated offer retailer;
- (e) any licence, obligation or retailer authorisation under the Act, any regulations made under the Act, the National Energy Retail Law (Tasmania), the National Energy Retail Regulations (Tasmania), the National Energy Retail Law (Tasmania) Act 2012 and

any regulations made under that Act, that apply, or are likely to apply, to the regulated offer retailer;

- (f) the Code;
- (g) the National Electricity Rules;
- (h) any costs (including capital expenditure) incurred by the regulated offer retailer at the direction of the Regulator;
- (i) the public interest; and
- (j) any other matter the Regulator considers relevant.

Additionally, under section 40AB of the ESI Act the Economic Regulator must, in determining the maximum prices a regulated offer retailer may charge small customers under standard (standing offer) contracts:

- (a) estimate the operational costs of the retailer in providing standard retail services; and
- (b) take into account the principle that the maximum prices that may be imposed by the retailer under standard retail contracts in respect of small customers are to be such as will enable the retailer, after the operational costs are taken into account, to make a reasonable return on its investment in respect of the provision of standard retail services, taking into account the risk of making that investment; and
- (c) take into account the principle that small customers should be protected from the adverse effects of the exercise of substantial market power by –
  - (i) the Hydro-Electric Corporation; or
  - (ii) the regulated offer retailer in relation to prices, pricing policies and standard of service in respect of the provision of standard retail services by regulated offer retailers; and
- (d) take into account the principle that, for the purpose of benefitting the public interest, there is a need for efficiency in the provision of standard retail services.

Unlike the 2010 regulated tariff investigation where the Treasurer issued formal Terms of Reference and the 2013 investigation (as part of the proposed sale of Aurora Energy's customer base) where the scope of the investigation (and subsequent determination) was purposefully limited, Regulation 10(2) of the Pricing Regulations requires the notice to specify the following:

- (a) The objective of the investigation; and
- (b) The period within which, and the form in which, submissions may be made to the Regulator; and
- (c) The matters that the Regulator would like submissions to address; and
- (d) The date by which the Regulator is to complete the pricing investigation by providing a final report in relation to the investigation.

Notice of the 2016 Investigation (setting out the above requirements) was published on the Economic Regulator's website on 2 July 2015 (Appendix 1).

## Duration

The Economic Regulator has decided that the next regulatory period will be for a period of three years ie from 1 July 2016 until 30 June 2019.

## Date for completion of the investigation

The Final Report is to be completed by 29 April 2016.

## 1.4 Context

### 1.4.1 Tasmanian legislative framework

#### ***Electricity Supply Industry Act 1995***

The electricity supply industry in Tasmania is governed by the *Electricity Supply Industry Act 1995*.

#### ***Electricity Supply Industry (Pricing and Related Matters) Regulations 2013***

The Pricing Regulations set out the process and matters to be taken into account by the Economic Regulator in undertaking investigations and determining maximum electricity prices.

#### ***Economic Regulator Act 2009***

From 1 July 1998 until 31 May 2010, the Economic Regulator for the purposes of the ESI Act was the Government Prices Oversight Commissioner appointed under the Government Prices Oversight Act. On 1 June 2010, the *Economic Regulator Act 2009* was proclaimed. This Act provided for the establishment of a three-person body or board, the Tasmanian Economic Regulator (Economic Regulator). The Economic Regulator replaced the statutory positions of the Electricity Regulator, Director of Gas, Government Prices Oversight Commission and the Water and Sewerage Economic Regulator. Following the enactment of the *Economic Regulator Amendment Act 2015*, the Economic Regulator was restructured, effective from 1 July 2015, from a three-person panel to a single person with the capacity to appoint an Assistant Regulator for specific functions, if required.

### 1.4.2 National Electricity Market

Tasmania has been a participating jurisdiction in the NEM since May 2005. This was supported through the construction of the Basslink undersea electricity inter-connector connecting Tasmania with Victoria, which commenced commercial operations in April 2006.

As a participating jurisdiction in the NEM, electricity businesses operating in Tasmania are bound by the National Electricity Law (NEL) and the National Electricity Rules (NER).<sup>4</sup>

In the NEM the price of energy is set through the wholesale spot market, which is operated by the Australian Energy Market Operator (AEMO).<sup>5</sup> However, retailers and generators are able to manage the risks of trading in the NEM through hedging arrangements in the financial markets. Additionally, since January 2014, under the Tasmanian wholesale contract regulatory framework, the Economic Regulator has regulated a number of wholesale electricity contracts that Hydro Tasmania must offer to sell to authorised retailers operating in Tasmania.

#### 1.4.3 Structure of the electricity supply industry in Tasmania

Until 1998 electricity supply in Tasmania was provided through one integrated business, the former Hydro-Electric Corporation (HEC). The HEC was separated in 1998 into three businesses providing four distinct services: generation, transmission, distribution and retail. Since then, the provision of generation and retail services has progressively been opened up to competition. The provision of transmission and distribution services have been combined following the creation of Tasmanian Networks Ltd (TasNetworks). The services currently supplied are as follows:

**Generation** is principally supplied through hydro generation by the HEC. Additional generation is provided through a number of smaller generating schemes including mini-hydro, wind turbines, embedded generation and cogeneration.

**Transmission** and **Distribution** services are provided by TasNetworks, following the merger of Transend Networks Pty Ltd and Aurora Energy Pty Ltd (Aurora Distribution) on 1 July 2014.

**Retail** services are provided by three authorised retailers, including Aurora Energy in its capacity as the regulated offer retailer to small customers. The other authorised retailers operating in Tasmania are ERM Power Retail Pty Ltd and Progressive Green.

#### 1.4.4 Retail contestability

The phased introduction of retail contestability commenced on 25 July 2005. Retail competition has been progressively introduced for customers that consume more than 150 megawatt hours (MWh) per annum. A customer's contestability status was determined on a site by site basis. In December 2009 the Government announced it would extend contestability to all business customers with consumption

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<sup>4</sup> The National Electricity Law as set out in the Schedule to the *National Electricity (South Australia) Act 1996* and the regulations in force under Part 4 of the *National Electricity (South Australia) Act 1996* of South Australia are enforced through the *Electricity - National Scheme (Tasmania) Act 1999*.

<sup>5</sup> The operation of the NEM was previously undertaken by the National Electricity Market Management Company (NEMMCO). NEMMCO's functions were transferred to AEMO on 1 July 2009.

greater than 50 MWh per annum. These customers became contestable following the establishment of a national energy customer framework.

Full retail contestability was proposed as part of the ‘Energy for the Future’ reforms announced in May 2012. From 1 January 2014 Aurora Energy was able to offer market retail contracts to all residential and small business customers on mainland Tasmania. From 1 July 2014, full retail contestability was introduced, ie other retailers were able to offer market retail contracts to all residential and business customers and all customers on mainland Tasmania have the option of entering into a market retail contract with Aurora Energy or a new entrant retailer.

The Economic Regulator continues to be responsible for the regulation of Aurora Energy’s standing offer prices for those customers choosing not to enter into a market retail contract.

The Economic Regulator notes that while full retail contestability has been in place since 1 July 2014, as of January 2016, no other retailer has opted to operate in the residential electricity market in mainland Tasmania. The presence or potential presence of retail competition is an important consideration in the calculation of maximum revenue limits. In the absence of competition, Aurora Energy would only need a revenue which reflected the efficient costs of providing services to its existing customer base. However in both competition scenarios, Aurora Energy would only need to be provided with sufficient revenue to cover its efficient costs.

Given the circumstances, the Economic Regulator sees three potential approaches to setting Aurora Energy’s maximum revenue limits:

1. assume that no retail competition will eventuate during the regulatory period;
2. assume that effective retail competition will eventuate soon after the Determination is made; or
3. adopt a mixed approach, acknowledging that while competition does not currently exist, it is possible that competition may emerge during the regulatory period.

These options reflect the Economic Regulator’s competing objectives under the ESI Act which include promoting efficiency and competition while at the same time protecting the interests of electricity consumers. In balancing these competing objectives, the Economic Regulator must therefore be mindful of ensuring that prices do not restrict competition, but are set at a level which reflects efficient costs.

Further, the Economic Regulator considers its role is not to predict the future level of competition in the Tasmanian market, but to set the NMR independently of what may occur in the future so as not to impede competition.

#### 1.4.5 National reforms

Tasmania has been a signatory to the *Australian Energy Market Agreement* (AEM Agreement) since its inception on 30 June 2004. The AEM Agreement provided for the establishment of the AER and the Australian Energy Market

Commission (AEMC), which are responsible for the economic regulation of the national energy markets, other than the price regulation of retail services.

In 2007 a single industry-funded national energy market operator for both electricity and gas (AEMO) was established to provide energy market governance on a national basis. AEMO is responsible for managing the national wholesale electricity market including dispatch and settlement and the procurement of ancillary services.

The NEL and NER, which took effect on 1 July 2008, provide the overarching national regulatory framework for the electricity industry.

On 1 July 2012 the National Energy Customer Framework (NECF) was introduced, and the AER assumed responsibility for Tasmanian retailer authorisations and the economic regulation of Aurora Energy's (now TasNetworks') distribution network services.

Substantial reforms to the NEM are currently underway following recommendations to the state and federal government by the AEMC Power of Choice review that are targeted at giving consumers options in the way they use electricity. The package of reforms aims to support the electricity market in meeting consumer needs over the next 15-20 years.

#### 1.4.6 The Australian Government's climate change mitigation strategies

The Australian Government's Renewable Energy Target (RET) scheme creates a guaranteed market for renewable energy using a mechanism of tradable certificates created by large-scale renewable energy generators and owners of small-scale solar panel, wind, and hydro systems.

The RET operates in two parts, as the Large Renewable Energy Target (LRET) and the Small-Scale Renewable Energy Scheme (SRES). The RET works by allowing both large renewable power stations and the owners of small-scale systems to create renewable energy certificates for every megawatt hour of power they generate. Each certificate represents one megawatt hour of renewable electricity.

Retailers are required to purchase and surrender certificates in accordance with the RET, in proportion to their total electrical energy sales.

On 17 February 2014, the Australian Government announced a review of the RET scheme by an Expert Panel. The Panel's review was released in August 2014 and concluded that the cost of the RET outweighed its benefits and that significant change was required. The review recommended that:

- the LRET be either closed to new entrants or modified so that targets to 2020 are set one year in advance and increase by half of projected additional electricity demand in that year;



- the SRES be either terminated immediately or phased out more rapidly (by 2020 rather than 2030)<sup>6</sup>.

The Climate Change Authority subsequently conducted its biennial review as required by its enabling legislation and:

- stated that it did not favour any significant scaling back of the 2020 Large-scale Renewable Energy Target of 41 000 GWh;
- recommended a rescheduling of the current target to increase the likelihood it will be met; and
- noted the challenges of climate change are ongoing and recommended the Government consider the role of the RET beyond 2020.<sup>7</sup>

After considering the outcomes from these reviews, the Australian Government decided to set a new 2020 target for large-scale generation of 33 000 GWh. The Government stated that this target will double the amount of large-scale renewable energy being delivered by the scheme compared to current levels and means that about 23.5 per cent of Australia's electricity generation in 2020 will be from renewable sources.<sup>8</sup> The legislation required to implement these changes was passed by the Australian Parliament on 23 June 2015.

## 1.5 Consultation process

Regulation 10(2) of the Pricing Regulations refers to submissions which may be made in regards to a retail pricing investigation. In addition, the *Consultation Policy and Procedures of the Tasmanian Economic Regulator* (Version 5, January 2016) states that the Economic Regulator will consult in relation to the exercise of statutory discretions or responsibilities, which affect the interest of entities, consumers or other persons.

On 30 September 2015, Aurora Energy made its preliminary submission to the Standing Offer Pricing Investigation. Prior to receipt of the submission, Aurora Energy had written to the Economic Regulator requesting that the submission be treated as confidential. In accordance with section 16(1) of the Act and its *Policy on the Treatment of Confidential Submissions* (Version 3, 1 July 2014), the Economic Regulator agreed to keep the preliminary submission confidential due to commercial sensitivity considerations. That submission will therefore not be released publicly.

Under Regulation 9 of the Pricing Regulations, the objective of the pricing investigation is to gather information to assist the Economic Regulator in making a

<sup>6</sup> <http://www.climatechangeauthority.gov.au/reviews/2014-renewable-energy-target-review/report#chapter1>

<sup>7</sup> <http://www.climatechangeauthority.gov.au/reviews/2014-renewable-energy-target-review>

<sup>8</sup> <https://www.environment.gov.au/climate-change/renewable-energy-target-scheme>

determination. In line with previous pricing investigations, the Economic Regulator seeks written submissions on this Draft Report and Draft Determination.

### 1.5.1 Next steps

Submissions received in response to this Draft Report, and all submissions received to date, will be taken into account by the Economic Regulator in making its final decision, which will be published in a Final Report in accordance with Regulation 11 of the Pricing Regulations.

As required under Regulation 31(1), after completing the Final Report the Economic Regulator will make a determination that regulates the maximum prices that may be charged by, and specifies the pricing mechanisms imposed on, Aurora Energy in relation to standing offer prices in respect of retail services to small customers.

Aurora Energy will then be required to submit its proposed standing offer prices for Period 1 of the regulatory period (ie 1 July 2016 to 30 June 2017) for the Economic Regulator's consideration and approval.

## 1.6 Invitation for submissions

In accordance with the matters the Economic Regulator is required to consider under Regulation 13, in determining standing offer prices, submissions on the Draft Report and Draft Determination are invited on the proposals outlined in the Draft Report, Draft Determination and the Draft Guideline.

It is the Economic Regulator's policy to publish all submissions on the Office of the Tasmanian Economic Regulator's (OTTER) website unless the author of the submission requests confidentiality in relation to the submission (or any part of the submission). Those parts of a submission that are requested to be confidential should be submitted as an attachment to that part suitable for publication.

The Economic Regulator will not publish submissions which contain material that the Economic Regulator believes is, or could be, derogatory or defamatory.

Submissions should be received by close of business on 15 March 2016.

To facilitate the publication of submissions on OTTER's website, submissions by email are preferred. Submissions and enquires may be made to:

[office@economicregulator.tas.gov.au](mailto:office@economicregulator.tas.gov.au)

or to

Todd Newett, Principal Policy Analyst  
Office of the Tasmanian Economic Regulator  
GPO Box 770,  
Hobart 7001

Telephone: 03 6166 4422

## 2 APPROACH TO SETTING STANDING OFFER PRICES

### 2.1 Background

This Chapter provides an overview of the approach the Economic Regulator proposes adopting in setting maximum Standing Offer prices for the period 1 July 2016 to 30 June 2019.

### 2.2 Legislative Requirements

Under section 6 of the ESI Act the Economic Regulator is required to, amongst other things, balance the competing objectives of promoting competition and efficiency in the electricity supply industry whilst also protecting the interests of consumers.

Under Regulation 9 of the Pricing Regulations, the Economic Regulator must conduct an investigation before making a determination under section 40AA(1) of the ESI Act.

In making a determination at the conclusion of the investigation, the Economic Regulator must comply with the requirements of Regulation 12 of the Pricing Regulations, which states:

*A price-regulated retail service price determination may be expressed in one or more of the following terms or manners:*

- (a) maximum prices or the maximum rate of increase or the minimum rate of decrease in maximum prices;*
- (b) average prices or average rates of increase or decrease in average prices;*
- (c) pricing policies or principles;*
- (d) by reference to a general price index, the cost of production, revenue, a rate of return on assets or any other factor;*
- (e) by reference to quantity, location or period of provision of the services to small customers under standard retail contracts;*
- (f) by reference to a maximum revenue;*
- (g) any other terms the Regulator considers appropriate.*

### 2.3 Overview of Approach

In each of the Economic Regulator's previous five retail price determinations, maximum prices for small (formerly non-contestable) customers have been set by reference to the NMR that may be earned when the proposed Standing Offer prices are applied to a notional tariff base (NTB). The NTB comprises the customer numbers

and loads for all small customers connected to the distribution network that are eligible to take supply under a regulated price.

The Economic Regulator is proposing to adopt the same form of regulation as that applied in the previous retail tariff price determinations, ie the regulation of prices by reference to a NMR.

## 2.4 Calculating the NMR

In calculating the NMR, the Economic Regulator sets the amount of revenue required to enable the retailer to recover the efficient costs of supplying standard retail services to small customers, which include: the cost of energy (wholesale electricity cost), network charges, retail costs as well as RET costs, AEMO charges and metering charges.

Network charges comprise two components: transmission and distribution charges, both of which are regulated by the AER.

Retail costs include the cost to provide retail services such as billing and account management and a retail margin intended to provide the retailer with a commercial return, taking account of risk and a required profit margin.

As can be seen from Table 2.1, the proportion of retail costs to be determined directly by the Economic Regulator for the next regulatory period based on the illustrative NMR presented in Table 8.1 of this Draft Report is approximately 17 per cent of total costs.

**Table 2.1: Cost components of average standing offer prices – Period 1 (2016-17)**

Component	Determined by	Percentage %
AEMO market charges	AEMO	0.4
<b>Renewable Energy Target Costs</b>	<b>Economic Regulator (the Clean Energy Regulator (CER) prescribes the percentages used to calculate the number of certificates to be acquired)</b>	<b>5.9</b>
Energy costs	Economic Regulator (based on Wholesale Pricing Regulatory Framework)	26
Network charges	AER	53.7
Metering charges	AEMC/AER	2.8
<b>Retail costs</b>	<b>Economic Regulator</b>	<b>11.2</b>
Total		100

## 2.5 Estimating Efficient Costs

In calculating the NMR, the Economic Regulator seeks information from Aurora Energy on its estimation of costs, however the Economic Regulator also

conducts its own research and seeks information from other relevant third parties to validate the information provided by Aurora Energy.

## 2.6 Tariff Reform

The Economic Regulator expects tariff reform to be an important issue for this investigation from two different albeit related perspectives.

Firstly, following a rule change approved by the AEMC in December 2014, network businesses are required to transition to cost reflective network tariffs. At the time of writing TasNetworks' approach to the transition is yet to be finalised. However the rule change will apply in Tasmania from 1 July 2017.

From the perspective of Standing Offer prices, the Economic Regulator will be concerned with how TasNetworks' tariff reform proposals are accounted for in Aurora Energy's standing offer price strategy in terms of their impact on small customers.

Secondly, in its preliminary submission of 30 September 2015, Aurora Energy provided details of the high level principles it intends adopting in its standing offer price strategy. Aurora Energy subsequently submitted its draft standing offer price strategy on 30 November 2015.

