



**AURORA ENERGY**

**2013 STANDING OFFER DETERMINATION  
PRICING PROPOSAL - PERIOD 3**

**1 JULY 2015 – 30 JUNE 2016**

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## 1.0 Pricing Proposal for Period 3 (01/07/2015 to 30/06/2016)

### 1.1 Introduction

The third period of the 2013 Standing Offer Determination (the Determination) has resulted in an overall price increase to all Tasmanian Standing Offer customers. The components that have had the greatest influence on the Standing Offer price increase are:

- Network Charges
- Renewable Energy Certificates (REC)

The price impact of these respective components will be partially offset by reductions in the Wholesale Energy Price (WEP) and loss factor adjustment in Period 3.

The final outcome for Tasmanian Standing Offer customers is an overall average price increase of 1.95% from 1 July 2015.

The increase is primarily driven by increased network charges (contributing +2.19%), REC and market charges (contributing +0.77%) and retail charges (contributing +0.28%) being partially offset by a reduction in the wholesale energy price (contributing -0.63%) and loss factor and other adjustments (contributing -0.66%).

Chart 1 illustrates the makeup of the Notional Maximum Revenue (NMR) underlying this proposal for Period 3 of the 2013 Standing Offer Determination.

**Chart 1:** Notional Maximum Revenue (NMR) Cost Stack

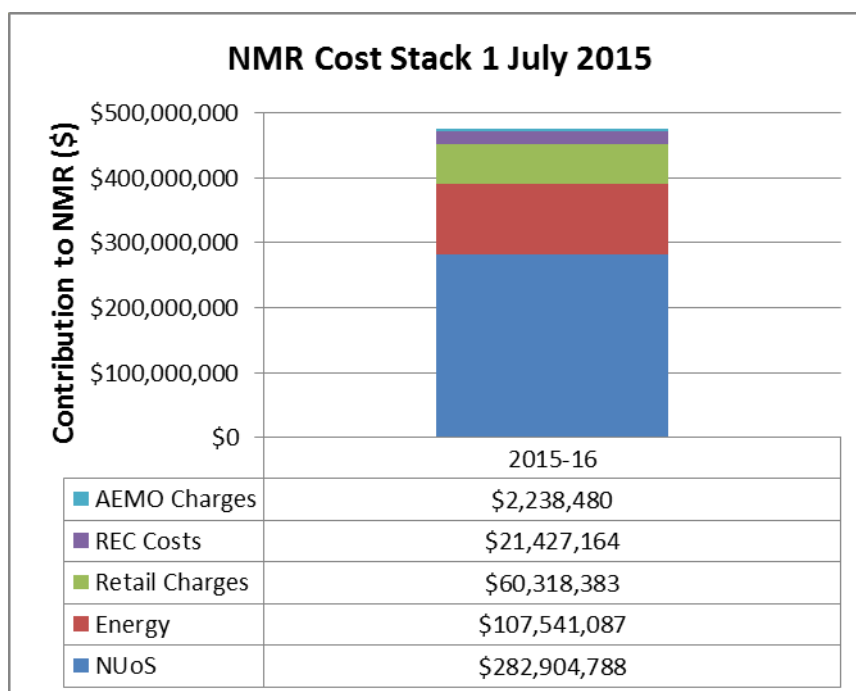


Table 1 summarises the outcomes in terms of the 2013 Standing Offer Determination NMR for each of the variables, and indicates in which section of this Submission the relevant calculations are considered.

**Table 1: Standing Offer Cost Element Values**

<b>Cost Element</b>	<b>Value</b>	<b>Submission Reference</b>
R <sub>y</sub>	\$143,977,265	S1.2.1.1
NC <sub>y</sub>	\$282,904,788	S1.2.1.2
AEMO <sub>y</sub>	\$2,067,882	S1.2.1.3
RET <sub>y</sub>	\$19,792,779	S1.2.1.4
K <sub>y</sub>	\$1,804,984	S1.2.1.5
A <sub>y</sub>	(\$1,702,000)	S1.2.1.6
Margin <sub>y</sub>	5.70%	From Determination
<b>NMR</b>	<b>\$474,429,903</b>	<b>S1.2.1.7</b>

