



AURORA ENERGY

**2016 STANDING OFFER DETERMINATION
PRICING PROPOSAL - PERIOD 1**

1 JULY 2016 – 30 JUNE 2017

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1. Introduction

The first period of the 2016 Standing Offer Determination (the Determination) has resulted in an overall price increase to all Tasmanian Standing Offer customers of 3.43% from 1 July 2016.

This is primarily driven by an increase in wholesale electricity allowance (contributing 4.78%), increased Renewable Energy Certificate (REC) costs and market charge allowances (contributing 1.12%) and an increase in loss factor and load schedule adjustments (contributing 1.12%). These increases are partially offset by a decrease in network charges (contributing 2.84%) and retail charges (contributing 0.75%).

Chart 1 illustrates the makeup of the Notional Maximum Revenue (NMR) underlying this proposal for Period 1 of the 2016 Standing Offer Determination.

Chart 1 – Notional Maximum Revenue (NMR) Cost Stack for 1 July 2016

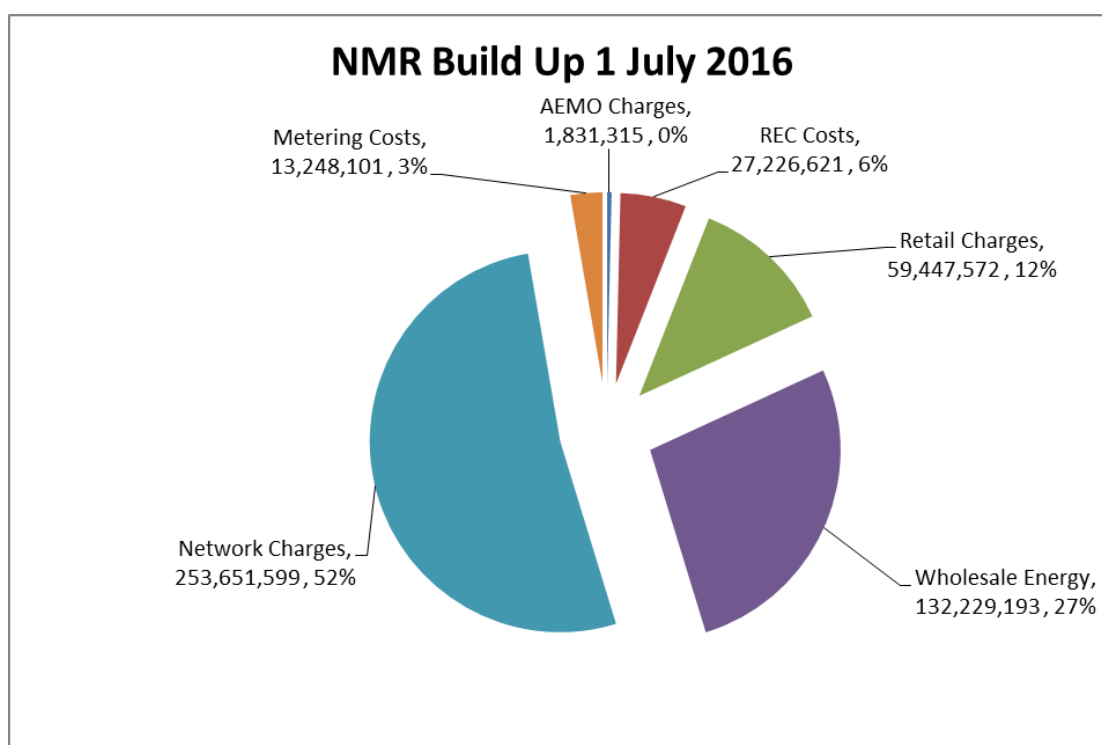


Table 1 below summarises the outcomes in terms of the 2016 Standing Offer Determination NMR for each of the variables, and indicates in which section of this Submission the relevant calculations are considered.

Table 1 – Standing Offer Cost Element Values

Cost Element	Value	Submission Reference
R _y	\$33,151,299	S2.1
WEC _y	\$132,229,193	S2.2
NC _y	\$253,651,599	S2.3
M _y	\$13,248,101	S2.4
AEMO _y	\$1,831,315	S2.5
RET _y	\$27,226,621	S2.6
CF _y	Nil	S2.7
K _y	Nil	-
A _y	Nil	-
Margin _y	5.70%	From Determination
NMR	\$487,634,401	

2. Calculation of NMR

In calculating the NMR for the 2016 Standing Offer Determination the following formula is to be applied:

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

where:

NMR_y is the notional maximum revenue that the retailer can receive from the notional tariff base

R_y represents the cost to serve for the notional tariff base

WEC_y represents wholesale electricity costs for the notional tariff base

NC_y represents network charges for the notional tariff base

M_y represents metering costs for the notional tariff base

AEMO_y represents market participant fees and ancillary services for the notional tariff base

RET_y represents the cost of complying with the Australian Government's mandatory renewable energy schemes for the notional tariff base

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

A_y represents adjustments calculated in accordance with a methodology 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