The Economic Regulator will consult on Aurora Energy's draft standing offer price strategy commencing in March 2016. The Economic Regulator will subsequently consider any submissions received including submissions made by Aurora Energy and approve a final price strategy in April 2016.

The final standing offer price strategy will be used as a framework within which the Economic Regulator will consider any proposed changes to the structure of Standing Offer prices as part of the annual price approval process.

## 2.7 Annual Price Approvals

Following the making of a standing offer determination, the NMR components and standing offer prices are adjusted each year in accordance with that determination. The process for approving standing offer prices during the regulatory period covered by the 2016 Standing Offer Determination will be set out in a standing offer price approval guideline.

The Economic Regulator will consult on a draft version of this guideline commencing in February 2016 with the final guideline to be released on 1 April 2016.

## 2.8 Investigation Approach

Regulated prices are set to enable a retailer to recover the costs of supplying electricity to small customers. The cost of supply can be broadly grouped into: the cost of energy, pass-through costs, and retail costs.

The various cost components that comprise the NMR and how they have been estimated, are discussed in the following Chapters:

- Chapter 3 discusses the Economic Regulator's consideration of, and draft decisions on, the key parameters it has used in making its draft Determination. The chapter also outlines the formula to be used to calculate the NMR.
- Chapter 4 sets out the Economic Regulator's proposed approach and draft decisions in relation to wholesale electricity costs.
- Chapter 5 sets out the Economic Regulator's proposed approach and draft decisions in relation to the retail margin.
- Chapter 6 sets out the Economic Regulator's proposed approach and draft decisions in relation to the retail cost to serve.
- Chapter 7 sets out the Economic Regulator's proposed approach and draft decisions in relation to the proposed pass-through costs including: network charges, metering charges and AEMO charges.
- Chapter 8 shows the Economic Regulator's calculation of an illustrative NMR for Aurora Energy in respect to Period 1 of the regulatory period.
- Chapter 9 discusses the Economic Regulator's proposed approach to assessing Aurora Energy's standing offer price strategy and the proposed approach to approving standing offer prices for each Period of the regulatory period.

As has been the case in previous retail price investigations in determining the NMR and, as noted in Section 2.4, the Economic Regulator has discretion only with respect to a limited number of the NMR components namely the retail margin, the retail cost to serve (together retail costs) and the calculation of RET costs (with the exception of the inputs which are set by the CER).

## 3 DETERMINATION FORMULA, PARAMETERS AND METHODOLOGY

This Chapter discusses the Economic Regulator’s proposed NMR formula and outlines the parameters and methodology to be used in making the 2016 Standing Offer Determination.

### 3.1 NMR formula

As discussed in Chapter 2, maximum standing offer prices for small customers are to be set by reference to an NMR. The NMR is the notional amount of revenue, as determined by the Economic Regulator, for Aurora Energy to recover efficient costs of supplying standard retail services to a NTB.

The Economic Regulator proposes that the  $NMR_y$  is calculated using the following formula:

$$NMR_y = (R_y + WEC_y + NC_y + AEMO_y + M_y + RET_y + K_y) \times Margin_y + A_y + CF_y$$

where:

$y$  is the relevant period, ie Period 1, Period 2 and Period 3.

$NMR_y$  is the notional maximum revenue that the retailer can receive from the NTB<sup>1</sup>.  $NMR_y$  is calculated for each of Periods 1, 2 and 3 during the annual standing offer price approval process. The Economic Regulator has calculated an illustrative  $NMR_y$  for Period 1 of the 2016 Standing Offer Determination as set out in Chapter 8 of this Draft Report.

$R_y$  is the Cost-To-Serve and is discussed in Chapter 6. In previous determinations  $R_y$  comprised both the wholesale cost of electricity and the Cost-To-Serve. To provide greater transparency as to the composition of the NMR the Economic Regulator proposes presenting the wholesale cost of electricity as a separate component.

$WEC_y$  is the forecast wholesale cost of electricity (Chapter 4).

$NC_y$  is forecast network costs (Chapter 7).

$AEMO_y$  is forecast market participant fees and ancillary services (Chapter 7).

$M_y$  is a forecast of metering charges (Chapter 7).

$RET_y$  is the forecast cost of complying with the Australian Government’s mandatory renewable energy schemes (Chapter 7).

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<sup>1</sup> Discussed in section 3.2.

$K_y$  is an aggregate of under and/or recoveries for network costs, metering charges, RET and AEMO charges from previous periods covered by the 2016 Standing Offer Determination (Chapter 7).

$A_y$  is an adjustment made in accordance with Regulations 12 and 16 of the Pricing Regulations (Chapter 7).

$CF_y$  is an aggregate of under and/or over recoveries from previous periods covered by the 2013 Standing Offer Determination (Chapter 7).

$Margin_y$  is the retail margin (Chapter 5).

## 3.2 Notional Tariff Base

As discussed in Chapter 2 the NTB comprises a forecast of the number of small customers and a forecast of the small customer load. Aurora Energy is required to provide an updated NTB for the Economic Regulator’s approval during the annual standing offer price approval process.

The NTB and its components are used in calculating the components of the NMR as shown in the following table.

**Table 3.1 Use of the NTB and its components in calculating the NMR**

	Customer load and customer numbers	Customer numbers	Customer load
Network costs	X		
Metering costs	X		
Wholesale electricity costs			X
AEMO charges			X
RET costs			X
Cost-To-Serve		X	

### 3.2.1 Forecast NTB for Period 1

The Economic Regulator sought details from Aurora Energy with respect to its forecast of small customers and small customer load for Period 1 of the regulatory period. After satisfying itself as to the reasonableness of those forecasts, the Economic Regulator proposes adopting customer numbers and load as shown in Table 3.2 for the purpose of calculating an illustrative NMR in Chapter 8.

**Table 3.2 Economic Regulator’s proposed customer numbers and load for the illustrative NMR**

	Period 1
Customers (number)	233 445
Load (GWh)	1 869



The forecast NTB relates only to standing offer customers on mainland Tasmania (including Bruny Island) and therefore excludes loads associated with:

- customers on a market contract;
- Aurora Pay As You Go (APAYG) customers; and
- customers on the Bass Strait Islands.

As part of the annual standing offer price approval process in June prior to the commencement of each of Periods 1, 2 and 3 the Economic Regulator will approve the NTB to be used in calculating the NMR for the applicable Period.

### 3.3 Amending or revoking the Determination

Section 40AA(3) of the ESI Act enables the Economic Regulator to amend or revoke a determination. Regulation 17 of the Pricing Regulations enables the Economic Regulator to amend or revoke a determination under section 40AA(3) of the ESI Act where:

- the determination was made on the basis of false or misleading information;
- there was a material error in the determination; or
- a retailer is materially adversely affected by an event beyond the retailer's control.

Regulations 17 and 18 of the Pricing Regulations set out the criteria that must be satisfied and the process that must be followed in amending or revoking a determination.

### 3.4 Calculating the NMR for Periods 1, 2 and 3

In previous determinations, the Economic Regulator approved an NMR for the first period of the regulatory period and calculated indicative NMRs for each of the remaining periods. The Economic Regulator then approved the actual NMR for the remaining periods of the regulatory period through the annual standing offer price approval process.

However, unlike earlier determinations (prior to the 2013 Standing Offer Determination) where the majority of the NMR components were fixed for the duration of the regulatory period covered by the relevant determination, the majority of the NMR components for the 2016 Standing Offer Determination are subject to change in Period 2 and Period 3. Furthermore, forecasts of network, metering and AEMO costs and inputs rely on third parties providing information which is usually not available until after the Economic Regulator's draft and final investigation reports have been published.

There is little value therefore in calculating indicative NMRs for future periods, as there is likely to be a significant divergence between indicative and actual values. For this reason, the Economic Regulator is proposing not to calculate indicative NMRs or

provide values for the NMR components for Periods 2 and 3 of the regulatory period and will calculate an illustrative NMR only for Period 1.

The actual NMR to apply during Period 1 will be determined during the annual standing offer price approval process in June 2016 to reflect the most up-to-date information available. This approach has the objective of minimising the under/over recoveries in subsequent periods as the respective costs or benefits may be borne by, or imposed on, different customers to those who purchased electricity under a standard retail contract in the previous period.

Table 3.3 sets out the Economic Regulator’s proposed approach to ascertaining the value of the various NMR components.

### 3.5 Annual standing offer price approval process

Aurora Energy, as a regulated offer retailer, is required to fix its standing offer prices under section 40 of the *Electricity Supply Industry Act 1995* and may also amend its prices under that section.

However, Aurora Energy may not fix or amend its standing offer prices unless the Economic Regulator’s approval has been granted under section 41 of the ESI Act.

In accordance with past practice, the Economic Regulator proposes permitting Aurora Energy to adjust its standing offer prices each year in accordance with the 2016 Standing Offer Determination. The process for approving standing offer prices during the regulatory period covered by the 2016 Standing Offer Determination is set out in the Economic Regulator’s Draft Guideline: *Approval of standing offer prices in accordance with the 2016 Standing Offer Determination*.

### 3.6 Protocol for expressing values

All values in this Draft Report and in the 2016 Standing Offer Draft Determination have been expressed in nominal dollars unless otherwise specified.

### 3.7 Indexation

For the purposes of indexing Aurora Energy’s annual Cost-To-Serve allowances under the 2016 Standing Offer Draft Determination, the Economic Regulator proposes applying a prescribed inflationary factor calculated as follows:

$$(a) \text{ Period 2} = \left( \frac{\text{CPI}_{\text{Mar}2017} + \text{CPI}_{\text{Dec}2016} + \text{CPI}_{\text{Sep}2016} + \text{CPI}_{\text{Jun}2016}}{\text{CPI}_{\text{Mar}2016} + \text{CPI}_{\text{Dec}2015} + \text{CPI}_{\text{Sep}2015} + \text{CPI}_{\text{Jun}2015}} \right)$$

$$(b) \text{ Period 3} = \left( \frac{\text{CPI}_{\text{Mar}2018} + \text{CPI}_{\text{Dec}2017} + \text{CPI}_{\text{Sep}2017} + \text{CPI}_{\text{Jun}2017}}{\text{CPI}_{\text{Mar}2016} + \text{CPI}_{\text{Dec}2015} + \text{CPI}_{\text{Sep}2015} + \text{CPI}_{\text{Jun}2015}} \right)$$

The subtext (for example, ‘CPI<sub>Mar 2016</sub>’) when used in relation to the above means the Consumer Price Index (CPI) for the March quarter in year 2016.

**Table 3.3 NMR components - Economic Regulator’s proposed methodology**

Component	Methodology		
	Period 1	Period 2	Period 3
Load	Aurora Energy will be required to submit details of its forecast load for Period 1 in its pricing proposal as part of the annual standing offer price approval process.	Aurora Energy will be required to submit details of its forecast load for Period 2 in its pricing proposal as part of the annual standing offer price approval process.	Aurora Energy will be required to submit details of its forecast load for Period 3 in its pricing proposal as part of the annual standing offer price approval process.
Customer numbers	Aurora Energy will be required to submit details of its forecast customer numbers for Period 1 in its pricing proposal as part of the annual standing offer price approval process.	Aurora Energy will be required to submit details of its forecast customer numbers for Period 2 in its pricing proposal as part of the annual standing offer price approval process.	Aurora Energy will be required to submit details of its forecast customer numbers for Period 3 in its pricing proposal as part of the annual standing offer price approval process.
Distribution loss factor (DLF)	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.
Marginal loss factor (MLF)	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.	The Economic Regulator proposes adopting loss factors based on AEMO’s published loss factors for the relevant period.
Wholesale electricity price (WEP)	The Economic Regulator proposes applying a weighted average methodology, as specified in section 4.4 and as further explained in the Economic Regulator’s Standing Offer Price Approval Guideline, to derive a WEP for Period 1 as part of the annual standing offer price approval process in June 2016.	The Economic Regulator proposes applying a weighted average methodology, as specified in section 4.4 and as further explained in the Economic Regulator’s Standing Offer Price Approval Guideline, to derive a WEP for Period 2 as part of the annual standing offer price approval process in June 2017.	The Economic Regulator proposes applying a weighted average methodology, as specified in section 4.4 and as further explained in the Economic Regulator’s Standing Offer Price Approval Guideline, to derive a WEP for Period 3 as part of the annual standing offer price approval process in June 2018.

Component	Methodology		
	Period 1	Period 2	Period 3
Wholesale electricity costs (WEC)	The Economic Regulator proposes estimating the WEC for Period 1 based on the customer load figure submitted by Aurora Energy as part of the annual standing offer price approval process, the DLF for 2016-17 and the wholesale electricity price as explained above.	The Economic Regulator proposes estimating the WEC for Period 2 based on the customer load figure submitted by Aurora Energy as part of the annual standing offer price approval process, the DLF for 2017-18 and the wholesale electricity price as explained above.	The Economic Regulator proposes estimating the WEC for Period 3 based on the customer load figure submitted by Aurora Energy as part of the annual standing offer price approval process, the DLF for 2018-19 and the wholesale electricity price as explained above.
Metering charges	The Economic Regulator proposes adopting metering costs based on the outcomes of its analysis of forecast metering charges provided by Aurora Energy for Period 1 during the annual standing offer price approval process..	The Economic Regulator proposes adopting metering costs based on the outcomes of its analysis of forecast metering charges provided by Aurora Energy for Period 2 during the annual standing offer price approval process.	The Economic Regulator proposes adopting metering costs based on the outcomes of its analysis of forecast metering charges provided by Aurora Energy for Period 3 during the annual standing offer price approval process.
Network costs	The Economic Regulator proposes applying network costs based on the outcomes of its analysis of forecast network costs provided by Aurora Energy for Period 1 during the annual standing offer price approval process.	The Economic Regulator proposes applying network costs based on the outcomes of its analysis of forecast network costs provided by Aurora Energy for Period 2 during the annual standing offer price approval process.	The Economic Regulator proposes applying network costs based on the outcomes of its analysis of forecast network costs provided by Aurora Energy for Period 3 during the annual standing offer price approval process.
RET costs	<p>Pending the Clean Energy Regulator's publication of the renewable power percentage (RPP) for the 2016 calendar year, for this Draft Report the Economic Regulator proposes applying the RPP formula outlined in section 39(2)(b) of the <i>Renewable Energy (Electricity) Act 2000 (Cwlth)</i> to calculate the forecast RPP for the second half of the 2016 calendar year and the first half of the 2017 calendar year</p> <p>The Economic Regulator proposes Aurora Energy adopt the Clean Energy Regulator's non-binding small-scale technology percentages (STPs) for both the second half of</p>	<p>The Economic Regulator proposes adopting the Clean Energy Regulator's published RPP for the 2017 calendar year.</p> <p>The Economic Regulator proposes adopting the Clean Energy Regulator's binding and non-binding STPs for the second half of the 2017 calendar year and the first half of the 2018 calendar year respectively.</p> <p>The Economic Regulator proposes adopting the latest available forecast price for both small-scale technology</p>	<p>The Economic Regulator proposes adopting the Clean Energy Regulator's published RPP for the 2018 calendar year.</p> <p>The Economic Regulator proposes adopting the Clean Energy Regulator's binding and non-binding STPs for the second half of the 2018 calendar year and the first half of the 2019 calendar year respectively.</p> <p>The Economic Regulator proposes adopting the latest available forecast price for both STCs and LGCs.</p>

Component	Methodology		
	Period 1	Period 2	Period 3
	<p>the 2016 calendar year and the first half of the 2017 calendar year.</p> <p>The Economic Regulator proposes Aurora Energy adopt the latest available forecast price for both STCs and LGCs.</p> <p>The Economic Regulator proposes Aurora calculates forecast RET costs as specified in section 7.3.5.</p>	<p>certificates (STCs) and large-scale generation certificates (LGCs).</p> <p>The Economic Regulator proposes Aurora Energy calculates forecast RET costs as specified in section 7.3.5.</p>	<p>The Economic Regulator proposes Aurora Energy calculates forecast RET costs as specified in section 7.3.5.</p>
AEMO charges	<p>The Economic Regulator proposes Aurora Energy apply AEMO's published charges for 2016-17 to the Period 1 customer load as part of the annual standing offer price approval process. In addition, Aurora Energy will be required to submit details of its forecast ancillary fees costs for Period 1 in its pricing proposal as part of the annual standing offer price approval process.</p>	<p>The Economic Regulator proposes Aurora Energy apply AEMO's published charges for 2017-18 to the customer load provided by each regulated offer retailer as part of the annual standing offer price approval process. In addition, Aurora Energy will be required to submit details of its forecast ancillary fees costs for Period 2 in its pricing proposal as part of the annual standing offer price approval process.</p>	<p>The Economic Regulator proposes Aurora Energy apply AEMO's published charges for 2018-19 to the customer load provided by each regulated offer retailer as part of the annual standing offer price approval process. In addition, Aurora Energy will be required to submit details of its forecast ancillary fees costs for Period 3 in its pricing proposal as part of the annual standing offer price approval process.</p>
Cost-To-Serve	<p>The Economic Regulator proposes adopting the outcomes from its review of Aurora Energy's operating costs in estimating Aurora Energy's Cost-To-Serve for Period 1 as specified in Chapter 6.</p>	<p>The Economic Regulator proposes adopting the outcomes from its review of Aurora Energy's operating costs in estimating Aurora Energy's Cost-To-Serve for Period 2 as specified in Chapter 6.</p>	<p>The Economic Regulator proposes adopting the outcomes from its review of Aurora Energy's operating costs in estimating Aurora Energy's Cost-To-Serve for Period 3 as specified in Chapter 6.</p>
Retail margin	<p>The Economic Regulator proposes adopting the outcomes from an interjurisdictional benchmarking exercise in estimating the retail margin for Period 1 as specified in Chapter 5.</p>	<p>The Economic Regulator proposes adopting the outcomes from an interjurisdictional benchmarking exercise in estimating the retail margin for Period 2 as specified in Chapter 5.</p>	<p>The Economic Regulator proposes adopting the outcomes from an interjurisdictional benchmarking exercise in estimating the retail margin for Period 3 as specified in Chapter 5.</p>



## 4 WHOLESALE ELECTRICITY COSTS

The wholesale cost of electricity is a significant component of the retail price of electricity.

A key input into the calculation of the NMR, the estimate of the WEC is based on the WEP, forecast load and network loss factors.

This Chapter discusses the Economic Regulator's calculation of the WEP and the resultant WEC to be included in Aurora Energy's NMR in respect of small customers under the 2016 Standing Offer Determination.