## 1.2 Calculation of NMR

In calculating the NMR for the 2013 Standing Offer Determination the following formula is to be applied:

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

where:

- NMR<sub>y</sub> is the allowable notional maximum revenue to be earned from the notional tariff base
- R<sub>y</sub> represents the sum of the energy costs plus cost to serve for the notional tariff base
- NC<sub>y</sub> represents the network charges for the notional tariff base
- AEMO<sub>y</sub> represents the market participant fees and ancillary services for the notional tariff base
- RET<sub>y</sub> represents the cost of acquiring Renewable Energy Certificates for the notional tariff base
- K<sub>y</sub> represents any under or over recoveries from a previous periods covered by the 2013 Standing Offer Determination
- A<sub>y</sub> represents adjustments calculated in accordance with a methodology approved by the Regulator
- Margin<sub>y</sub> is 5.70% (as per the specification of the 2013 Standing Offer Determination for margin in Period 3 of 1.057)

## 1.2.1 Calculation of NMR - Period 3 of the 2013 Standing Offer Determination

### 1.2.1.1 $R_y$

The below formula is used to calculate  $R_y$

[Forecast load x Distribution Loss Factor x Transmission Loss Factor x Energy Price] + [Cost to Serve x Prescribed Inflationary Factor x forecast number of customers]

Table 2 contains the inputs used to calculate  $R_y$

**Table 2:**

Parameter	Value	Source
Forecast Load	1,990.94 GWh	NMR July 2015
Distribution Loss Factor	1.0517	Spreadsheet – Loss Factors 2015-16
Transmission Loss Factor	1.0015	Spreadsheet – Loss Factors 2015-16
Energy Price	5.1283 c/kWh	Tasmanian Economic Regulator
Cost to Serve	\$152.00	Determination – Table 2 Period 3
Prescribed Inflationary Factor	1.0470	Tasmanian Economic Regulator
Forecast Customer Numbers	228,951	NMR July 2015

The Transmission and Distribution Loss Factors quoted above are based on the 2015-16 loss factors published by AEMO, and are calculated as a load weighted average for the notional tariff base. The detailed calculations are contained in the spread sheet 'Loss Factors 2015-16.xls' which accompanies this Proposal.

The calculation of  $R_y$  is therefore:

$$\begin{aligned} & [1,990.94 \times 1,000,000 \times 1.0517 \times 1.0015 \times 5.1283 / 100] + [228,951 \times \$152.00 \\ & \times 1.0470] \\ & = \\ & [\$107,541,087] + [\$36,436,178] = \mathbf{\$143,977,265} \end{aligned}$$

#### 1.2.1.2 $NC_y$

$NC_y$  is calculated by applying the AER approved network tariffs for the 2015-16 regulatory year, to the forecast notional tariff base loads.

The value of  $NC_y$  in Period 3 of the 2013 Standing Offer Determination is **\$282,904,788**.

#### 1.2.1.3 $AEMO_y$

The value of  $AEMO_y$  in Period 3 of the 2013 Standing Offer Determination has been forecast by applying the AEMO 2015-16 market charge plus the forecast ancillary charges rate multiplied by the forecast Period 3 load. By applying this calculation the value of  $AEMO_y$  for Period 3 is **\$2,067,882**.

#### 1.2.1.4 $RET_y$

The value of  $RET_y$  in Period 3 of the 2013 Standing Offer Determination has been forecast by applying the Clean Energy Regulator's binding 2015 Renewable Power Percentage (RPP) and Small-scale Technology Percentage (STP) and the non-binding RPP and STP percentages for 2016 to the forecast load for Period 3. By applying this calculation the value of  $RET_y$  for Period 3 is **\$19,792,779**.

#### 1.2.1.5 $K_y$

The initial value of  $K_y$  in Period 3 is **\$1,804,984**, due to an overall under-recovery of  $AEMO_y$  and  $RET_y$  charges from Period 1 & Period 2 of the 2013 Standing Offer Determination. The detailed calculations of this amount are provided in the attachment to this Proposal 'Prior Years Adjustments Submission – May 2015'.