Margin_y is 5.70% (as per the specification of the 2016 Standing Offer Determination for margin in Period 1 of 1.057)

2.1 Calculation of Ry

The below formula is used to calculate Ry:

$$[\text{Cost to Serve} \times \text{Prescribed Inflationary Factor} \times \text{forecast number of customers}]$$

Table 2 – Ry Calculation

Parameter	Value	Source
Cost to Serve	\$138.45	Determination – Table 2 Period 1
Prescribed Inflationary Factor	1.000	Tasmanian Economic Regulator
Forecast Customer Numbers	239,446	Spreadsheet - NMR and Retail Tariffs 2016-17

The calculation of Ry is therefore:

$$[239,446 \times \$138.45 \times 1.000] = \$33,151,299$$

2.2 Calculation of WECy

The below formula is used to calculate WECy:

$$[\text{Forecast load} \times \text{Distribution Loss Factor} \times \text{Transmission Loss Factor} \times \text{Energy Price}]$$

Table 3 – WECy Calculation

Parameter	Value	Source
Forecast Load	2,008.39 GWh	Spreadsheet - NMR and Retail Tariffs 2016-17
Distribution Loss Factor	1.0511	Spreadsheet – Loss Factors 2016-17
Transmission Loss Factor	1.0119	Spreadsheet – Loss Factors 2016-17
Energy Price	6.1901 c/kWh	Tasmanian Economic Regulator

The Transmission and Distribution Loss Factors quoted above are based on the 2016-17 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 spreadsheet 'Loss Factors 2016-17.xls' which accompanies this Proposal.

The calculation of WECy is therefore:

$$[2,008.39 \times 1,000,000 \times 1.0511 \times 1.0119 \times 6.1901 / 100] = \$132,229,193$$

2.3 Calculation of NC_y

NC_y is calculated by applying the AER approved network tariffs for the 2016-17 regulatory year, to the forecast notional tariff base loads.

The value of NC_y in Period 1 of the 2016 Standing Offer Determination is **\$253,651,599**.

2.4 Calculation of M_y

M_y is calculated by applying the AER approved metering costs for the 2016-17 regulatory year, to the forecast notional tariff base loads.

The value of M_y in Period 1 of the 2016 Standing Offer Determination is **\$13,248,101**.

2.5 Calculation of AEMO_y

The value of AEMO_y in Period 1 of the 2016 Standing Offer Determination has been forecast by applying the AEMO 2016-17 market charges plus the forecast ancillary charges rate multiplied by the forecast Period 1 load. By applying this calculation the value of AEMO_y for Period 1 is **\$1,831,315**.

2.6 Calculation of RET_y

The value of RET_y in Period 1 of the 2016 Standing Offer Determination has been forecast by applying the Clean Energy Regulator's binding 2016 Renewable Power Percentage (RPP) and Small-scale Technology Percentage (STP) and the non-binding RPP and STP percentages for 2017 to the forecast load for Period. Subsequently, forecast LGC and STC prices are applied to calculate the value of RET_y, which for Period 1 is **\$27,226,621**.

2.7 Calculation of CF_y

The initial value of CF_y is **\$4,074,211** due to an overall under-recovery of RET_y charges and an overall over-recovery of AEMO_y from Periods 2 & 3 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 2016'.

Aurora Energy will forgo the full amount of this under-recovery in the total NMR to be recovered in Period 1 of the 2016 Standing Offer Determination.

Therefore, the total CF_y final value is **Nil**.

2.8 Average Price Change

As described in section 2.7, Aurora Energy will not seek to recover the total allowable NMR. As such, Aurora Energy will under recover the full NMR by **\$4,074,211**. This will result in an average price increase of **3.43%**.

These calculations are located in the spread sheet 'NMR and Retail Tariffs 2016-17.xls' under the tab 'Retail Prices'.

2.9 2016-17 NMR including foregone REC under-recoveries

Taking into account the amount of Period 3 REC under-recoveries to be foregone, the total NMR for Period 1 of the 2016 Standing Offer Determination is shown below:

Table 4 – 2016-17 NMR

Cost Element	Value
R _y	\$33,151,299
WEC _y	\$132,229,193
NC _y	\$253,651,599
M _y	\$13,248,101
AEMO _y	\$1,831,315
RET _y	\$27,226,621
CF _y	Nil
K _y	Nil
A _y	Nil
Margin _y	\$26,296,273
NMR	\$487,634,401

3. New Standing Offer Time of Use Tariffs (ToU)

As per Aurora Energy's Standing Offer Price Strategy, two new tariffs are proposed for inclusion in the Tariff Schedule from the commencement of Period 1 of the 2016 Determination.

The two new tariffs proposed are:

- Residential ToU Tariff 93; and,
- Business ToU Tariff 94.

In the Regulator's Standing Offer Price Approval Process Guideline (Guideline) for the 2016 Determination, ten assessment criteria for new tariff proposals to meet are outlined. Aurora Energy has prepared a guiding document to outline where it has met each of the ten assessment criteria. This is provided in '*Guide on compliance of proposed Standing Offer Time-of-Use tariffs with Price Approval Guideline 5.1(b)(3)*'.