### 4.1 Introduction

To supply their customers, electricity retailers must purchase wholesale electricity through the NEM which is a spot market<sup>1</sup>. Electricity prices are highly volatile with the price per megawatt hour (MWh) fluctuating between a Market Floor Price (MFP) of - \$1 000 and the Market Price Cap (MPC) of \$13 800<sup>2</sup>.

The volatile spot market exposes retailers to significant price risk. Retailers supply electricity to customers at an agreed fixed price for a specified period while potentially paying much higher prices for electricity in the spot market. To manage the price risk associated with large movements in the spot price electricity retailers enter into a range of financial hedge contracts<sup>3</sup>. Generally, counterparties in financial hedge contracts are generators which, like retailers, are also exposed to the volatile spot market.

Financial hedge contracts effectively lock in the price for a certain volume of electricity in advance providing price certainty to both parties to the contract. To enable them to enter into a financial hedge contract retailers must estimate how much electricity their customers use (load) and when their customers use electricity ie their consumption pattern (load profile). Changes in customer load and/or load profile exposes retailers to volume risk ie the volume in financial hedging contracts does not match the actual volume of electricity retailers must purchase to match their customers' demand.

When demand is higher than forecast, retailers must purchase the additional electricity in the spot market without having a financial hedge contract in place to offset the price of the additional volume of electricity purchased. Retailers can manage their

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<sup>1</sup> A spot market is a commodities or securities market in which goods are sold for cash and delivered immediately.

<sup>2</sup> The MPC is set by a reliability panel convened by the AEMC and is \$13 800/MWh for the 2015-16 financial year.

<sup>3</sup> Financial hedge contracts are also referred to as 'financial contracts' and 'derivatives contracts'.

exposure to price and volume risk by entering into a Load Following Swap (LFS). A LFS is a financial hedge contract where the volume in the contract is based on a specified, pre-defined load profile.

## 4.2 Investigations prior to the 2013 Standing Offer Price Investigation

Following Tasmania's entry into the NEM in May 2005 and until March 2007, the *Electricity Supply Industry (Price Control) Regulations 2003* (Price Control Regulations 2003) required the Economic Regulator to set the price of electricity for non-contestable customers with reference to a regulated contractual arrangement between Aurora Energy and Hydro Tasmania.

For the 2007 determination<sup>4</sup> the Economic Regulator was required to adopt a wholesale energy price as specified in the *Electricity Supply Industry (Price Control) Amendment Regulations 2007* in calculating the NMR. The energy price was a forward electricity price determined by a consultant engaged by the Government.

For the 2010 Determination the *Electricity Supply Industry (Price Control) Amendment Regulations 2010* specified factors and principles that the Economic Regulator was required to take into account in setting the energy supply cost allowance for calculating the NMR. The Economic Regulator was required to set the energy supply cost allowance at least equal to the LRMC of a notional new generator supplying electricity to non-contestable customers in Tasmania.

The Economic Regulator engaged a consultant to calculate an estimate of the LRMC of supplying the Tasmanian non-contestable load for the three financial years from 2010-11 to 2012-13 inclusive.<sup>5</sup> The Economic Regulator included a mechanism in the 2010 Determination that provided for an annual adjustment to the energy supply cost allowance and therefore retail tariffs for non-contestable customers if there was material change ie five per cent or more, in the LRMC estimate provided in the 2010 Determination. The annual energy adjustment factor was included to address the impact of the impending introduction of a carbon emission trading scheme by the Australian Government.

The Government amended the *Price Control Regulations 2003* in May 2012 to change the methodology for calculating the energy supply cost allowance for the approval of retail tariffs for 2012-13 (the final year of the 2010 Determination). The *Electricity Supply Industry (Price Control) Amendment Regulations 2012* required the Economic Regulator to calculate the energy supply cost allowance based on the average of:

- the LRMC of electricity generation by a notional electricity generator to supply electricity to non-contestable customers on mainland Tasmania; and

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<sup>4</sup> *Investigation into Electricity Supply Industry Pricing Policies: Declared Electrical Services Pricing Determination*, issued 30 October 2007 as amended 10 December 2007

<sup>5</sup> IES, *Review of Wholesale Energy Price for period 2010-2013*, 7 May 2010



- the price Aurora Energy would pay to purchase electricity in Victoria and transport the electricity to mainland Tasmania to supply non-contestable customers on mainland Tasmania.

The Economic Regulator engaged a consultant, IES Pty Ltd<sup>6</sup> to re-calculate energy supply costs for 2012-13 based on the amended regulations and taking into account the introduction of the Carbon Pricing Mechanism on 1 July 2012.

Additionally, as part of its “Electricity for the Future” reforms also announced in May 2012, the Government indicated it would ‘roll forward’ the 2010 Determination into a new determination (the 2013 Determination) which would cover the six months from 1 July 2013 to 31 December 2013 to coincide with the start of full retail competition (FRC) on 1 January 2014.

To allow this to occur, the Government amended *the Electricity Supply Industry (Price Control and Related Matters) Regulations 2012* (Price Control Regulations 2012) in October 2012 to require the Economic Regulator to calculate the energy price for the 2013 Determination as the energy price adopted for the 2012-13 retail tariffs adjusted for inflation.

### 4.3 2013 Standing Offer Pricing Investigation

As part of the May 2012 “Energy for the Future” reform package, it was announced that full retail competition would commence from 1 January 2014. As part of these reforms, Aurora Energy’s customers were to be offered for sale in two separate bundles during the second half of the 2013 calendar year.

As standing offer prices were to be available for small customers who choose not to enter into a market retail contract the Economic Regulator was required to determine standing offer prices for each bundle of customers. The two determinations were to apply from 1 January 2014 to 30 June 2016.

Ordinarily, an existing retailer would make a submission to Economic Regulator providing sufficient information to enable the Economic Regulator to conduct its investigation and to make its determination. The then Government’s intention was for Aurora Energy to stop electricity retailing from 1 January 2014, consequently Aurora Energy did not make a submission. However, as any new retailers would not have been known until later in the 2013 calendar year, after the determinations were made, the then Government made the required submission to the Economic Regulator. The Economic Regulator made the two determinations on 29 July 2013.

In September 2013, the then Government announced that it was deferring the sale of Aurora Energy’s customer base and that retail competition would commence on 1 July 2014.

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<sup>6</sup> IES, *Impact of the carbon pricing mechanism on the wholesale electricity price*, 4 April 2012.

In response, the Economic Regulator revoked one of the two 2013 Standing Offer Determinations it had made and amended the remaining Determination to apply to all small customers. The amendments did not change how the WEC or the WEP was calculated.

#### 4.3.1 Wholesale pricing model

Hydro Tasmania is the dominant generator in Tasmania and consequently is the sole provider of financial hedge contracts for the Tasmanian region of the NEM. In response to the Expert Panel's observations about Hydro Tasmania's market power<sup>7</sup> and the specific circumstances of the Tasmanian market<sup>8</sup>, the Government at the time mandated, through amendments to the ESI Act, that Hydro Tasmania must offer a number of regulated financial hedge contracts with the aim of providing retailers in Tasmania with similar conditions and levels of risk as faced by retailers operating in other regions of the NEM. The ESI Act requires Hydro Tasmania to offer four regulated financial hedge contracts, including a LFS, which retailers operating in Tasmania may enter into with Hydro Tasmania.

Treasury's external consultants, the Concept Consulting Group, recommended including a LFS product in the regulated financial hedge contracts that Hydro Tasmania must offer. This recommendation was made to counter the perception that, unlike the situation that exists in other NEM regions, Hydro Tasmania had both the incentive and means to spike spot prices thereby exposing retailers to potentially significant price risk.<sup>9</sup>

Section 40AB of the ESI Act requires the Economic Regulator to estimate the operational costs of a regulated offer retailer in providing standard retail services. The section also specifies that operational costs include the WEC incurred by a regulated offer retailer.

Section 40AB(3) of the ESI Act also states that:

- (3) For the purposes of this section, the wholesale electricity costs of a regulated offer retailer in relation to the provision of standard retail services consist of the costs of the retailer in purchasing electricity for the purposes of providing those services, including any adjustment to the costs that would be made if the regulated offer retailer and the Hydro-Electric Corporation were to enter into a contract that –

- (a) was a contract in an approved standard form determined under section 43G(1) for a load following swap; and

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<sup>7</sup> Electricity Supply Industry Expert Panel, *An independent review of the Tasmanian Electricity Supply Industry*, Final Report, 29 March 2012, page 88.

<sup>8</sup> Ibid, Appendix 5.

<sup>9</sup> Concept Consulting Group Ltd, *Regulation of Hydro Tasmania wholesale contract prices*, Technical Report prepared for the Tasmanian Department of Treasury and Finance, 7 March 2013, page 14.

(b) contained prices calculated in accordance with the approved methodology in relation to contracts in that approved standard form; and

(c) related to the same number of units of electricity as the number of units of electricity purchased by the retailer for the purposes of providing those services.

Consequently, for the 2013 Standing Offer Determination the Economic Regulator was required, under the amended ESI Act, to calculate a wholesale energy price based on the regulated LFS.

The details of each regulated financial hedge contract, including how prices as calculated is specified in a Wholesale Contract Regulatory Instrument<sup>10</sup>. The Instrument outlines a rules based methodology for calculating the prices of the regulated financial hedge contracts and is referred to as the “wholesale pricing model”. The wholesale pricing model is a Microsoft Excel model developed for Treasury by Concept Consulting.

The model was provided to the Economic Regulator prior to the release of the Wholesale Contract Regulatory Instrument in December 2013. Treasury indicated that the model complied with the principles that would be contained in the Wholesale Contract Regulatory Instrument and provided the Economic Regulator with a copy of an internal audit certificate which Concept Consulting had provided to Treasury. The internal audit certificate indicated that, in the internal auditor’s opinion, the wholesale pricing model “...faithfully implements the pricing methodology set out in part 3 of the Wholesale Contract Regulatory Instrument, and is suitable for use in deriving fixed prices for Approved Financial Risk Contracts, given suitable input information.”

The Economic Regulator subsequently used the wholesale pricing model to calculate the price of regulated LFSs for each financial year covered by the 2013 Determination which were then deemed to be the respective WEPs as shown in Table 4.1.

**Table 4.1 2013 Standing Offer Determination - WEP<sup>11</sup>**

	Period 1	Period 2	Period 3
WEP (c/kWh)	7.4970	6.2623	5.9949

<sup>10</sup> A copy of the Instrument and more information on wholesale regulation is available on the Economic Regulator’s website: [www.economicregulator.tas.gov.au](http://www.economicregulator.tas.gov.au)

<sup>11</sup> The WEP is referred to as the ‘Regulated LFS price’ in Table 3.1 of the Government’s submission.

#### 4.4 WEP methodology for the 2013 Standing Offer Determination

At part of the 2013 Standing Offer investigation the Economic Regulator was required by the then Government to use a point-in-time estimate of forward LFS prices as the WEP for period 1 based on the output from the wholesale pricing model.

With respect to Periods 2 and 3, the 2013 Standing Offer Determination stated that:

The Regulator will estimate revised wholesale electricity prices for Period 2 and Period 3 during the annual standing offer price approval process to account for the difference between the forecast wholesale electricity prices for Period 2 and Period 3 outlined in Table 3 and the revised prices calculated for those periods in accordance with a methodology that complies with the principles contained within the Wholesale Contract Regulatory Instrument.

In reviewing the WEP for Period 2 the Regular took into consideration feedback received from retailers<sup>12</sup> that a point-in-time WEP may present risks for retailers in Period 2 and Period 3 as:

- a retailer is unlikely to seek to hedge its exposures by purchasing a single block of contracts at one point in time; and
- even if a retailer chose to adopt this approach, Hydro Tasmania may not be obligated to contract for such a volume under the volume release mechanism in the Wholesale Contract Regulatory Instrument.

The Economic Regulator also recognised that a retailer adopting a prudent hedging approach was more likely to progressively build its contract book over a period of time.

The Economic Regulator subsequently developed the following weighted average methodology for calculating the WEP for each of Period 2 and Period 3:

1. For each week of each quarter of the relevant period weight the historical regulated LFS price by the applicable weekly Absolute Minimum Capacity Offer Volume. If no LFS price is offered in a given week then the volume defaults to zero;
2. Use the point-in-time regulated LFS price for each quarter at the time that the Economic Regulator calculates the WEP for all future weeks remaining in each quarter; and
3. Weight the weekly future regulated LFS prices in each quarter by the applicable weekly Absolute Minimum Capacity Offer Volume. The Absolute Minimum Capacity Offer Volume is defined in clause 28 of the Instrument to mean, for a Contract Quarter:

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<sup>12</sup> During the Government's sale process in connection with Aurora's customer base in late 2013 potential purchasers raised concerns about the impact of the WEP being revised for Period 2 and 3 on a point-in-time basis.

(a) The amount specified in the table in Item 2 of Schedule 1 as the Absolute Minimum Capacity Offer Volume for that Contract Quarter; or

(b) such other amount as is determined by the Regulator from time to time, being the amount the Regulator considers is necessary to ensure that Authorised Retailers are able to access a sufficient Capacity Volume of Approved Financial Risk Contracts to hedge load attributable to their Small Customers in that Contract Quarter.

The Economic Regulator considered that the use of the Absolute Minimum Capacity Offer Volumes is appropriate as the volumes are intended to provide retailers with sufficient regulated contracts to meet Tasmania's small customer load. Furthermore, as the volumes are weekly, prices can be incorporated weekly without creating a bias towards a particular week.

The Economic Regulator also considered that point-in-time price is the best estimate of future prices for each quarter as it incorporates all the information available to the market at the time. While conceding that a point-in-time estimate may be subject to outlier bias the Economic Regulator considers that a market based approach is preferable in terms of simplicity and transparency.<sup>13</sup>

#### 4.5 WEP methodology for the 2016 Standing Offer Determination

The Economic Regulator is proposing to continue with the current weighted average methodology (as described in section 4.4) for the 2016 Standing Offer Determination. The methodology provides a simple and transparent method for calculating the WEP and complies with of section 40AB(3) of the ESI Act.

Applying the weighted average methodology as at 19 January 2016 the Economic Regulator's estimated WEP for Period 1 of the determination is shown in Table 4.2.

**Table 4.2 Economic Regulator's proposed decision – Wholesale Electricity Price**

	Period 1
WEP (c/kWh)	6.1091

The actual WEP to apply for each of Period 2 and Period 3 will be determined as part of the annual standing offer price approval process in June each year prior to the commencement of each of those periods. The calculated WEPs will then be used to calculate the WEC and the NMR for each of Period 2 and Period 3.

<sup>13</sup> For a more detailed discussion on the Economic Regulator's approach to developing the WEP methodology refer to the Economic Regulator's [Draft 2013 Standing Offer Price Approval Guideline - Consultation Paper](#).

## 4.6 Loss factors

As electricity flows through the transmission and distribution systems, energy is lost due to electrical resistance and the heating of conductors. Due to these losses the amount of electricity generated must be greater than actual demand. To account for the difference between the demand for electricity (load) and the amount of electricity generated to meet that demand, the load is ‘grossed up’ by one or more ‘loss factors’.

The DLF represents the average energy loss incurred when electricity is transmitted over the distribution network. Distribution Network Service Provider’s determine the DLFs to apply in each financial year and, after approval from the AER, provide the DLFs to AEMO for publication. AEMO is required to publish DLFs by 1 April each year to apply to the following financial year.

The MLF<sup>14</sup> represents the average energy loss incurred when electricity is transmitted over the transmission network. AEMO determines and publishes MLFs for each NEM region for each financial year. AEMO publishes MLFs in late May/early June each year to apply to the following financial year.

The DLF and MLF the Economic Regulator adopted in calculating the WEC is shown in Table 4.3. The loss factors are the approved loss factors, as published by AEMO, in respect to the 2015-16 financial year.

**Table 4.3 Economic Regulator’s proposed decision – Loss factors**

	Period 1
DLF	1.0517
MLF	1.0015

As part of the annual standing offer price approval process in June prior to the commencement of each of Period 1, Period 2 and Period 3 Aurora Energy will submit for the Economic Regulator’s approval a weighted average DLF and MLF which will be used in calculating the WEC and the NMR for each Period.

## 4.7 Economic Regulator’s proposed decision – Wholesale Electricity Costs

The Economic Regulator proposes calculating the WEC as follows:

$$WEC_y = (\text{forecast load}_y \times WEP_y \times DLF_y \times MLF_y)$$

Where:

forecast load<sub>y</sub> = an estimate of the volume of electricity a retailer must purchase in the spot market to supply small customers for period<sub>y</sub> (forecast load is discussed in Chapter 3)

<sup>14</sup> Also referred to as the TLF (Transmission Loss Factor)

$WEP_y$	=	wholesale electricity price for period $_y$ , as derived by the Economic Regulator using the methodology described in sections 4.4 and 4.5
$DLF_y$	=	load weighted average distribution loss factor for period $y$ , approved by the Economic Regulator
$MLF_y$	=	load weighted average marginal loss factor at the regional reference node for Tasmania for period $_y$ , approved by the Economic Regulator

The Economic Regulator's estimate of the WEP and the WEC for Aurora Energy for Period 1 of the regulatory period covered by the 2016 Standing Offer Determination is shown in Table 4.4.

**Table 4.4 Economic Regulator's proposed decision - Wholesale Electricity Costs for the illustrative NMR**

	<b>Period 1</b>
Forecast Load (GWh)	1 869
WEP (\$/MWh)	6.1091
DLF	1.0517
MLF	1.0015
<b>WEC (\$M)</b>	<b>120.24</b>





## 5 RETAIL MARGIN

### 5.1 Introduction

The retail margin is intended to compensate an electricity retailer for the investment it makes in its retail business and for the risks it assumes in providing retail services to standing offer customers.

This Chapter discusses the Economic Regulator's consideration of, and proposed decision on, the net retail margin to be provided to Aurora Energy during the regulatory period covered by the 2016 Standing Offer Determination.

### 5.2 Context

#### 5.2.1 Electricity Supply Industry Act and Pricing Regulations

The ESI Act provides the Economic Regulator with both broad and specific guidance in relation to exercising its powers and functions under the ESI Act. Sections 6(2) and 40AB(1) of the ESI Act are particularly relevant for the Economic Regulator to consider in estimating an appropriate retail margin to apply to an electricity retailer operating in Tasmania.