Due to protracted decision making by the Federal Government on the RET and the associated market price volatility over the course of Period 2, Aurora Energy will not seek a full recovery REC costs for Period 2. Aurora Energy will forgo \$1,086,089 in Period 2 REC under recoveries through a commensurate reduction in the total NMR to be recovered in Period 3.

#### 1.2.1.6 $A_y$

As confirmed in the letter dated 21 November 2014, the Tasmanian Economic Regulator has required Aurora Energy pass back a total of **\$1,702,000** in relation to distribution loss factors after TasNetworks calculated them incorrectly for 2014-15, which partially covered Period 1 of the Determination.

The distribution loss factors decreased from 7.13% in Period 1 to 4.84% in Period 2, a reduction of 2.29%. This reduction was driven by data reporting

improvements by TasNetworks in preparation for Full Retail Contestability on 1 July 2014. During this process, TasNetworks identified several errors within their data which resulted in an inflated loss factor being set and approved for Period 1 of the Determination.

### 1.2.1.7 NMR

NMR for Period 3 of the 2013 Standing Offer Determination is shown below:

**Table 3:**

Cost Element	Value
R <sub>y</sub>	\$143,977,265
NC <sub>y</sub>	\$282,904,788
AEMO <sub>y</sub>	\$2,067,882
RET <sub>y</sub>	\$19,792,779
K <sub>y</sub>	\$1,804,984
A <sub>y</sub>	(\$1,702,000)
Margin <sub>y</sub>	\$25,584,205
<b>NMR</b>	<b>\$474,429,903</b>

### 1.2.2 Average Price Change

As described in section 1.2.1.5 Aurora Energy will not seek to recover the total allowable NMR and will recover the allowable NMR less \$1,086,089. Therefore to achieve in Period 3, the allowable NMR less \$1,086,089, prices will be required to increase by **1.95%**.

These calculations are located in the spread sheet 'NMR 1 July 2015.xls' under the tab 'Retail Prices'.

## 1.3 Changes to the Tariff Schedule

### 1.3.1 Removal of Tariff 73/74 – Irrigation (obsolete)

From 1 July 2015 Aurora Energy seeks to have the Irrigation - Tariff 73/74 removed from the Standing Offer price schedule. Tariff 73/74 has been obsolete since 30 June 2012, and no new customers have been connected to this tariff from that date.

Aurora Energy can confirm that there are no longer any customers being supplied under this tariff as they have all been transitioned to Irrigation ToU –

Tariff 75. As there are no benefits to customers by having Aurora Energy maintain an obsolete tariff, Aurora Energy seeks approval for Tariff 73/74 to be removed from the Standing Offer price schedule.

### 1.3.2 Removal of Tariff 83 – Industrial low voltage demand (obsolete)

From 1 July 2015 Aurora Energy seeks to have the Industrial low voltage demand – Tariff 83 removed from the Standing Offer price schedule. Tariff 83 has been obsolete since 31 December 2004, and no new customers have been connected to this tariff from that date.

Aurora Energy can confirm that there are no longer any customers being supplied under this tariff as they have all been transitioned to Monthly kVa demand low voltage – Tariff 82. As there are no benefits to customers by having Aurora Energy maintain an obsolete tariff, Aurora Energy seeks approval for Tariff 83 to be removed from the Standing Offer price schedule.