Specifically, section 6(2) of the ESI Act specifies that in exercising powers and functions under the Act the Economic Regulator is to promote efficiency and competition in the electricity supply industry and protect the interests of consumers of electricity.

Further, section 40AB(1) of the ESI Act outlines the principles to be taken into account in making determinations of maximum prices for regulated offer retailers. Relevant to determining an appropriate retail margin, the Economic Regulator specifically notes the principles requiring it to set maximum prices that:

- (a) estimate the operational costs of the retailer in providing standard retail services; and
- (b) take into account the principle that the maximum prices that may be imposed by the retailer under standard retail contracts in respect of small customers are to be such as will enable the retailer, after the operational costs are taken into account, to make a reasonable return on its investment in respect of the provision of standard retail services, taking into account the risk of making that investment; and
- (c) take into account the principle that small customers should be protected from the adverse effects of the exercise of substantial market power by –
  - (i) the Hydro-Electric Corporation; or
  - (ii) the regulated offer retailer in relation to prices, pricing policies and standards of service in respect of the provision of standard retail services by the regulated offer retailer; and

- (d) take into account the principle that, for the purpose of benefiting the public interest, there is a need for efficiency in the provision of standard retail services.

The Economic Regulator is also to have regard to Regulation 13 of the Pricing Regulations in making a price-regulated retail service price determination. Of particular relevance to the Economic Regulator's consideration of the retail margin for a regulated offer retailer, Regulation 13 requires the Economic Regulator to consider:

- (a) any interstate or international benchmarks for prices, costs, revenues and return on assets in bodies providing a service similar to the services, under a standard retail contract with a small customer, to which the determination relates;
- (b) the effects of inflation;
- (c) the impact on pricing policies of any borrowing, capital, dividend, and taxation, obligations of the regulated offer retailer, including obligations to renew or increase assets;
- (d) the quality of the provision of services to small customers under standard retail contracts of the regulated offer retailer;
- (e) any licence, obligation or retailer authorisation under the Act, any regulations made under the Act, the National Energy Retail Law (Tasmania), the National Energy Retail Regulations (Tasmania), the National Energy Retail Law (Tasmania) Act 2012 and any regulations made under that Act, that apply, or are likely to apply, to the regulated offer retailer;
- (f) the Code;
- (g) the National Electricity Rules;
- (h) any costs (including capital expenditure) incurred by the regulated offer retailer at the direction of the Regulator;
- (i) the public interest;
- (j) any other matter the Regulator considers relevant.

### 5.2.2 Basis of the allowance

An electricity retailer's gross margin is equal to its revenue less energy purchase costs, network charges and other fees ie it is inclusive of retail operating costs (cost-to-serve). The net retail margin is equal to the gross margin less the cost-to-serve<sup>1</sup>.

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<sup>1</sup> The Economic Regulator's proposed decision on Aurora Energy's Cost-To-Serve is outlined in Chapter 6 of this Draft Report.

The majority of recent regulatory decisions have allowed a retail margin based on net margin as a percentage of earnings before interest, tax and depreciation (EBITDA) rather than earnings before interest and tax (EBIT).

An EBITDA retail margin is intended to permit the recovery of:

- return on capital invested;
- financing expenses;
- depreciation charges; and
- risk associated with bad debts, energy purchase risk and volume risks.

There are generally two approaches to estimating the retail margin:

- undertaking a bottom-up and/or expected returns analysis of the retailer's financial position to determine an appropriate retail margin; and/or
- determining the appropriateness of the retailer's margin by benchmarking against margins adopted in other jurisdictions.

### 5.3 Previous retail price investigations and current approach

In previous investigations, the Economic Regulator adopted a benchmarking approach to setting the retail margin, taking account of the risks Aurora Energy faced in delivering retail services to the non-contestable customer base. That is, the retail margin took into account the differences in risks faced by Aurora Energy compared to the risks faced by the benchmark retailers.

The Economic Regulator adopted this approach because it was not convinced at the time that an alternative analysis methodology such as a detailed bottom-up approach would deliver significant benefits over a benchmarking approach. This approach has been adopted again for this investigation, as the Economic Regulator remains of the view that the costs of the alternative approach likely outweigh the benefits. The Economic Regulator notes that South Australia ceased regulating standing offer prices in 2013 and New South Wales will cease doing so as of 1 July 2016. The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) conducted the most recent in-depth retail margin analysis in 2012-13. In the future, the Economic Regulator considers that it may find it difficult to benchmark against the decreasing number of NEM jurisdictions that regulate standing offer prices and may need to conduct a bottom-up analysis to establish the retail margin. Noting this, for this investigation, the Economic Regulator has considered decisions made in New South Wales, the Australian Capital Territory and Queensland.

A summary of the Economic Regulator's three most recent retail margin decisions follows.

### 5.3.1 2007 Determination

Aurora Energy has faced the progressive introduction of retail contestability, with four tranches of customers becoming contestable since 1 July 2006. The decision in the 2007 Investigation regarding Aurora Energy's retail margin was made in the context of:

- an increasing number of customers becoming contestable over the regulatory period; and
- the arrangements in place for the setting of the energy cost allowance for that investigation.

The retail margin provided in the 2007 Determination was three per cent on sales (this was expressed as 3.09 percent of total costs). In its 2007 Final Report, the Economic Regulator acknowledged that the retail margins on total costs set in other jurisdictions at the time of the 2007 Investigation were between four and five per cent. However, the Economic Regulator noted that the context in which those margins were set was different to that applying for its investigation. That is, regulators in other jurisdictions were setting margins for the purpose of determining standing offer prices for small customers in the context of full retail contestability and in the absence of a regulated energy price for small customers.

Aurora Energy, as the monopoly provider of retail services to non-contestable customers, was not exposed to the same risks as other retailers operating in a fully contestable market. Nor was Aurora Energy exposed to the energy price risk faced by retailers in other jurisdictions. Given this, the Regulator considered that a margin at the top end of the range was not appropriate at that time.

The Regulator also undertook a return-on-investment analysis which suggested that a margin of three per cent on sales would be sufficient to provide Aurora Energy with an appropriate return on its assets, sufficient compensation for the risks it faced and for the recovery of depreciation charges.

### 5.3.2 2010 Determination

The Economic Regulator's decision in the 2010 Investigation regarding Aurora Energy's retail margin was influenced primarily by the arrangements put in place by the Government for the setting of the energy cost allowance for that investigation and Aurora Energy's investment in a new billing system.

In its submission as part of that investigation, Aurora Energy proposed that its retail margin allowance should be based on the 5.4 per cent EBITDA margin determined by IPART for NSW retailers, adjusted for Aurora Energy's particular circumstances. In this regard, Aurora Energy referred to impacts arising from the following issues that is considered the Regulator should take into account in setting its retail margin:

- exposure to risk associated with energy price fluctuations;
- an increase in depreciation expenses associated with the implementation of Aurora Energy's (then) new customer care and billing (CC&B) system; and

- an increase in the cost of debt and a larger share of total debt as a result of the capital expenditure on Aurora Energy's new CC&B system.

In making its decision, the Economic Regulator considered the margins provided to standard or franchised retailers in the other NEM jurisdictions and considered the risks Aurora Energy would be exposed to over the (then) upcoming period.

The Economic Regulator approved a margin of 3.7 per cent on sales (3.8 per cent on total costs) made up of:

- a base allowance of 3.0 per cent margin on sales (3.09 per cent on costs); and
- an additional allowance of 0.7 per cent to cover increased depreciation and financing costs.

The approved margin was lower than the margin provided in other NEM jurisdictions (by between 1.2 per cent and 1.6 per cent) as the Economic Regulator determined that Aurora Energy did not face any risk with respect to:

- the energy price (due to its contractual relationship with Hydro Tasmania); or
- volume changes arising from customers switching retailers.

### 5.3.3 2013 Determination

For the 2013 Determination, the Economic Regulator accepted that the regulated offer retailers (it was intended that Aurora Energy's customer base would be divided and sold to two new retailers) would face additional risks (over and above those previously faced by Aurora Energy) associated with:

- the energy price (ie compared to the then situation, the extent of the regulated contractual arrangement between Hydro Tasmania and the individual regulated offer retailers would be on a lesser scale); and
- customers moving between retailers.

As a result, the Economic Regulator considered that the retail margin provided to the regulated offer retailers should be higher than the retail margin provided to Aurora Energy in the past.

The Economic Regulator considered it appropriate to apply a retail margin of 5.7 per cent based on benchmarking of recent decisions made by regulators in other NEM jurisdictions. However the Economic Regulator also considered that the benchmark retail margin should be adjusted to reflect differences in risk faced by retailers operating in the Tasmanian market ie risks associated with energy price, customer volume and uncertainty regarding tax event and changes to the regulatory framework.

After assessing these risks, the Economic Regulator approved the following retail margins for each of the periods of the regulatory period covered by the 2013 Standing Offer Determinations:

- a) Period 1: retail margin of 5.1 per cent (ie a reduction of 0.6 per cent to account for the prohibition on switching for the first three months and a limit on switching on for the second three months); and
- b) Period 2: retail margin of 5.5 per cent (ie a reduction of 0.2 per cent to account for the limit on switching for the first six months of the 12 month period).

On 26 September 2013, the Tasmanian Government at that time announced that it was deferring the sale of Aurora Energy’s customer base and that retail competition would commence on 1 July 2014. Furthermore, from 1 July 2014, there would not be any restrictions on customers switching between retailers.

In response, the Regulator reviewed the 2013 Standing Offer Determinations it made in July 2013 and published an amended retail determination. This amended determination lowered the retail margin for Period 1 to 4.85 per cent, based on the deferral of retail competition, but increased the retail margin for Period 3 to 5.7 per cent reflecting the removal of restrictions on customers switching between retailers for that entire period.

## 5.4 Allowance provided in other jurisdictions

### 5.4.1 New South Wales

Up to 30 June 2016, the Independent Pricing and Regulatory Tribunal (IPART) is responsible for regulating retail electricity prices for around 40 per cent of all residential and small business customers in NSW. These are the prices that the Standard Retailers in NSW charge customers who have not signed a market contract with EnergyAustralia and Origin Energy<sup>2</sup> (the Standard Retailers) or another retailer<sup>3</sup>.

The terms of reference for IPART’s 2013 review of standing offer prices required IPART to focus on the efficient costs of supply in each year of the regulatory period, for each of the standard retailers.

IPART engaged the Strategic Finance Group (SFG) to provide advice on the appropriate retail margin to be adopted over the 2013-16 regulatory period. IPART asked SFG to derive the range using three alternative approaches to estimating the margin, as it did for IPART’s 2010 determination.

The three approaches, and SFG’s results, were as follows<sup>4</sup>:

- an expected return approach, whereby SFG estimated the expected cash flows that a retailer would earn from small customers and the systematic risks associated with such cash flows. It then determined a retail margin that would compensate investors for the risk. SFG’s estimated range for the retail margin

<sup>2</sup> Origin Energy is trading under the Integral Energy and Country Energy brand names.

<sup>3</sup> IPART, *Review of regulated retail prices for electricity - 2013 to 2016 - Electricity — Draft Report*, April 2013, page 1.

<sup>4</sup> IPART, *Review of regulated retail prices for electricity - 2013 to 2016 - Electricity — Final Report*, June 2013, pages 90-93.

using the expected return approach was 3.9 per cent to 4.8 per cent (up from a range of 3.5 per cent to 4.7 per cent in 2010);

- a benchmarking approach, where SFG examined the reported margins of comparable listed firms to establish a range for the retail margin. Using this approach, SFG's estimated range for the retail margin was 6.3 per cent to 6.6 per cent (down from a range of 6.5 per cent to 6.9 per cent in 2010); and
- a bottom-up approach, whereby SFG started with an assumed investment base and cost estimates, then determined the earnings and revenue that would allow the retailer to earn an expected return equal to its estimated cost of capital. SFG's estimated range for the retail margin using the bottom-up approach was 5.6 per cent to 7.0 per cent. Compared to the range of 4.6 per cent to 6.3 per cent in 2010, SFG explained that it had updated its approach since 2010 to account for Origin Energy acquiring Country Energy and Integral Energy, and TRUenergy acquiring EnergyAustralia during 2011<sup>5</sup>.

SFG's range for the retail margin provided by the three approaches was 5.3 per cent to 6.1 per cent of a retailer's total electricity sales (EBITDA)<sup>6</sup>. In selecting a retail margin, IPART also considered whether to set the margin as a fixed percentage or a fixed dollar amount over the determination period.

In its Final Report, IPART explained that in choosing a retail margin of 5.7 per cent, it had taken the mid-point value of the reasonable range recommended by SFG. This was slightly higher than the margin allowed for in the 2010 Determination of 5.4 per cent<sup>7</sup>.

IPART also set the margin as a fixed percentage of each retailer's total costs (rather than as a fixed dollar amount) for the determination period, to ensure that the margin remained consistent with the determination as other cost elements are revised during the determination period.

IPART considered that it was appropriate to compensate standard retailers for the systematic risks that they face through the retail margin allowance, and set an appropriate retail margin that took those risks into account. The systematic risks that IPART considered could impact on retailers and therefore needed to be addressed through the retail margin included<sup>8</sup>:

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<sup>5</sup> In 2011, the state-owned Standard Retailers – EnergyAustralia, Integral Energy and Country Energy – were sold to private companies. TRUenergy bought EnergyAustralia and Origin Energy bought both Integral Energy and Country Energy. Subsequently, TRUenergy changed its name to EnergyAustralia.

<sup>6</sup> SFG calculate this range as the average of the upper and lower bounds of the EBITDA margin ranges estimated for all three approaches.

<sup>7</sup> IPART, *Review of regulated retail prices for electricity - 2013 to 2016 - Electricity — Final Report*, June 2013, page 94.

<sup>8</sup> *Ibid*, p88.

- variation in load profile of the regulated customer base while the risk that retailers' actual regulated load profile may be different to that assumed in setting regulated prices;
- variation in wholesale electricity spot and contract prices, meaning that retailers' actual energy purchase costs may be different to those assumed in setting regulated prices; and
- general business risk, that is, retailers' actual costs and revenues may be different to those assumed in setting regulated prices due to factors such as unexpected changes in interest rates or exchange rates, equipment failures or fraud.

As well as systematic risk, IPART recognised that retailers also face non-systematic risks such as uncertainties about market and policy developments which it addressed through a cost pass through mechanism.

The pass through mechanism (called a pass through event) enabled standard retailers in NSW to pass through the incremental, efficient costs associated with defined regulatory or taxation change events.<sup>9</sup>

#### 5.4.2 Queensland

In the Queensland Competition Authority's (QCA) 2015-16 determination, retail margin was set at 5.7 per cent of total costs (including the margin). This was the same retail margin the QCA had adopted in its 2013-14 and 2014-15 determinations, which was consistent with the retail margin IPART adopted in its 2013 decision. The QCA decided that it was appropriate to adopt the same retail margin as IPART because:

- it was the most recently estimated benchmark available;
- it was based on extensive analysis; and
- QCA considered that retailers faced similar levels of risk in Queensland and NSW.

The QCA's aim was to set the retail margin at a level that reflected an efficient retailer's requirements. The QCA considered that a retail margin of 5.7 per cent was appropriate based on the most up-to-date and relevant analysis available at that time<sup>10</sup>.

#### 5.4.3 Australian Capital Territory

The Independent Competition and Regulatory Commission (ICRC) approved a retail margin of 6.04 per cent for 2015-16 (6.04 per cent in ex ante terms is the equivalent

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<sup>9</sup> Ibid, page 129.

<sup>10</sup> Queensland Competition Authority, *Final Determination, Regulated Retail Electricity Prices for 2015-16*, June 2015.



of a retail margin of 5.7 per cent applied ex post)<sup>11</sup>. This margin was applied to all cost components, excluding the retail margin allowance itself. This resulted in a retail margin allowance of \$10.15 per MWh for 2015-16.

In its draft report, ICRC proposed a retail margin of 5.7 per cent for the next regulatory period. The ICRC used an ex ante approach in calculating the retail margin cost allowance. It did this by multiplying the retail margin by total costs exclusive of any retail margin allowance. The ICRC has calculated its retail margin allowance using this methodology since 2007. The ICRC has also benchmarked the retail margin to that adopted by IPART over this time period.

The retail margins approved by regulators in other jurisdictions in respect of the 2015-16 financial year are summarised in Table 5.1.

**Table 5.1: Retail margins in other NEM jurisdictions (2015-16)**

	IPART	QCA	ICRC
Retail margin (%)	5.7	5.7	6.04 <sup>Note</sup>

Note: ICRC's allowance is calculated in ex ante terms and is the equivalent of a retail margin of 5.7 per cent applied ex post.

## 5.5 Risk allowance in the retail margin

As previously noted, the Economic Regulator has applied the benchmarking approach in the past in setting Aurora Energy's retail margin, adjusted to take account of any difference in risks faced by Aurora Energy compared to the risks faced by standard or franchise retailers in other NEM jurisdictions.

### 5.5.1 Energy price risk

Retailers operating in the NEM are required to purchase electricity through the wholesale spot market. To manage the risks associated with variations in wholesale energy prices (and in the absence of any ability to pass the associated costs on to customers), retailers and generators enter into hedge contracts. Hedge contracts usually incur a premium price. A retailer's energy purchases may, therefore, not be fully 'covered' through hedge contracts. In this way, a retailer may be exposed to varying degrees to fluctuations in the wholesale energy price.

The Economic Regulator recognises that Aurora Energy faces the risk of the wholesale electricity price used in the calculation of standing offer prices being lower than actual energy prices offered by Hydro Tasmania.

As an isolated retailer in the NEM, with an obligation to purchase from a single generator (Hydro Tasmania), Aurora Energy is exposed to the risk that wholesale energy costs will exceed the WEP determined by the Economic Regulator.

<sup>11</sup> Independent Competition and Regulatory Commission, *Final Decision, Retail Electricity Price Recalibration 2015-16*, June 2015.

However the Economic Regulator notes that the key input into the wholesale electricity costs allowance, the WEP, will be recalculated during each period of the annual standing offer price approval processes prior to the beginning of Period 2 and Period 3.

The introduction of regulation requiring Hydro Tasmania to offer a range of regulated derivatives contracts to authorised retailers operating in Tasmania has further reduced the risks associated with variations in price and load that Aurora Energy would otherwise face. One of the key objectives behind the then Government's Energy Reforms introduction of the wholesale contract regulatory framework was to ensure that Aurora Energy did not face risks that were materially different to the risks facing retailers operating in interstate markets.<sup>12</sup>

Given that regulation in the wholesale market essentially removes any additional energy price risk that Aurora Energy may face in Tasmania compared with retailers operating in interstate markets, the Economic Regulator considers that there is no need to add a premium to the retail margin to compensate for energy price risk.

#### 5.5.2 Volume risk

During the regulatory period covered by the 2016 Standing Offer Determination the Economic Regulator considers that Aurora Energy will face risks associated with potential changes in:

- customer numbers – due to potential competition from other retailers; and
- customer load and consumption patterns (load profile) due to:
  - customers switching to other retailers;
  - changes in economic conditions;
  - variations in weather;
  - the uptake of energy efficiency measures; and
  - competition from other fuel sources.

It is not possible to quantify the net impact of the effects of risks associated with changes in economic conditions, variations in weather, uptake of energy efficiency measures and competition from other fuel sources in Tasmania and other NEM jurisdictions. The Economic Regulator considers therefore that the retail margin should not be adjusted for risks that cannot be quantified.

As to variations to customer numbers, load and load profile associated with customers switching between retailers, the Economic Regulator does not consider that, as the

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<sup>12</sup> Second Reading Speech, *Electricity Reform (Implementation) Bill 20 of 2013*, page 6 (11 April 2013).

regulated offer retailer, Aurora Energy will face greater risks than retailers operating in other NEM jurisdictions.

In its Second Reading Speech for the *Electricity Reform (Implementation) Bill 2013*, the then Tasmanian Government contended that an annualised churn rate of five per cent was typical of the rate seen in the start-up phase in other competitive markets around Australia<sup>13</sup>.

In other NEM jurisdictions, the churn rate experienced in the first year of full retail competition has varied widely. According to AEMO data<sup>14</sup>, the cumulative switching rate in Queensland was approximately 21 per cent, while in NSW and Victoria cumulative switching rates were much lower with approximately two per cent and four per cent of small customers respectively switching retailers in the first year.

The variations in customers switching rates between the jurisdictions may be affected by many factors, including:

- the disparity between standing offer prices and market contract prices;
- marketing surrounding the introduction of Full Retail Competition (FRC) and consumer awareness of the process and consumer rights; and
- other non-price measures that may encourage customers to enter the competitive market.

Based on the information presented above, the Economic Regulator considers that the low switching rates in NSW and Victoria at the commencement of FRC may have been caused by:

- first mover problems, with competition in essential services being quite uncommon during the early 2000's; and
- a lack of incentives built into regulated prices to encourage competition.

Based on the preceding discussion, the Economic Regulator recognises the difficulty of predicting the churn rates that would eventuate in Tasmania if other retailers commenced operating in the Tasmanian small customer electricity market. However, the Economic Regulator considers that Aurora Energy is unlikely to be exposed to more volume risk compared to regulated retailers operating in an interstate market. Further the Economic Regulator does not see any compelling need to add a premium to the retail margin to account for volume risk.

## 5.6 Summary

Having regard to the objectives in section 6 of the ESI Act, it could be argued that it is in the interests of electricity consumers that new entrant retailers are encouraged

<sup>13</sup> [http://www.parliament.tas.gov.au/bills/Bills2013/pdf/notes/20\\_of\\_2013-SRS.pdf](http://www.parliament.tas.gov.au/bills/Bills2013/pdf/notes/20_of_2013-SRS.pdf)

<sup>14</sup> <http://www.aemo.com.au/Electricity/Data/Metering/Retail-Transfer-Statistical-Data/Historical-Retail-Transfer-Statistical-Data>

to enter the Tasmanian market and that a higher retail margin may facilitate this by providing ‘headroom’ that a new entrant retailer could potentially undercut through its market offer products. However, the Economic Regulator is mindful that consumers of electricity should not pay more than is required to cover an efficient retailer’s operating costs.

Additionally, the Economic Regulator is required to set a retail margin that enables Aurora Energy to make a reasonable return on its investment whilst at the same time, taking account of the need for efficiency in the provision of standard retail services to small customers.

In determining Aurora Energy’s retail margin for this Draft Report and the associated Draft Determination the Economic Regulator has considered the retail margins set in other jurisdictions and has not identified any evidence suggesting that the risks facing a regulated offer retailer operating in Tasmania are greater than the risks facing a regulated offer retailer operating in other Australian states and territories.

Consequently, in the absence of any evidence suggesting otherwise, the Economic Regulator can see no reason to allow a higher retail margin than that provided in other jurisdictions.

Specifically, given the discussion in section 5.5, the Economic Regulator does not consider that Aurora Energy faces additional energy price or volume risks compared to the comparable risks faced by retailers in other jurisdictions.

## **5.7 Economic Regulator’s proposed decision**

The Economic Regulator proposes providing Aurora Energy with a net retail margin of 5.7 per cent per annum on total costs for each Period of the regulatory period.

## 6 RETAIL COST-TO-SERVE

### 6.1 Introduction

In determining the maximum prices for small customers, the Economic Regulator makes an allowance for the cost to provide services to those customers, and for a retail margin. The retail margin is intended to compensate the retailer for its investment in the business and the risks it assumes in providing those retail services. The retail margin is discussed in Chapter 5.

This Chapter discusses the Economic Regulator's consideration of, and proposed decision on, the cost-to-serve allowance for small customers for the period 1 July 2016 to 30 June 2019. The cost-to-serve is the allowance provided to enable the retailer to cover its operating costs. These operating costs includes costs associated with billing and revenue collection, some marketing expenditures, providing a customer call centre (providing advice and answering customer queries), an appropriate allocation of corporate overheads and regulatory compliance. The cost-to-serve does not include other costs passed through to customers, such as network costs (discussed in Chapter 7) and the cost of purchasing energy (discussed in Chapter 4).

The cost-to-serve is intended to reflect the efficient costs that would be incurred by a retailer in providing its retail services to its customers.

### 6.2 Context

Section 40AB(5) of the ESI Act defines the cost-to-serve of a regulated offer retailer in relation to the provision of standard retail services as:

the costs ... that are, in the opinion of the Regulator, reasonably incurred by the regulated offer retailer in the efficient provision of those services.

Since 1 July 2014, Aurora Energy has operated in a market that is open to retail competition. From that date all customers on mainland Tasmania have had the option of entering into a market retail contract with Aurora Energy or a new entrant retailer notwithstanding that, at the time of writing, no new retailers had entered the small customer market. Standing offer prices are available for those small customers choosing not to enter into a market retail contract with an authorised retailer.

### 6.3 Approach

In previous investigations, the Economic Regulator adopted a benchmarking approach to setting the allowance for the cost-to-serve and the retail margin, adjusted to take account of the local market context and circumstances in each case. Benchmarking involves comparing Aurora Energy's cost-to-serve allowances with the most recent allowances approved by regulators in other Australian jurisdictions.

While the Economic Regulator continues to consider a benchmarking approach to be the valid approach to assessing retail cost-to-serve, it considers that there is no comparable retailer for Aurora Energy to be accurately benchmarked against. Currently, Aurora Energy is the only regulated offer retailer in Tasmania and it faces constraints that differ markedly from other retailers. These constraints include:

- Aurora Energy has been instructed to limit its operations to mainland Tasmania and as such, is able leverage the benefits that other NEM retailers enjoy being able to operate across multiple jurisdictions; and
- shareholder directions restrict Aurora Energy from diversifying its commercial operations, which may reduce its risk profile.

The local factors that need to be taken into account in an assessment of the retail cost-to-serve include: the economies of scale and scope of Aurora Energy's operations compared to potential benchmark comparators; potential for productivity gains over the period; the required level of services; and the efficient costs associated with providing those services.

The Economic Regulator acknowledges that the use of benchmarks can be only a guide where there are key differences in the scale and scope of activities.

While Aurora Energy is an established retailer with an established customer base, it does have a smaller customer base than retailers in the majority of other Australian jurisdictions. The alternative to a benchmarking approach to calculating a cost-to-serve allowance is a cost build-up approach which involves conducting a detailed review of Aurora Energy's operating cost structure to calculate what the Economic Regulator considers to be a reasonable cost-to-serve figure.

The Economic Regulator proposes adopting a combination of these two approaches in determining a cost-to-serve allowance for the regulatory period. That is, under this approach, the Economic Regulator will estimate Aurora Energy's cost-to-serve allowance via a cost build-up approach and then test the result against the cost-to-serve figure in select other jurisdictions to ensure that the Economic Regulator's calculated figure is broadly in line with those of other jurisdictions.

The Economic Regulator notes that Queensland and Australian Capital Territory (ACT) are the only other jurisdictions in the NEM that continue to regulate electricity prices.

The Economic Regulator proposes considering the decisions made in the ACT and Queensland after calculating a cost-to-serve allowance via a cost build-up approach.

## 6.4 Allowances in other jurisdictions

Table 6.1 sets out the total retail cost allowances approved in the most recent decisions made by the Independent Competition and Regulatory Commission (ICRC) and the Queensland Competition Authority (QCA).

**Table 6.1: Total cost-to-serve allowance including Customer Acquisition and Retention Cost (CARC) (2015-16\$ per customer)**

	ICRC (ACT) \$	QCA (Qld) \$
<b>Total cost-to-serve allowance</b>	117.53	169.67

Source: QCA, *Final Determination, Regulated Retail Electricity Prices for 2015-16*, June 2015 & ICRC, *Final Decision, Retail Electricity Price Recalibration 2015-16*, June 2015.

#### 6.4.1 Queensland

On 31 May 2013, the QCA released its final determination on the state's regulated retail electricity prices for 2013-14.

The QCA decision resulted in annual bills increases for typical residential customers rising by around 23 per cent in 2013-14. The main underlying cost driver for the increases were a significant increase in network charges. The increase in network charges was due, in part, to increases in the distributors' revenue allowed by the AER, the costs of complying with the Queensland Government's Solar Bonus Scheme and a catch-up from the Queensland Government's retail tariff freeze during 2012-13.

The QCA reported energy costs as the next biggest driver and that energy costs had risen by nine per cent due to the tightening of the futures market. The QCA also noted that retail operating costs had increased by 24 per cent as a result of updated benchmarking using IPART's 2013 draft estimates of retail operating cost allowance.

In making its determination, the QCA adopted a cost build-up approach.

In June 2015, the QCA released its final determination on the state's regulated retail electricity prices for 2015-16.

When the QCA began its review in September 2014 it was directed to set prices that would only apply in regional Queensland because of the government's decision to deregulate retail electricity prices in south east Queensland from 1 July 2015. However in April 2015 the new Queensland government announced that it would delay price deregulation for 12 months and therefore the review would set prices to apply throughout Queensland.

The QCA's Interim Consultation Paper questioned the appropriateness of including an allowance for CARC, given that competition is extremely limited in regional Queensland<sup>1</sup>. However, the QCA ultimately decided to set the retail cost-to-serve allowance based on the estimated costs of an efficient retailer operating in the competitive south east Queensland market. The QCA justified incorporating an allowance for CARC on the basis that retailers operating in this market incurred costs acquiring and retaining customers.

<sup>1</sup> Queensland Competition Authority, *Final Determination, Regulated Retail Electricity Prices for 2015-16*, June 2015.

The QCA's approach to setting prices was largely consistent with its approach in previous investigations.

**Table 6.2: QCA retail cost allowance for notified retail tariffs per customer per annum (\$nominal)**

	2014-15 \$	2015-16 \$
Retail operating costs	121.19	123.07
Customer acquisition and retention costs	45.46	46.60
<b>Total retail cost allowance</b>	<b>166.65</b>	<b>169.67</b>

#### 6.4.2 Australian Capital Territory

For 2003-04, the ICRC estimated retail operating costs at \$85 per customer. The base allowance included an amount to cover Full Retail Contestability/Competition (FRC) costs. Each subsequent year, including for the 2009-10 financial year, this amount has been escalated by the CPI. For 2009-10, ICRC's retail operating cost allowance equated to \$103 per customer. This allowance was exclusive of depreciation, which was provided for in the net retail margin.

In 2009, ICRC again considered whether it was appropriate to grant an allowance for customer acquisition and retention costs for 2009-10. As in previous years, ICRC rejected an allowance for customer acquisition costs based on the statutory requirement for ICRC to balance:

....the protection of consumers against abuses of monopoly power, the cost of providing regulated services and the social impact of the Commission's decisions.

ICRC did not consider that the potential longer term benefits to consumers from including an allowance for customer acquisition costs (on the basis that it may increase competition) would outweigh the potential negative short-term implications of the increased cost.<sup>2</sup>

In its Draft Report for 2010-12 retail prices, the ICRC further considered whether it was appropriate to grant an allowance for customer acquisition and retention costs and, as in previous years, rejected calls by ActewAGL for the inclusion of such costs. In making its decision, the ICRC had regard to the social impact of its decisions by not including a customer acquisition cost on the basis claimed by the retailer that such a cost is necessary to encourage competition. In its Final Report for 2010-12 prices, the ICRC maintained its position on the methodology and the retail cost allowance.

In its Final Report for 2014-17 retail prices, the ICRC again stated that it had considered whether it was appropriate to grant an allowance for CARC. However, in

<sup>2</sup> ICRC, *Final Decision - Retail Prices for Non-contestable Electricity Customers, 2009-2010, Report 3 of 2009*, June 2009, page 38.



its draft report, the ICRC followed the view expressed by the AEMC in its review of best practice retail electricity price regulation<sup>3</sup>:

The advice of the AEMC is that the competition allowance should encompass all the elements that may previously have been included to facilitate competition, such as customer acquisition and retention costs, adjustment of the retail margin or the calculation of cost estimates based on a hypothetical new entrant<sup>4</sup>.

Given its decision to not include a competition allowance, the ICRC also decided not to include any additional allowance for CARC.

**Table 6.3: ICRC retail cost allowance per customer per annum (nominal\$)**

	2014-15 \$	2015-16 \$
Retail operating costs	114.68	117.53
Customer acquisition and retention costs	0	0
<b>Total retail cost allowance</b>	<b>114.68</b>	<b>117.53</b>

Source: <http://www.icrc.act.gov.au/wp-content/uploads/2015/06/Report-5-of-2015-June-2015.pdf>, page 20.

## 6.5 Discussion

### 6.5.1 Customer numbers

Based on its analysis of customer churn in other jurisdictions and considering the current level of competition in the Tasmanian retail electricity market (see section 5.5.2), the Economic Regulator proposes adopting customer churn of 2.5 per cent for 2016-17.

Further, Aurora Energy's report to the AER for Quarter 1, 2015-16 indicated that it had 239 431 standing offer customers (207 294 residential customers and 32 137 business customers) and applying the assumed churn rate, the Economic Regulator proposes adopting customer numbers of 233 445 for 2016-17 (Period 1).

Revised estimates of customer numbers for Period 1 and variations in customer numbers for Periods 2 and 3 will be accounted for as part of the relevant annual standing offer price approval processes.

<sup>3</sup> Australian Energy Market Commission, *Advice on Best Practice Retail Price Regulation Methodology*, 27 September 2013.

<sup>4</sup> Independent Competition and Regulatory Commission, *Standing Offer Prices for the Supply of Electricity to Small Customers: 1 July 2014 to 30 June 2017, Final Report*, June 2014.

### 6.5.2 Use of cost build-up approach and benchmarking

As noted above, in previous determinations the cost-to-serve allowance has been set by reference to benchmarking against regulatory decisions in other jurisdictions. However, the Economic Regulator considers that this is no longer an appropriate approach to assessing retail related components of the NMR as there is no directly comparable retailer for Aurora Energy to be assessed against.

That is, while ActewAGL, services a similar number of customers in the ACT, the Economic Regulator notes that ActewAGL has a broader scope of operations than Aurora Energy and therefore has scale advantages Aurora Energy does not have. Similarly in Queensland, Origin Energy services a much larger customer base than Aurora Energy does and derives similar scale advantages.

Also Aurora Energy is the only regulated offer retailer in Tasmania and ministerial direction prevents it from operating outside Tasmania. Aurora Energy therefore faces a range of constraints that differ markedly from those facing other regulated retailers in other jurisdictions.

Based on the outcomes from the interjurisdictional benchmarking, the Economic Regulator proposes using a cost build-up approach when estimating Aurora Energy's cost-to-serve allowance.

### 6.5.3 Operating cost build-up

In the first instance the Economic Regulator sought details of Aurora Energy's forecast operating costs for the regulatory period. In response Aurora Energy provided its cost-to-serve model. Aurora Energy also provided additional information in response to specific information requests made by the Economic Regulator in relation to operating costs.

The Economic Regulator also considered whether there are any external cost pressures that may increase or decrease operating costs even in the absence of any change in activity. In conducting its review the Economic Regulator therefore examined Aurora Energy's Annual Reports and Corporate Plans to assess whether there had been, or were likely to be, any significant issues or events that would impact on Aurora Energy's operating costs during the regulatory period.

The Economic Regulator focussed on reviewing three areas:

1. the assumptions adopted by Aurora Energy in estimating its operating costs;
2. the allocation of expenses between standing offer customers and non-standing offer customers; and
3. the nature of the expenses allocated to standing offer customers.

The Economic Regulator also noted that Aurora Energy had allocated expenses between standing offer and non-standing offer customers using various cost drivers including:

- number of bills issued;
- customer numbers;
- corporate allocation (Core Functions);
- bad debt customer profile;
- cost of sales; and
- revenue.

After reviewing Aurora Energy's cost allocations, and satisfying itself as to their appropriateness, the Economic Regulator proposes accepting Aurora Energy's cost allocation bases.

The Economic Regulator's review also identified that Aurora Energy had:

1. calculated its operating costs for Period 1 of the regulatory period (ie 2016-17) on the basis of its budgeted 2015-16 operating costs which, in turn, were outlined in its 2016-19 Corporate Plan
2. escalated its 2014-15 budgeted expenditure by 4.92 per cent in deriving its 2015-16 base year budgeted expenditure;
3. escalated the resultant 2016-17 operating costs by 2.5 per cent to account for inflation for each of the 2017-18 and 2018-19 financial years;
4. in real dollars, planned to progressively reduce its operating costs over the regulatory period. This is consistent with the claims made in Aurora Energy's Corporate Plan 2016-19, Annual Report 2015 and in several face-to-face discussions with the Economic Regulator;
5. included bad debts expenses in its operating costs;
6. increased its per customer cost-to-serve during the regulatory period (due to its projected churn and consequential loss of customers more than offsetting the reduction in Aurora Energy's budgeted operating costs over the regulatory period);
7. included costs relating to Small Contract customers in its standing offer operating costs budgets;
8. included costs relating to 'Defensive Campaigns' which would be incurred should a new retailer or retailers enter the Tasmanian market; and
9. included a substantial Pay-On-Time discount in its budgeted operating costs.