## 1.4 Proposed Period 3 Prices

The Table below shows the proposed July 2015 – June 2016 prices, exclusive of GST:

**Table 4:**

Retail Tariff	Fixed Charges	Energy Step 1	Energy Step 2	Energy Step 3	Energy Peak	Energy Shoulder	Energy Off-Peak	Demand
	c/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	\$/kW or kVa
22	87.788	31.248	22.938	-	-	-	-	-
31	81.263	22.909	-	-	-	-	-	-
34	123.093	28.976	22.529	18.955	-	-	-	-
36C	70.230	-	-	-	-	-	-	-
41	15.739	13.816	-	-	-	-	-	-
42	15.739	13.816	-	-	-	-	-	-
43	15.739	13.816	-	-	-	-	-	-
61	19.944	11.123	-	-	-	-	-	-
62	19.944	10.477	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-
75	247.432	-	-	-	27.699	21.625	13.513	-
82	275.233	14.140	-	-	-	-	-	179.742
83	-	-	-	-	-	-	-	-
85	269.952	12.447	-	-	12.447	12.447	12.447	103.001



The following Table shows the percentage change over the July 2014 prices:

**Table 5:**

<b>Retail Tariff</b>	<b>Fixed Charges</b>	<b>Energy Step 1</b>	<b>Energy Step 2</b>	<b>Energy Step 3</b>	<b>Energy Peak</b>	<b>Energy Shoulder</b>	<b>Energy Off-Peak</b>	<b>Demand</b>
	<b>c/day</b>	<b>c/kWh</b>	<b>c/kWh</b>	<b>c/kWh</b>	<b>c/kWh</b>	<b>c/kWh</b>	<b>c/kWh</b>	<b>\$/kW or kVa</b>
22	1.95%	1.95%	1.95%	-	-	-	-	-
31	1.95%	1.95%	-	-	-	-	-	-
34	1.95%	1.95%	1.95%	1.95%	-	-	-	-
36C <sup>1</sup>	16.52%	-	-	-	-	-	-	-
41	1.95%	1.95%	-	-	-	-	-	-
42	1.95%	1.95%	-	-	-	-	-	-
43	1.95%	1.95%	-	-	-	-	-	-
61	1.95%	1.95%	-	-	-	-	-	-
62	1.95%	1.95%	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-
75	1.95%	-	-	-	1.95%	1.95%	1.95%	-
82	1.95%	1.95%	-	-	-	-	-	1.95%
83	-	-	-	-	-	-	-	-
85	1.95%	1.95%	-	-	-	-	-	1.95%

<sup>1</sup> Excludes increase due to wind down of the curtilage discount at the rate of 10% each year over 10 years.

Final prices including GST, submitted for approval, are:

**Table 6:**

Retail Tariff	Fixed Charges	Energy Step 1	Energy Step 2	Energy Step 3	Energy Peak	Energy Shoulder	Energy Off-Peak	Demand
	c/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	\$/kW or kVa
22	96.567	34.372	25.232	-	-	-	-	-
31	89.389	25.200	-	-	-	-	-	-
34	135.403	31.874	24.781	20.851	-	-	-	-
36C	77.253	-	-	-	-	-	-	-
41	17.312	15.197	-	-	-	-	-	-
42	17.312	15.197	-	-	-	-	-	-
43	17.312	15.197	-	-	-	-	-	-
61	21.939	12.235	-	-	-	-	-	-
62	21.939	11.524	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-
75	272.175	-	-	-	30.469	23.788	14.864	-
82	302.757	15.554	-	-	-	-	-	197.716
83	-	-	-	-	-	-	-	-
85	296.947	13.692	-	-	-	-	-	113.302

## 1.5 Customer Impacts

All standing offer customers will experience a price increase of 1.95% from the prices set in July 2014.

The Aurora Energy customer impact model is drawn from a large sample of Tasmanian customers and provides a reliable picture of Tasmanian customer impacts.

The application of the price increase in this proposal remains consistent with the principles outlined in Aurora Energy's Final Revised Retail Tariff Strategy (April 2011) i.e. any increases/decreases have been applied equally to fixed and variable components of each tariff.

Consistent with this approach, the proposed 1.95% price increase will be applied evenly across all components of each tariff.

The change in quarterly bills shown below is based on the consumption data given in the Regulator's Information Paper 'Typical Electricity Customers' of May 2014.