The Economic Regulator did not engage an independent third party consultant to review the prudence and efficiency of Aurora Energy's budgeted operating cost expenditure. The Economic Regulator did however conduct its own review of Aurora Energy's budgeted expenditure to satisfy itself that expenses were not being incorrectly allocated to standing offer customers.

#### 6.5.4 Customer acquisition and retention costs

The Economic Regulator is concerned about allowing Aurora Energy to continue to receive all or some of the benefit of the CARC allowance which was first introduced in the 2013 Standing Offer Determination. CARC is the cost incurred by retailers in contestable markets where new entrant retailers endeavour to attract customers away from incumbent retailers and incumbent retailers seek to both retain existing customers and attract new customers. A CARC allowance of \$42 per customer was approved in the 2013 Determination based on the assumption that by Period 3 of that regulatory period (ie the current financial year, 2015-16) Aurora Energy would be operating in a competitive market environment.

Most other NEM jurisdictions allow standing offer retailers to raise a CARC. However in the Australian Capital Territory, the ICRC does not allow for a CARC. Additionally, in its most recent pricing determination, the QCA noted that there were arguments against the use of a CARC allowance where there was little or no competition.

The retail competition anticipated in the Tasmanian electricity market since the making of the 2013 Determination has not eventuated and the Economic Regulator has concerns about continuing to allow a CARC allowance in the absence of such competition.

However, there is also an argument that the CARC allowance acts as a de facto competition headroom allowance and that by reducing the CARC allowance and therefore reducing standing offer prices, the Economic Regulator may also reduce the chance of other retailers entering the Tasmanian electricity market.

In administering the *Electricity Supply Industry Act 1995*, the Economic Regulator's objectives include, amongst other things, promoting efficiency and competition in the electricity supply industry. The retention of the CARC allowance may promote competition in the retail electricity market by providing headroom as noted above. Approving an allowance which may not currently be needed from a business perspective is not efficient and potentially delivers a windfall gain to Aurora Energy.

#### 6.5.5 Conclusions

Based on the analysis conducted by the Economic Regulator as described above, the Economic Regulator estimated Aurora Energy's reasonable and efficient operating costs for 2016-17 by excluding costs relating to:

- Small Contract customers - Costs associated with Small Contract customers should not form part of operating costs required to service Standing Offer customers.

- Bad debts - While the costs associated with collecting outstanding debts is accepted as an operating cost, the Economic Regulator's proposed retail margin compensates Aurora Energy for the risk of revenue not being collected as explained in section 5.2.2.
- Advertising and defensive campaigns - The Economic Regulator considers that the costs associated with these items, designed to retain customers in the event that a new retailer or retailers enter the Tasmanian retail electricity market, are not an efficient cost in terms of providing services to standing offer customers. For Period 1, advertising costs and the costs of defensive campaigns are estimated to make up around three per cent of Aurora Energy's operating costs.

In converting costs expressed in nominal 2016-17\$ to real 2015-16\$, the Economic Regulator has also applied a lower CPI of 1.5 per cent as opposed to the CPI of 2.5 per cent Aurora Energy applied in its cost-to-serve Model. The Economic Regulator's lower CPI reflects movements in the All Cities Consumer Price Index for the period September 2014 to September 2015.

Recognising the earlier comments about the appropriateness of using benchmarking to estimate Aurora Energy's retail operating costs, the Economic Regulator notes that the QCA's cost-to-serve of \$169.67 per customer (Real 2015-16\$) is much higher than the cost-to-serve the Economic Regulator proposes as Aurora Energy's reasonable and efficient operating costs. Further it is not possible to establish why the QCA's allowance is so much higher. In summary, the Economic Regulator does not consider the QCA's cost-to-serve allowance to be relevant in the Tasmanian context.

While the Economic Regulator has not excluded nor specifically allowed any CARC, the Economic Regulator notes that Aurora Energy's operating costs include a number of CARC type costs.

Further, to fulfil its legislative objective of promoting competition the Economic Regulator considers that Aurora Energy should be permitted to recover these CARC related costs. In this regard the Economic Regulator proposes allowing Aurora Energy to recover advertising costs and costs associated with defensive campaigns.

The following table demonstrates the impact on the NMR of assuming a customer churn rate of 2.5 per cent and allowing Aurora Energy to recover advertising and defensive campaign costs.

**Table 6.4: Cost-to-serve (CTS) allowances under different scenarios for Period 1 (real 2015-16\$)**

	Per Customer \$	Difference per customer \$
<b>CTS with churn and advertising/defensive campaign costs</b>	<b>114.64</b>	N/A
CTS with advertising/defensive campaign costs, but without churn	111.77	-2.87
CTS with churn, but without advertising/defensive campaign costs	110.98	-3.66
CTS without churn or advertising/defensive campaign costs	108.20	-6.44

## 6.6 Economic Regulator’s proposed decision

Taking account of:

- the Economic Regulator’s assessment of Aurora Energy’s reasonable and efficient operating costs attributable to the standing offer customer base;
- the Economic Regulator’s consideration of costs associated with promoting competition; and
- the Economic Regulator’s views on the value of interjurisdictional benchmarking,

the Economic Regulator proposes, for Period 1, a cost-to-serve allowance of \$114.64 per customer (real 2015-16\$), which equates to a total cost-to-serve allowance of \$26.76 million based on the Economic Regulator’s assumed customer numbers of 233 445 for that period.

Noting that the Final cost-to-serve figure for Period 1 will be established as part of the annual standing offer price approval process in June 2016, the Economic Regulator also proposes indexing that figure for each of Periods 2 and 3 by applying the prescribed inflation factor methodology outlined in clause 3 of the 2016 Draft Determination.

## 7 PASS THROUGH COSTS

This Chapter discusses the Economic Regulator’s consideration of, and proposed decisions on, the various costs that it will permit Aurora Energy to pass through to small customers under the 2016 Standing Offer Determination.

### 7.1 Background

Section 40AB of the ESI Act requires the Economic Regulator to estimate the operational costs of a regulated offer retailer in providing standard retail services. Section 40AB(2) specifies the components of the regulated offer retailer’s operational costs that the Economic Regulator must consider and includes:

- (b) the transmission and distribution costs of the regulated offer retailer in relation to the provision of those services; and
- (d) any other costs, incurred by the regulated offer retailer in relation to the provision of those services, that the Regulator thinks fit, including but not limited to –
  - (i) the cost of any obligation imposed on the retailer by or under this Act or by or under the National Energy Retail Law (Tasmania) Act 2012; or
  - (ii) the costs to the retailer, in relation to the generation of electricity, that may be imposed under any Commonwealth legislation relating to the emission of carbon.

Electricity retailers incur a number of costs over which they have no control and which are passed through directly to customers. These costs are referred to as ‘pass through costs’. The following costs are pass through costs for determining the NMR<sup>1</sup> for each period:

- network costs which include both transmission and distribution costs( $NC_y$ );
- the cost of complying with the Australian Government’s mandatory renewable energy schemes ( $RET_y$ );
- metering costs ( $M_y$ );
- the costs of operating in the NEM ( $AEMO_y$ ); and
- adjustments to account for cost under/over recoveries from previous periods in the current( $K_y$ ) and previous ( $CF_y$ ) determinations, and adjustments for tax events and material changes in circumstances ( $A_y$ ).

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<sup>1</sup> The formula for calculating the NMR is shown in section 3.1.

As discussed in section 3.4 the Economic Regulator will only calculate an illustrative NMR for Period 1 (Chapter 8). The Economic Regulator will determine the actual NMR to apply during Period 1 during the annual standing offer price approval process in June 2016. This chapter therefore discusses each pass through cost and includes an estimate of each pass through cost which is used in calculating the illustrative NMR. The estimates are based on information available at the time of releasing the Draft Report. The Economic Regulator will update the estimated pass through costs for its Final Investigation Report in April 2016.

## 7.2 Network costs

Section 40AB(4) states that:

For the purposes of this section, the transmission and distribution costs of the regulated offer retailer in relation to the provision of standard retail services consist of–

- (a) the prices, as determined in accordance with any relevant distribution determination made under the National Electricity Rules, charged to the regulated offer retailer for the distribution of electricity; and
- (b) the prices, as determined in accordance with any relevant transmission determination made under the National Electricity Rules, charged to the regulated offer retailer for the transmission of electricity -

but only in so far as the costs relate to electricity used in the provision of standard retail services.

Across the NEM, transmission and distribution (network) costs comprise approximately half of the electricity price paid by small customers. In Tasmania network costs make up around 55 per cent of the electricity price paid by small customers.

Network charges comprise transmission use of system (TUoS) and distribution use of system (DUoS) charges. Network charges are regulated by the AER with the AER reviewing network tariffs in June each year. The approved tariffs apply for 12 months from 1 July of each year.

The network costs component of the NMR is calculated by applying the regulated network tariffs to the NTB for the next period.

Upon request, Aurora Energy provided the Economic Regulator with a forecast of Network costs for Period 1. The AER is not expected to approve TasNetworks' network tariffs to apply during 2016-17 (Period 1 of the 2016 Determination) until June 2016. For the purpose of this investigation and for this Draft Report, Aurora Energy has therefore applied an escalation factor to the AER approved 2015-16 network tariffs to determine forecast network tariffs for 2016-17. Aurora Energy then applied the forecast network tariffs to its forecast small customer NTB for 2016-17 to determine forecast network costs for Period 1 of the 2016 Standing Offer Determination.



The Economic Regulator has reviewed Aurora Energy’s network cost calculations and is satisfied as to the reasonableness of those calculations. The Economic Regulator, therefore, proposes adopting Network costs for the illustrative NMR for Period 1 as set out in Table 7.1.

**Table 7.1 Economic Regulator’s proposed network costs (NC<sub>y</sub>) for the illustrative NMR**

	Period 1
Network costs (\$m)	248.4

## 7.3 Renewable Energy Target costs

### 7.3.1 Introduction

Australia's Renewable Energy Target (RET) is an Australian Government policy designed to ensure that at least 33 000 Gigawatt-hour (GWh) of Australia's electricity comes from renewable sources by 2020.

The RET scheme creates a guaranteed market for renewable energy, using a mechanism of tradable certificates with each certificate representing one-megawatt hour of renewable electricity generated.

By law, electricity consumers pay for this government requirement through obligations imposed on wholesale electricity purchasers (including retailers) who then pass through the cost of complying with the obligations to customers.

The RET charge is made up of two schemes:

- the Large-scale Renewable Energy Target (LRET); and
- the Small-scale Renewable Energy Scheme (SRES).

The LRET supports development of large projects such as wind farms and solar power stations. Electricity retailers must purchase and surrender a set number of Large-scale Generation Certificates (LGCs) each year. The number of LGCs to be surrendered each calendar year is calculated using the Renewable Power Percentage (RPP) which is determined by the Clean Energy Regulator (CER).

The SRES supports investment in smaller technologies such as rooftop solar panels and solar hot water heaters through the generation of Small-scale Technology Certificates (STCs). The SRES is an uncapped scheme therefore all STCs created must be purchased by electricity retailers. The number of STCs electricity retailers must purchase and surrender over the course of each calendar year is calculated using the Small-scale Technology Percentage (STP) determined by the CER.

The RPP and STP are applied to the amount of wholesale electricity purchased by the retailer in a calendar year adjusted for the applicable Distribution Loss Factor (DLF). In March of each year the CER publishes the final binding percentages for that calendar year for the RPP and the STP and provides non-binding STPs for the following two calendar years.

In summary, an electricity retailer’s annual costs of complying with the RET are determined by the RPP, the STP, the price of LGCs and STCs and the amount of electricity purchased.

LGC and STC prices are determined in an open market. However, STCs can also be sold through the STC Clearing House for a fixed price of \$40 per certificate (excluding GST)<sup>2</sup>.

### 7.3.2 Cost of complying with the LRET

The annual target for the LRET is specified in legislation. The CER calculates the annual required RPP based on the following:

- the required amount of renewable electricity for the year;
- the estimated amount of electricity that will be purchased for the year;
- the amount by which the required GWh of renewable source electricity for previous years has exceeded, or has been exceeded by, the amount of renewable electricity required under the scheme in those years; and
- the estimated amount of all partial exemptions expected to be claimed for the year.

#### 7.3.2.1 Economic Regulator’s proposed decision – RPP

The CER publishes the RPP by 31 March for the current calendar year. For the 2015 calendar year, the CER published a RPP of 11.11 per cent.

As the CER is not required to publish RPPs for the 2016 and 2017 calendar years until 31 March of each of those years, for this Draft Report the Economic Regulator has applied the formula outlined in section 39(2)(b) of the *Renewable Energy (Electricity) Act 2000* (Cwlth) to calculate forecast RPPs for the second half of the 2016 calendar year and the first half of the 2017 calendar year<sup>3</sup>.

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<sup>2</sup> The CER operates the STC Clearing House, which facilitates the exchange of small-scale technology certificates (STCs) between buyers and sellers. The STC Clearing House is accessible via the Renewable Energy Certificate Registry.

<sup>3</sup> The required GWh of renewable electricity for 2016 and 2017 is specified in section 40 of the *Renewable Energy (Electricity) Act 2000* (Cwlth).

The formula is as follows:

$$\text{Renewable power percentage for the previous year} \times \frac{\text{Required GWh of renewable source electricity for the year}}{\text{Required GWh of renewable source electricity for the previous year}}$$

The required GWh of renewable source electricity for each calendar year from 2001 to 2030 inclusive is specified in section 40 of the Renewable Energy (Electricity) Act.

Applying the above formula the Economic Regulator has calculated the RPPs as follows:

1 July 2016 – 31 December 2016

$$11.11\% \text{ (2015)}^4 \times \frac{21\,431\,000}{18\,850\,000} = 12.63\%$$

1 January 2017 to 30 June 2017

$$12.63\% \text{ (2016 as calculated above)} \times \frac{26\,031\,000}{21\,431\,000} = 15.34\%$$

The Economic Regulator therefore proposes adopting the RPPs set out in Table 7.2 in calculating the illustrative NMR.

**Table 7.2 Economic Regulator’s proposed RPP**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 Jun 2017
RPP	12.63%	15.34%

<sup>4</sup> <http://www.cleanenergyregulator.gov.au/RET/About-the-Renewable-Energy-Target/The-certificate-market/The-renewable-power-percentage> (accessed 18 January 2016).

The Economic Regulator has also reviewed the decisions by regulators in Queensland and the ACT and notes that, in each jurisdiction, the relevant regulator has adopted the CER’s RPPs and allowed the actual cost of complying with the LRET to be recovered via a pass through mechanism.

#### 7.3.2.2 Economic Regulator’s proposed decision – LGC price

With regard to estimating the price of LGCs, the Economic Regulator considers a market based approach appropriate as it is more transparent than the alternative approach which is based on determining the costs of creating LGCs. Therefore, the Economic Regulator proposes adopting the LGC prices published by Green Markets which operates a licensed and regulated electronic market for over the counter (OTC) products. The LGC spot price was \$76.80 as at 19 January 2016<sup>5</sup>. The Economic Regulator proposes adopting this LGC price for Period 1 as shown in Table 7.3.

**Table 7.3 Economic Regulator’s proposed LGC prices**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 Jun 2017
LGC	76.80	76.80

#### 7.3.3 Cost of complying with SRET

Unlike the LRET, the SRET does not have a legislated annual target; that is, the aim of the STP is to try and match the number of STCs created to the number of STCs required to be surrendered during each calendar year.

Under the Renewable Energy (Electricity) Act, the Clean Energy Regulator must publish an estimate of the small-scale technology percentage for the next two years. This is referred to as the non-binding STP. The STP estimate is published in accordance with the Act, and is a guide only.

The actual (binding) STP is calculated by the CER, based on the estimated:

- value, in MWh, of STCs that will be created for the year<sup>6</sup>;
- amount of electricity that will be purchased for the year; and
- amount of all partial exemptions expected to be claimed for the year.

Since the start of the SRET in 2011 the CER has significantly underestimated the number of STCs created each year. Determining the STP is difficult and unpredictable as the number of STCs created is influenced by a number of factors outside the CER’s

<sup>5</sup> <http://greenmarkets.com.au> (accessed 19 January 2016)

<sup>6</sup> The CER engages consultants to provide forward estimates of the number of STCs likely to be created in each year. The results of the modelling assist the Minister for Climate Change and Energy Efficiency in determining the STP.

control such as changes in Commonwealth and State and Territory government policies relating to the small scale renewable market (eg changes to the Solar Credit Multiplier and feed-in tariffs).

Under-estimating the number of STCs to be created in each year results in a large difference between the estimated non-binding STPs and the binding STPs. The implications of this are that Aurora Energy’s NMR with regards to RET costs, may not match its actual costs in a particular period. This will result in amounts being passed through to customers in the following period.

The Economic Regulator also notes that regulators in other jurisdictions have adopted the CER’s binding and non-binding STPs.

#### 7.3.3.1 *Economic Regulator’s proposed decision - STP*

For its Draft Report the Economic Regulator proposes adopting the CER’s non-binding estimated STPs for the 2016 calendar year (second half) and the 2017 calendar year (first half) as shown in Table 7.4.

**Table 7.4 3 Economic Regulator’s proposed STPs**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 Jun 2017
STP	9.98%	9.86%

#### 7.3.3.2 *STC price*

With regards to the STC unit price, the Economic Regulator notes that STC prices may be estimated on the basis of a market based approach or by reference to the \$40 STC Clearing House fixed price.

Since 24 April 2015, the STC market price has remained above \$39.50 per certificate<sup>7</sup> with a STC spot price of \$39.90 as at 19 January 2016<sup>8</sup>.

The Economic Regulator considers that any estimate of future STC prices is speculative at best due to:

- the uncapped nature of the SRET; and
- the lack of a transparent forward market;
- continued uncertainty in relation to future government policy on renewable energy; and
- the responsive nature of the market to government policy changes.

<sup>7</sup> <http://greenmarkets.com.au/resources/stc-market-prices>

<sup>8</sup> <http://greenmarkets.com.au> (accessed 19 January 2016).

### 7.3.3.3 Economic Regulator's proposed decision – STC price

The Economic Regulator has reviewed the available information and, noting that the STC market appears to have stabilised, proposes a STP of \$39.90 for Period 1 of the regulatory period as set out in Table 7.5.

**Table 7.5 Economic Regulator's proposed STC prices**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 Jun 2017
STC	39.90	39.90

### 7.3.4 Estimated Load for Period 1

Aurora Energy has estimated its liable load for Period 1 to be 1 965 287 MWh. As the LRET and SRET schemes operate on a calendar year basis and Period 1 covers the 2016-17 financial year, it is necessary to allocate the estimated annual load between the first half of the financial year (ie July to December 2016) and the second half of the financial year (ie January to June 2017).

Based on advice provided by Aurora Energy as to the seasonality of demand, the Economic Regulator has allocated the annual load in the proportions of 55:45 between the first half and second half of 2016-17. Table 7.6 shows the resultant loads for each half of the 2016-17 financial year.

**Table 7.6 Economic Regulator's estimated load allocation**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 Jun 2017
Liable MWh	1 027 772	840 904

### 7.3.5 Economic Regulator's calculation of RET costs

Taking into account the preceding discussion, the Economic Regulator proposes adopting the following formulae to calculate Aurora Energy's estimated RET costs:

$$\text{Total RET cost} = \text{Total LRET cost} + \text{Total SRET cost}$$

where:

$$\text{Total LRET cost} = (\text{Liable MWh} \times \text{RPP} \times \$/\text{LGC})$$

$$\text{Total SRET cost} = (\text{Liable MWh} \times \text{STP} \times \$/\text{STC})$$

where:

Total LRET cost = cost of complying with obligations under the LRET scheme

Total SRET cost = cost of complying with obligations under the SRET scheme

Liable MWh = forecast load split between the first and second half of each financial year

RPP	=	RPP (see section 7.3.2.1)
STP	=	STP (see section 7.3.3.1)
\$/LGC	=	price per LGC (see section 7.3.2.2)
\$/STC	=	price per STC (see section 7.3.3.3)

The Economic Regulator’s calculation of RET costs for Period 1 of the regulatory period covered by the 2016 Standing Offer Determination is provided in Table 7.7.

**Table 7.7 Economic Regulator’s calculation of RET costs**

	1 Jul 2016 – 31 Dec 2016	1 Jan 2017 – 30 June 2017
LRET – liable MWh	1 027 772	840 904
RPP %	12.63%	15.34%
LGCs required	129 808	128 995
\$/LGC	76.80	76.80
Total LRET cost \$	9 969 223	9 906 795
SRES – liable MWh	1 027 772	840 904
STP %	9.98%	9.86%
STCs required	102 572	82 913
\$/STC	39.90	39.90
Total SRES cost \$	4 092 608	3 308 235
RET total costs (LRET + SRES) (\$)	14 061 832	13 215 030

### 7.3.6 Economic Regulator’s proposed decision on RET costs

The Economic Regulator’s proposed RET costs for Period 1 are reflected in Table 7.8.

**Table 7.8 Economic Regulator’s proposed decision - RET costs for the illustrative NMR**

	Period 1
RET costs (\$m)	27.28

## 7.4 Metering costs

Under previous determinations the total cost of metering services was not a separately identifiable component of the NMR with most metering costs included in network costs (NC<sub>y</sub>).

In response to recommendations in the Australian Energy Market Commission’s Power of Choice review to introduce metering contestability<sup>9</sup>, it is likely that metering competition will be introduced during the regulatory period covered by the 2016 Draft Determination.

Recent changes to the NER (national electricity rules) will result in metering services (metering services comprises the provision, installation, maintenance and reading of meters) being segregated into a newly created role of metering coordinator which will be open to competition. As there is no certainty at this stage as to the identity of the metering services provider the Economic Regulator proposes including a separate component,  $M_y$ , in the NMR formula to provide greater transparency in the presentation of the costs of providing retail electricity services to small customers.

The Economic Regulator was provided with a forecast of metering costs by Aurora Energy for Period 1. As noted in section 7.2, networks tariffs (including metering tariffs) to apply during 2016-17 are not expected to be approved by the AER until June 2016. For the purpose of this investigation, Aurora Energy has therefore applied an escalation factor to the AER approved 2015-16 metering tariffs to determine its forecast metering costs for 2016-17.

As the individual metering tariffs depend on the type of meter installed and whether the meter is a residential or business installation Aurora Energy has used a weighted average calculation per tariff to forecast the cost of metering for Period 1. The Economic Regulator is satisfied as to the reasonableness of Aurora Energy’s metering cost calculations and proposes using the forecast Metering Costs as shown in Table 7.9 in calculating the illustrative NMR.

**Table 7.9 Economic Regulator’s proposed decision - metering costs ( $M_y$ ) for the illustrative NMR**

	Period 1
Metering costs (\$m)	12.9

## 7.5 AEMO Costs - market fees and ancillary services fees

The Australian Energy Market Operator is an independent member based not-for-profit public company funded through participant fees. AEMO operates the energy markets and systems and also delivers planning advice in five regional market jurisdictions (Queensland, New South Wales, Victoria, South Australia and Tasmania) collectively referred as the NEM.

<sup>9</sup> <http://www.aemc.gov.au/Major-Pages/Power-of-choice>



### 7.5.1 Market fees

AEMO’s participant fees for the following financial year are determined by AEMO annually in May in accordance with the NER. Retailer’s market participant fees are levied on a dollar per MWh basis according to the registered participant’s customer load.

### 7.5.2 Ancillary services fees

AEMO is also responsible, under the NER, for ensuring that the power system is operated in a safe, secure and reliable manner. In order to fulfil this obligation AEMO controls key technical characteristics of the power system such as frequency and voltage and system restarts through the ancillary services market. The NER provide for AEMO to purchase these services, from frequency control ancillary service providers, and recover a proportion of these costs from retailers according to a set of recovery rules.

Ancillary service fees depend on the number of services required at any particular time and, as this can vary significantly from period to period, the fees will also vary from period to period.

The Economic Regulator has calculated Aurora Energy’s forecast AEMO market fees for Period 1 using the NTB and the DLF (as specified in sections 3.2.1 and 4.6 respectively of this Draft Report) and the estimated market fees for 2016-17 as provided in *AEMO’s Consolidated Final Budget and Fees: 2015-16*<sup>10</sup>.

The Economic Regulator also calculated Aurora Energy’s forecast ancillary service fees by multiplying the 12 month average cost (\$/MWh) of ancillary services, as provided by Aurora Energy during the 2015-16 standing offer price approval process, by the forecast small customer load (as specified in section 3.2.1 of this Draft Report).

The Economic Regulator’s therefore proposes adopting the forecast AEMO charges are shown in Table 7.10 Economic in calculating the illustrative NMR.

**Table 7.10 Economic Regulator’s proposed decision – AEMO charges for the illustrative NMR**

	Period 1
Market fees (\$m)	0.7
Ancillary service fees (\$m)	1.3
Total Market and ancillary charges (\$m)	2.0

<sup>10</sup> <http://www.aemo.com.au/About-AEMO/Corporate-Publications/Energy-Market-Budget-and-Fees>

## 7.6 Adjustments

### 7.6.1 Adjustments for cost under/over recoveries ( $K_y$ and $CF_y$ )

The components of the NMR used to determine prices for each period of the regulatory period are forecasts for the relevant period. Actual costs may differ from forecast costs with Aurora Energy either under recovering or over recovering costs.

As part of the annual standing offer price approval process the Economic Regulator proposes allowing the difference between forecast pass through costs and actual pass through costs for each period to be passed through to small customers in the next period through the inclusion of  $K_y$  and  $C_y$  in the calculation of the NMR. The difference between forecast and actual pass through costs will be included in  $K_y$  if the costs relate to a period covered by the 2016 Standing Offer Determination, or  $C_y$  if the costs relate to a period covered by the 2013 Standing Offer Determination.

### 7.6.2 Adjustments for tax events and material changes in circumstances ( $A_y$ )

Regulation 12 of the Pricing Regulations requires a price-regulated retail service price determination to allow for an adjustment to the prices charged by a regulated offer retailer, and to the price control mechanisms imposed on such a retailer, as a result of:

- (a) a tax event; or
- (b) a material change in circumstances in relation to the provision to small customers of services under standard retail contracts.

Given this requirement, the Economic Regulator included a component,  $A_y$ , in the NMR formula in the 2013 Standing Offer Determination and proposes to include  $A_y$  in the NMR formula for the 2016 Standing Offer Determination. The method, or principles, the Economic Regulator proposes adopting, if required, to determine  $A_y$  are specified in the 2016 Standing Offer Determination.

The process that must be followed if prices are to be adjusted during a determination are set out in Regulation 16 of the Pricing Regulations.

For the purposes of the illustrative NMR the Economic Regulator proposes setting the value of each of  $K_y$ ,  $CF_y$  and  $A_y$  to zero.

## 8 NOTIONAL MAXIMUM REVENUE

This Chapter shows the Economic Regulator’s calculation of an illustrative NMR in respect to Period 1 of the regulatory period.

### 8.1 Notional Maximum Revenue

As stated in section 2.3 maximum prices for small customers are proposed to be set by reference to the NMR that may be earned when the proposed Standing Offer prices are applied to a NTB.

The Economic Regulator has calculated an illustrative NMR for Period 1 of the regulatory period using the following formula (discussed in chapter 3):

$$\text{NMR}_y = (\text{R}_y + \text{WEC}_y + \text{NC}_y + \text{AEMO}_y + \text{M}_y + \text{RET}_y + \text{K}_y) \times \text{Margin}_y + \text{A}_y + \text{CF}_y$$

The Economic Regulator’s proposed decisions on the various components and inputs into the components in the NMR formula are discussed in the following chapters:

- the forecast load, forecast customer numbers and indexation (Chapter 3);
- Wholesale Electricity Costs (Chapter 4);
- Retail Margin (Chapter 5);
- Retail Cost-To-Serve (Chapter 6); and
- Pass-through costs (network, metering, AEMO and RET costs) (Chapter 7).

Based on those proposed decisions, the values for the NMR components and the NMR is as shown in Table 8.1.

**Table 8.1 Economic Regulator’s illustrative NMR for 2016-17 (Period 1)**

<b>NMR Component</b>	<b>NMR Amount</b>
Wholesale energy costs	\$120 240 799
Cost to serve	\$26 762 161
Network costs	\$248 400 000
AEMO charges	\$1 970 006
Metering costs	\$12 914 388
RET costs	\$27 276 862
<b>Sub-total</b>	<b>\$437 564 215</b>
Retail margin	\$24 941 160
<b>Total NMR</b>	<b>\$462 505 375</b>

As discussed in section 3.4 the actual NMR to apply for the regulatory period covered by the 2016 Standing Offer Determination will be determined during the annual standing offer approval process when the values for each component in this report will be updated to reflect the most recent values. The Economic Regulator will make its final decision on the NMR for Period 1 during the annual standing offer price approval process in June 2016.

## 8.2 NMR comparison

Table 8.1 shows that, in nominal 2016-17\$, the illustrative NMR for Period 1 under the 2016 Standing Offer Draft Determination is 3.95 per cent lower than the NMR for Period 3 (2015-16) under the 2013 Standing Offer Determination.

**Table 8.2 Comparison of NMRs – 2015-16 and 2016-17 (nominal 2016-17\$)**

	2015-16 (Period 3, 2013 Determination)	2016-17 (Period 1, 2016 Determination)
NMR (\$m)	481.546	462.505

## 8.3 Price impacts

In previous investigation reports the Economic Regulator has provided an estimate of the likely price changes that are expected to flow from the implementation of its determination. However, for the 2016 Standing Offer Determination this is not possible due to the number of NMR components that are subject to change (as explained in section 3.4) and due to the level and structure of standing offer prices not being finalised at this point in time.

On the latter point, the structure and level of standing offer prices for 2016-17 will not be finalised for the regulatory period until:

- Aurora Energy's Standing Offer Price Strategy has been consulted on and the resultant structure of standing offers has been finalised; and
- Aurora Energy submits its 2016-17 pricing proposal in 30 May 2016.

As explained in Chapter 9, the Draft Standing Offer Price Strategy is to be released for public comment in March 2016. The Economic Regulator will approve the final standing offer price strategy in April 2016.

## 8.4 Standing Offer Determination

The Economic Regulator's determination of maximum standing offer prices that Aurora Energy may charge small customers under standard retail contracts is attached as Appendix 2.

## 9 PRICE REFORM STRATEGIES AND APPROVAL OF STANDING OFFER PRICES

This Chapter discusses the Economic Regulator’s approach to Aurora Energy’s draft Standing Offer Price Strategy and the approach to be adopted for approving the standing offer prices in accordance with the standing offer price approval process under the 2016 Standing Offer Determination.

### 9.1 Background

Aurora Energy was required to prepare a Retail Tariff Strategy for the period 1 July 2008 to 30 June 2010 in accordance with a guideline issued under the 2007 Determination. The Guideline - *Approval of Retail Tariffs in accordance with the 2007 Determination Version 1* required Aurora Energy to consult with customers and other interested parties on its proposed strategies before submitting the strategy to the Economic Regulator for approval. This Retail Tariff Strategy was approved by the Economic Regulator in June 2008 with the Retail Tariff Strategy for the 2011-12 financial year approved by the Economic Regulator in April 2011<sup>1</sup>.

For the 2013 Determination, Regulation 6 of the Pricing Regulations provided that the Minister was to make a submission to the Economic Regulator in relation to each of the interim determinations the Economic Regulator was required to make under section 40AA(1) of the ESI Act.

In particular, Regulation 6(2) states that the Minister’s submission:

- (a) is to take into account the principles that the Regulator must take into account under section 40AB of the Act in making a determination under section 40AA of the Act; and
- (b) is to specify the interim pricing period; and
- (c) is to specify the structure and methodology to be applied in the determination; and
- (d) is to specify that the Regulator is only to approve under section 41 of the Act draft standing offer prices to be fixed by a regulated offer retailer under section 40 of the Act in accordance with the determination, if the prices are in accordance with a pricing structure specified in the determination; and
- (e) is to specify the pricing structure that is to be included, for the purposes of paragraph (d), in the determination; and

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<sup>1</sup> *Aurora Energy Final Revised Retail Tariff Strategy (April 2011)*.

- (f) may specify the cost to serve for the purposes of section 40AB of the Act; and
- (g) is to specify such other matters as the Minister thinks ought to be considered by the Regulator in taking into account the principles specified in section 40AB of the Act, in making a determination under section 40AA(1) of the Act in accordance with regulation 8.

In accordance with Regulation 6(2)(e) of the Pricing Regulations, the Government's submission specified the pricing structure that was to apply in the interim pricing period (1 January 2014 to 30 June 2016).

The Economic Regulator decided that it is not appropriate to maintain the existing Retail Tariff Strategy given that it related specifically to Aurora Energy under previous determinations. The Economic Regulator was required to conduct an investigation and determine standing offer prices for the two new retailers that would be intended, at that time, to replace Aurora Energy through the proposed sale of Aurora Energy's customer base. Given that the new retailers would not be known until late in the 2013 calendar year and the interim pricing period was to commence on 1 January 2014 there was insufficient time for the new retailers to submit a Standing Offer Price Strategy. The then Government's subsequent decision to defer the sale of Aurora Energy's customer base and the legislative requirement that the existing tariffs, tariff relativities and pricing structure were to be maintained meant that Aurora Energy was not required to submit a Standing Offer Price Strategy for the interim pricing period.

## 9.2 2016 Standing Offer Price Strategy

The expiry of the 2013 Standing Offer Determination will result in the lapse of the legislative requirement to maintain the existing level and structure of standing offer prices. Therefore the Economic Regulator required Aurora Energy to submit a Standing Offer Price Strategy for the regulatory period covered by the 2016 Standing Offer Determination.

The strategy was required to include Aurora Energy's proposals with respect to intended changes to the existing tariff structure, standing offer prices and details of the prices transition mechanism it intended to apply during the regulatory period.

As a precursor to submitting its Draft Strategy, Aurora Energy was also required to submit details of the high-level principles that would underpin its Draft Strategy. Aurora Energy submitted its *Retail Tariff Strategy Principles* in September 2015.

The principles emphasised Aurora Energy's desire to have flexibility in its standing offer prices in order to be able to compete with other retailers. The three key principles are as follows:

1. Enhancing Customer Choice - the ability to reflect any new network tariff or emerging market trends in new or amended standing offer prices.

2. Progression to Cost Reflective Standing Offer Tariffs - the ability to incrementally rebalance standing offer prices including relativities between fixed and variable, between residential and business, and between tariffs to take into account changes in supply costs.
3. Transparent and Simpler to Understand - the ability to amend standing offer prices to ensure they are relevant, market compliant and reflect the terms of underlying network tariffs.

Aurora Energy subsequently submitted its draft Standing Offer Price Strategy in November 2015. The Economic Regulator reviewed, and identified that the Draft Strategy was deficient in that it lacked detail about the proposed levels and structure of prices and the nature and timing of proposed price transition of customers from existing tariffs to proposed new tariffs. The Economic Regulator subsequently required Aurora Energy to submit, in February 2016, a revised draft Strategy which addressed the identified issues. The Economic Regulator intends seeking comments on the Draft Strategy during public consultation in March 2016.

After considering the comments received on the Draft Strategy, the Economic Regulator will approve Aurora Energy's final Standing Offer Price Strategy during April 2016.

### 9.3 Standing Offer Price Structure

In light of the Economic Regulator's decision to require Aurora Energy to resubmit its draft Standing Offer Price Strategy the Economic Regulator will review and make a decision on Aurora Energy's proposed pricing structure in the Final Report.

### 9.4 Network Tariff changes

Following recent National Electricity Rule changes, network prices are required to reflect the efficient cost of providing network services to individual consumers so that customers can make more informed decisions about their electricity usage. Specifically:

The distribution businesses must comply with four new pricing principles to achieve this objective:

- Each network tariff must be based on the long run marginal cost of providing the service. If consumers choose to take actions that will reduce future network costs, such as by reducing peak demand, then they will be rewarded with lower network charges. Network businesses will have flexibility about how they measure long run marginal cost.
- The revenue to be recovered from each network tariff must recover the network business' total efficient costs of providing services in a way that minimises distortions to price signals that encourage efficient use of the network by consumers.

- Tariffs are to be developed in line with a new consumer impact principle that requires network businesses to consider the impact on consumers of changes in network prices and develop price structures that are able to be understood by consumers. Consumers are more likely to be able to respond to the price signals that network prices are designed to send if they can relate their usage decisions to network price structures and sudden price changes are avoided. Network businesses can gradually phase-in new price structures.
- Network tariffs must comply with any jurisdictional pricing obligations imposed by state or territory governments. But if network businesses need to depart from the above principles to meet jurisdictional pricing obligations, they must do so transparently and only to the minimum extent necessary.<sup>2</sup>

Pricing based on the new pricing objective and pricing principles are required to start no later than 2017. The rule change also requires network businesses to consult with retailers and consumers on the network prices that they propose to apply from 2017 and submit an initial Tariff Structure Statement (TSS) to the AER.