### 1.5.1 Residential quarterly cost impacts.

The quarterly bill increases for typical residential customers are shown in the following Table:

**Table 7:**

<b>Tariff</b>	<b>Low Consumption</b>	<b>Medium Consumption</b>	<b>High Consumption</b>
Tariff 31	\$2.63	\$5.06	\$8.60
Tariff 31 & 41	\$5.29	\$8.23	\$12.35
Tariff 31 & 42	\$6.35	\$9.43	\$13.88
Tariff 31, 41 & 61	\$7.09	\$10.50	\$15.99
Tariff 31, 42 & 61	\$8.04	\$11.66	\$17.22

### 1.5.2 Small Business quarterly cost impacts

The quarterly bill increase for typical small business customers are shown in the following Table:

**Table 8:**

<b>Tariff</b>	<b>Low Consumption</b>	<b>Medium Consumption</b>	<b>High Consumption</b>
Tariff 22	\$3.89	\$7.88	\$16.29
Tariff 22 & 61	\$8.97	\$25.72	\$57.97
Tariff 22 & 43	\$6.49	\$18.03	\$60.44
Tariff 22, 43 & 61	\$18.19	\$48.66	\$89.69

### 1.5.3 Irrigation customer impacts

There are no 'typical' Irrigation installations. Therefore it is not possible to calculate 'typical' customer impacts. Since all tariff components are increased at the same rate of 1.95%, the cost increase for each of these customers will be 1.95%.

#### 1.5.4 Demand customer impacts

There are no 'typical' demand tariff installations. Therefore it is not possible to calculate 'typical' customer impacts. Since all tariff components are increasing at the same rate of 1.95%, the cost increase for each of these customers will be 1.95%.

### 1.6 Revenue Check

The proposed prices, excluding GST, when applied to the Period 3 forecast load and customer numbers, produce total revenue within the Notional Maximum Revenue as calculated in Section 1.2.1.7 above. The detailed calculations are given in the spread sheet 'NMR July 2015.xls' under the tab 'Retail Prices'. The Table 9 summarises the revenue outcomes:

**Table 9:**

Tariff	Fixed Charges	Energy Step 1	Energy Step 2	Energy Step 3	Energy Peak	Energy Shoulder	Energy OffPeak	Demand Step 1	Total Revenue
22	10,079,622	12,530,474	71,026,603	-	-	-	-	-	93,636,698
31	60,232,471	170,442,678	-	-	-	-	-	-	230,675,149
34	13,966	12,699	6,574	75,464	-	-	-	-	108,703
36C	753,393	-	-	-	-	-	-	-	753,393
41	3,963,319	28,774,693	-	-	-	-	-	-	32,738,012
42	6,823,080	78,808,548	-	-	-	-	-	-	85,631,628
43	85,713	1,134,855	-	-	-	-	-	-	1,220,568
61	1,552,613	4,047,404	-	-	-	-	-	-	5,600,017
62	180,299	623,595	-	-	-	-	-	-	803,894
73	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-
75	2,366,331	-	-	-	9,867,106	905,765	2,659,667	-	15,798,870
82	125,919	1,116,507	-	-	-	-	-	5,071,817	6,314,244
83	-	-	-	-	-	-	-	-	-
85	1,976	-	-	-	1,947	2,368	5,157	51,189	62,637
Total Revenue:									<b>473,343,814</b>
Notional Maximum Revenue:									<b>474,429,903</b>

## 2.0 Additional Charges

The Additional Charges applying from 1 July 2015 are shown in table 10:

**Table 10:**

<b>Additional Charges</b>	<b>2015-16 Price</b>
A late payment fee of \$5.00 applies for accounts not paid in full by the fifth day past the due date (Pensioner, Health Care Card and other exemptions apply).	<b>\$5.00</b>

## 3.0 Document References

**Table 11:**

<b>Topic</b>	<b>Proposal Section</b>	<b>Source Document Name</b>	<b>Source Document Reference</b>
NMR Calculation	S1.2	NMR July 2015.xls	AR20693596
Price Development and Compliance Calculations	S1.2 & S1.4	NMR July 2015.xls	AR20693596
Customer Impacts	S1.5	Customer Impacts July 2015.xls	AR20703910
Transmission & Distribution Loss Factors	S1.2.1.1	Loss Factors 2015-16 Tab 'Summary'	AR20693427