In response to the rule change, TasNetworks has commenced the development of a network tariff strategy which is focussed on two areas:

1. Transitioning existing consumption based network tariffs to be more cost reflective; and
2. Offering demand-based network tariffs as a choice for customers.

TasNetworks has also released the following papers for consultation:

- TasNetworks, *Demand based network tariffs – offering a new choice*, Consultation paper, September 2015.
- TasNetworks, *Improving the way we price our network services*, Consultation paper, October 2015.

The Economic Regulator understands that TasNetworks submitted its TSS to the AER on 29 January 2016.

The timing of the implementation of these changes and how Aurora Energy proposes reflecting the impact of any network tariff changes in its standing offer prices will be critical to outcomes for standing offer customers during the regulatory period and will be assessed and consulted on as part of Aurora Energy's draft Standing Offer Price Strategy.

## 9.5 Standing offer price approvals

Under sections 40(1) and 40(4) respectively of the ESI Act, Aurora Energy, as a regulated offer retailer, is not permitted to fix or amend its standing offer prices unless the Economic Regulator has approved the fixing or amending of those prices.



Additionally, under section 41 of the ESI Act:

- (1) A standing offer price may not be fixed under section 40(1), and an amendment of a standing offer price may not be made under section 40(4), unless-
  - (a) a draft of the standing offer price, or a draft amendment of the standing offer price, has been approved by the Regulator under subsection (3); and
  - (b) the standing offer price fixed, or the draft amendment made, is in the same terms as the draft of the standing offer price, or the draft amendment of the standing offer price, approved by the Regulator under subsection (3).

Further clause 5 of the 2016 Standing Offer Draft Determination requires that:

Draft standing offer prices are to be submitted to the Regulator for approval in accordance with the *Electricity Supply Industry Act 1995* and the annual standing offer price approval process.

The annual standing offer price approval process is specified in a draft guideline which the Economic Regulator has prepared and issued for public consultation.

The guideline sets out Aurora Energy's obligations including the timeframes for the submission of its standing offer pricing proposals for Periods 1, 2 and 3 of the regulatory period together with the Economic Regulator's responsibilities under the 2016 Standing Offer Draft Determination.

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<sup>2</sup> <http://www.aemc.gov.au/getattachment/0ec31ed0-9f7c-40ea-ac23-889dce0259c3/Information-sheet.aspx>



# APPENDIX 1 NOTICE OF INTENTION TO CONDUCT PRICING INVESTIGATION

**OFFICE of the  
TASMANIAN  
ECONOMIC  
REGULATOR**



**Notice of intention to conduct a Price-regulated Retail Service (Standing Offer) pricing investigation**

*Electricity Supply Industry Act 1995*

*Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*

The *Electricity Supply Industry Act 1995* requires the Tasmanian Economic Regulator to make a standing offer pricing determination, which must either set the maximum prices that may be charged by a regulated offer retailer under standard retail contracts in respect of small customers; or a method of determining the maximum prices that may be charged by a regulated offer retailer under standard retail contracts in respect of small customers.

The determination will apply to a regulatory period that commences on 1 July 2016 and ends on 30 June 2019. The Final investigation report will be released, and the determination will be made, on or before 29 April 2016.

Before the Economic Regulator makes a determination, the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* require the Economic Regulator to conduct a pricing investigation.

The objective of the pricing investigation is to gather information to assist the Economic Regulator in making a determination.

The Economic Regulator will publish a draft report and draft determination by 31 January 2016. Written submissions (preferably by email) on the draft report and draft determination can be made to the Economic Regulator during a consultation period ending on 15 March 2016.

In accordance with the matters the Economic Regulator is required to consider in determining the standing offer price, submissions on the draft report and draft determination will be invited on issues including the following relating to the standing offer price:

- (a) any interstate or international benchmarks for prices, costs, revenues and return on assets in bodies providing a service similar to the services, under a standard retail contract with a small customer, to which the determination relates;
- (b) the effects of inflation;
- (c) the impact on pricing policies of any borrowing, capital, dividend, and taxation, obligations of the regulated offer retailer, including obligations to renew or increase assets;
- (d) the quality of the provision of services to small customers under standard retail contracts of the regulated offer retailer;

(e) any licence, obligation or retailer authorisation under the Act, any regulations made under the Act, the National Energy Retail Law (Tasmania), the National Energy Retail Regulations (Tasmania), the National Energy Retail Law (Tasmania) Act 2012 and any regulations made under that Act, that apply, or are likely to apply, to the regulated offer retailer;

(f) the Tasmanian Electricity Code;

(g) the National Electricity Rules;

(h) any costs (including capital expenditure) incurred by the regulated offer retailer at the direction of the Regulator;

(i) the public interest;

The Economic Regulator's draft report and draft determination will be available on the Economic Regulator's website: [www.economicregulator.tas.gov.au](http://www.economicregulator.tas.gov.au).

For further information regarding this notice please contact:

Mr Todd Newett  
Office of the Tasmanian Economic Regulator  
Phone: (03) 6166 4422  
Email: [office@economicregulator.tas.gov.au](mailto:office@economicregulator.tas.gov.au)

# APPENDIX 2 STANDING OFFER DRAFT DETERMINATION



**AURORA ENERGY PTY LTD**

**2016 STANDING OFFER DRAFT DETERMINATION**

Issued: 5 February 2016

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The Tasmanian Economic Regulator –

- (a) having conducted an investigation under Regulation 9 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* into the maximum prices that may be charged by Aurora Energy under standard retail contracts in respect of small customers; and
- (b) having complied with the *Electricity Supply Industry Act 1995* and Regulations 12 and 13 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*;

makes the following Determination under section 40AA of the *Electricity Supply Industry Act 1995*.

Dated: 5 February 2016

Joe Dimasi  
**TASMANIAN ECONOMIC REGULATOR**

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## **PART 1 – PRELIMINARY**

### **Commencement date, effective date and expiry date**

1. In accordance with Regulation 8(3) of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*, this Determination takes effect on 1 July 2016 and remains in effect until 30 June 2019.

### **Interpretation**

2. (a) Words have the same meaning as defined in this determination. Expressions not defined in this determination have the same meaning as they have in the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* and the *Electricity Supply Industry Act 1995*.

(b) In this Determination –

“**AEMO**” means the Australian Energy Market Operator (ABN 94 072 010 327);

“**AEMO charges**” mean the annual charges imposed on National Energy Market participants by AEMO;

“**adjustment**” has the same meaning as it has in regulation 16 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*;

“**annual standing offer price approval process**” means the process outlined in any guideline issued by the Regulator relating to the approval of standing offer prices under this Determination;

“**Aurora Energy**” means Aurora Energy Pty Ltd ABN 85 082 464 622 and its successors;

“**Consumer Price Index**” or “**CPI**” means the All Groups CPI index number for the weighted average of eight capital cities, published by the Australian Bureau of Statistics under the *Census and Statistics Act 1905 (Cwlth)* (as amended from time to time);

“**GWh**” means gigawatt-hour (one gigawatt-hour is equivalent to 1 000 megawatt-hours or 1 000 000 kilowatt-hours);

“**Hydro Tasmania**” means the Hydro-Electric Corporation (ABN 48 072 377 158);

“**kVA**” means KiloVolt-Ampere (kVA measures the apparent energy being consumed and is used to measure demand);

“**kWh**” means a kilowatt hour, the amount of energy used at a constant rate of one kilowatt for one hour (one kilowatt-hour is equivalent to 1 000 watt hours);

“**MW**” means megawatt;

“**MWh**” means megawatt hour (one megawatt-hour is equivalent to 1 000 kilowatt-hours);

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**“network tariff”** means the applicable schedule of tariffs (including the rate or rates) as approved by the Australian Energy Regulator (as amended from time to time) that Aurora Energy uses to calculate the amount it charges customers, or a class of customers, for network services and metering services;

**“notional maximum revenue”** means Aurora Energy’s notional maximum revenue as calculated for each of Period 1, Period 2 and Period 3 in accordance with the formula in clause 7;

**“notional tariff base”** means the forecast small customer loads and forecast small customer numbers as set out in Table 7 and Table 8 and as forecast by Aurora Energy as part of the annual standing offer price approval process;

**“Period 1”** means the period commencing on 1 July 2016 to 30 June 2017;

**“Period 2”** means the period commencing on 1 July 2017 to 30 June 2018;

**“Period 3”** means the period commencing on 1 July 2018 to 30 June 2019;

**“prescribed inflationary factor”** has the same meaning as it has in clause 3 of this Determination;

**“reference rate”** means the monthly 90-day Bank Accepted Bill rate published by the Reserve Bank of Australia. The rate to apply in each quarter is the rate for the second month preceding the start of each new quarter. The reference rate will apply from the first business day of each new quarter up to and including the last business day of that quarter;

**“regional reference node”** has the same meaning as it has in the National Electricity Rules;

**“regulatory period”** means the period commencing on 1 July 2016 to 30 June 2019;

**“Regulator”** has the same meaning as it has in the *Electricity Supply Industry Act 1995*;

**“retail margin”** means the Regulator’s allowance to compensate Aurora Energy for its investment in the business and the risks it assumes in providing standard retail services to small customers;

**“Standing Offer Price Strategy”** means Aurora Energy’s Final Standing Offer Price Strategy approved by the Regulator on [DD MMM YYYY];

**“small customer”** has the same meaning as it has in the *Electricity Supply Industry Act 1995*;

**“standard retail contract”** has the same meaning as it has in the *Electricity Supply Industry Act 1995*;

**“standard retail services”** has the same meaning as it has in section 40AB(6) of the *Electricity Supply Industry Act 1995*;

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**“standing offer prices”** has the same meaning as it has in the *Electricity Supply Industry Act 1995*; and

**“wholesale electricity price”** means the Regulator’s estimate of the price Aurora Energy pays to purchase electricity for the purpose of providing standard retail services to small customers.

### Prescribed inflationary factor

3. For the purposes of this Determination, the prescribed inflationary factor is to be calculated as follows:

$$(a) \text{ Period 2} = \left( \frac{\text{CPI}_{\text{Mar}2014} + \text{CPI}_{\text{Dec}2013} + \text{CPI}_{\text{Sep}2013} + \text{CPI}_{\text{Jun}2013}}{\text{CPI}_{\text{Mar}2013} + \text{CPI}_{\text{Dec}2012} + \text{CPI}_{\text{Sep}2012} + \text{CPI}_{\text{Jun}2012}} \right)$$

$$(b) \text{ Period 3} = \left( \frac{\text{CPI}_{\text{Mar}2015} + \text{CPI}_{\text{Dec}2014} + \text{CPI}_{\text{Sep}2014} + \text{CPI}_{\text{Jun}2014}}{\text{CPI}_{\text{Mar}2013} + \text{CPI}_{\text{Dec}2012} + \text{CPI}_{\text{Sep}2012} + \text{CPI}_{\text{Jun}2012}} \right)$$

The subtext (for example, ‘CPI<sub>Mar 2016</sub>’) when used in relation to the above means the CPI for the March quarter in the year 2016.

## **PART 2 – MAXIMUM PRICES**

### **Calculation of maximum prices**

#### **4.**

- (a) The maximum prices that Aurora Energy may charge in respect of standard retail services provided to small customers under standard retail contracts during the term of this Determination are to be calculated in accordance with the principles outlined in clause 6.
- (b) For the avoidance of doubt, the maximum prices calculated in accordance with clause 6 of this determination do not include the late payment fees and interest on overdue accounts listed in Table 5.

### **Approval of standing offer prices under this Determination**

- 5. Draft standing offer prices are to be submitted to the Regulator for approval in accordance with the *Electricity Supply Industry Act 1995* and the annual standing offer price approval process.

### **Notional Maximum Revenues**

#### **6.**

- (a) For each of Periods 1, 2 and 3 and for the purposes of this clause and clause 7, Aurora Energy is required to provide details of its notional tariff base in accordance with the requirements of Part 4 of this Determination during the annual standing offer price approval process.
- (b) In Period 1, and for the purposes of this clause and clause 7, the tariffs that will apply to small customers are specified in Table 4.
- (c) The maximum prices that Aurora Energy may charge (other than in relation to charges specified in Table 5) in respect of small customers for the tariffs that are to apply each period are to be determined in accordance with the following principle:

If the price for each tariff were to be applied to the load and billing day schedule for the notional tariff base for each tariff as provided as provided by Aurora Energy and approved by the Regulator during the annual standing offer price approval process, for each of Periods 1, 2 and 3, the aggregate of the results so obtained will not exceed the notional maximum revenue calculated in accordance with clause 7 for the relevant period.

- (d) The maximum prices determined under clause 6(c) are subject to clauses 8 and 9.
-

7. For the purposes of clause 4 and clause 6, the notional maximum revenue ( $NMR_y$ ) for Period 1, Period 2 and Period 3 is calculated in accordance with the following formula:

$$NMR_y = (R_y + WEC_y + NC_y + M_y + AEMO_y + RET_y + K_y) \times Margin_y + A_y + CF_y$$

Where:

$y$  is the relevant period (ie Period 1, Period 2 or Period 3)

$NMR_y$  is the notional maximum revenue for the notional tariff base (as calculated during in the annual standing offer price approval process)

$R_y =$  cost to serve $_y$  x forecast number of small customers $_y$

where: the forecast number of small customers $_y$  for the notional tariff base for each of Periods 1, 2 and 3 is as provided by Aurora Energy and approved by the Regulator during the annual standing offer price approval process.

**Cost to serve $_y$**  means the amount estimated to represent the cost of providing services to small customers under standard retail contract during each period as presented in Table 2, escalated by the appropriate prescribed inflationary factor.

**Table 2: Cost to Serve $_y$  (real 2015-16\$)**

Cost to Serve $_y$ (\$/customer)	114.64
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Other than to account for inflation, the cost to serve allowance will not be adjusted as part of the annual standing offer price approval process.

**WEC $_y$**  means the wholesale energy cost calculated as the forecast small customer load $_y$  x MLF $_y$  x DLF $_y$  x WEP $_y$  where the forecast small customer load $_y$  for each of Periods 1, 2 and 3 is as provided by Aurora Energy and approved by the Economic Regulator during the annual standing offer price approval process.

**MLF $_y$**  means the load weighted average marginal loss factor at the regional reference node for Tasmania for the relevant period as approved by the Economic Regulator during the annual standing offer price approval process.

**DLF $_y$**  means the load weighted average distribution loss factor for the relevant period as approved by the Regulator during the annual standing offer price approval process.

**WEP $_y$**  means the wholesale energy price and is calculated by the Regulator in accordance with a methodology that complies with sections 40AB(3) of the *Electricity Supply Industry Act 1995* and any guidelines issued by the Regulator.

The Regulator will calculate the applicable wholesale electricity price for each period during the annual standing offer price approval process.

**$NC_y$**  means the network costs derived by multiplying network tariffs<sub>y</sub> by the notional tariff base<sub>y</sub>. The Regulator will estimate network costs for each period during the annual standing offer price approval process.

**$M_y$**  means the forecast metering costs as approved by the Regulator. The Regulator will estimate metering costs for each period during the annual standing offer price approval process.

**$AEMO_y$**  means the forecast charges, as billed by AEMO for market participation and ancillary services for each period. The Regulator will estimate AEMO charges for each period during the annual standing offer price approval process.

**$RET_y$**  means the forecast cost of complying with the Australian Government's mandatory renewable energy schemes for each period. The Regulator will estimate RET costs for each period during the annual standing offer price approval.

**$K_y$**  means over or under recoveries from a previous period covered by this Determination in relation to changes in network costs, RET costs and AEMO charges attributable to the notional tariff base as approved by the Regulator.

**$CF_y$**  is an aggregate of under and/or over recoveries from previous periods covered by the 2013 Standing Offer Determination as approved by the Regulator.

**$Margin_y$**  means a factor applied to total costs in each period as set out in Table 3.

**Table 3: Retail Margin**

	Period 1	Period 2	Period 3
Margin <sub>y</sub>	1.057	1.057	1.057

The retail margin is set for the duration of the regulatory period and will not be adjusted as part of the annual standing offer price approval process.

**$A_y$**  is an adjustment calculated in accordance with a methodology approved by the Regulator, consistent with Regulation 12 and Regulation 16 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*, as detailed in any guidelines issued by the Regulator.

## **PART 3 – STANDING OFFER TARIFF SCHEDULE and OTHER CHARGES**

### ***Standing Offer tariff schedule***

8. Aurora Energy's standing offer tariffs for Period 1 are listed in Table 4 and will be updated to account for the outcomes from consultation on Aurora Energy's Standing Offer Draft Price Strategy.
9. Changes to Aurora Energy's standing offer tariffs for Periods 2 and 3 will need to be consistent with Aurora Energy's approved Standing Offer Price Strategy.

**Table 4: Standing Offer Tariffs**

Tariffs	Category	Description
31	Residential	Residential Light and Power
41	Residential	Hot Water
42	Residential	HydroHeat (hot water and space heating)
61	Residential	Off-Peak afternoon boost
62	Residential	Off-Peak night only
<hr/>		
22	Business	General
34	Business	Nursing Home light and power
36C	Business	Curtilage discount (Tariff 22)
43	Business	Institutional hot water
73	Business	Irrigation low rate
74	Business	Irrigation high rate
75	Business	Irrigation (Time-of-Use)
82	Business	Monthly kVA demand low voltage
83	Business	Industrial kW demand low voltage
85	Business	Monthly kVA demand high voltage
86	Business	Industrial kW demand high voltage

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**Other charges**

10. Aurora Energy is permitted to impose other charges as specified in Table 5.

**Table 5: Other Charges**

Charge	Amount/Calculation	Description
Late payment fee	\$5	Late payment fee for accounts not paid in full by the fifth day past the due date.
Interest on overdue accounts	$[(N/365) \times I] \times O$	Interest calculated on accounts not paid in full by the fifth day past the due date where: N = the number of days the account is overdue. I = the reference rate + 6% O = the overdue amount.

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***PART 5 – MISCELLANEOUS PROVISIONS***

12. The Regulator's decision in respect of all matters to do with the Determination will be final and no correspondence will be entered into.
  13. This Determination is administered by the Regulator.
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