In summary, Aurora Energy notes its following responses to the criteria:

- Aurora Energy has prepared the two proposed tariffs in line with the same methodology applied to all standing offer tariffs;
- The Residential ToU tariff is based on TasNetwork's Residential Low Voltage Time of Use (TAS93) and the Business ToU tariff is based on TasNetwork's Business Low Voltage Time of Use (TAS94), both outlined in TasNetworks *Network Tariff Application and Price Guide 2016-17*;
- The terms and conditions proposed by TasNetworks for TAS93 and TAS94 have been adopted for two new tariffs with minor amendments to present them in clear and understandable terms;
- It is Aurora Energy's view that both tariffs are in the long term interests of an efficient and competitive framework that is evolving in response to market reforms; and
- Based on feedback at the 23 March 2016 consultation forum and submissions to the Standing Offer Price Strategy, it is clear there is a strong need for ToU tariffs to support the development of both the residential and business customer segments of the Tasmanian electricity market.

Aurora Energy further notes that as these are new tariff proposals there are no typical ToU tariff customers. Therefore, customer impacts have been calculated for customer segments that are likely to seek out the Standing Offer ToU tariffs for residential or business purposes.

The ToU customer impacts are detailed further below in Section 6.5

4. Changes to the Tariff Schedule

4.1 Abolish Obsolete Tariffs

As per Aurora Energy's Standing Offer Price Strategy, from 1 July 2016 Aurora Energy seeks to have the following tariffs removed from the Standing Offer price schedule:

- Irrigation - Tariff 73/74
- Industrial low voltage demand – Tariff 83
- Industrial low voltage demand – Tariff 86

There are no longer any customers on these tariffs and they are deemed obsolete on the 2015/16 Tariff Schedule. As there are no benefits to customers by having Aurora Energy maintain an obsolete tariff, Aurora Energy is seeking to abolish these tariffs.

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.

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.

Tariff 86 has also been obsolete since 31 December 2004, since that date no new customers have been connected to this tariff. Aurora Energy can confirm that there are no longer any customers being supplied under this tariff.

4.2 Consolidate Tariffs 41 and 42

As per Aurora Energy's Standing Offer Price Strategy, Aurora Energy proposes to consolidate Tariffs 41 and 42 as these tariffs are priced at the same rate and both align to the same Network Tariff (TAS41).

This proposal would take effect through the transition of all Tariff 42 consumers onto Tariff 41 and result in the abolishment of Tariff 42 from the commencement of Period 1. The consumer impacts of this change are limited to a change in the tariff name that customers currently on Tariff 42 view on their bill.

To support this change, Aurora Energy proposes to proactively communicate to all impacted customers with prominent messaging on the Tariff Schedule and through other marketing tools such as pricing pamphlets and the Aurora Energy website.

Aurora Energy proposes to name the combined tariff *Heating & Hot Water – Tariff 41*.

It is noted that the Network terms and conditions for the underlying network tariff (TAS41) have been updated to align with standards and parameters for hot water and heating systems. As such, the combination of this tariff is accompanied by a revised set of terms and conditions to reflect the updated network terms and conditions.

Aurora Energy's load forecasting methodology has been updated to reflect the combination of Tariff 41 and 42.

4.3 Tariff 34 to be made obsolete

As per Aurora Energy's Standing Offer Price Strategy, Aurora Energy proposes to make obsolete Tariff 34 - Nursing Homes Light and Power from Period 1 of the commencement of Period 1

The underlying Network Tariff for Tariff 34, TAS34, is an obsolete Network Tariff, meaning no new connections are allowed on this Network Tariff. There are a small number of consumers still connected to Tariff 34. Aurora Energy would not seek to abolish Tariff 34 until such time that all consumers have transitioned to an alternate electricity tariff.

Until there are zero customers on Tariff 34 its listing will remain on the Aurora Energy Standing Offer tariff schedule with full details of charges and terms and conditions. Further, a new sentence will be added to the Tariff Schedule to note the changed status of Tariff 34 and that electricity supply from Tariff 34 is no longer available.

4.4 Changes to terms and conditions

As per Aurora Energy's Standing Offer Price Strategy, Aurora Energy proposes to update the terms and conditions listed against tariffs in the Tariff Schedule.

Since the 2013 Determination, there have been changes to some of the underlying network tariffs terms and conditions. To keep uniformity with these obligations, Aurora Energy proposes the following changes:

- Tariff 31 – add a new condition to clarify this tariff is for low voltage installations only.
- Tariff 22 – add a new condition to clarify this tariff is for low voltage installations only.
- Tariff 62 – the timeframes for when energy is provided to these installations has been altered in the underlying network tariff. As such, it is proposed to delete condition (a) and replace it with: "Energy to installations connected on

this tariff will only be available between 22:00 hours and 07:00 hours the following day.”

4.5 Presentation of tariffs: updated tariff terminology

As per Aurora Energy’s Standing Offer Price Strategy, Aurora Energy proposes to update some of the terminology in the Tariff Schedule to bring it into compliance with the Australian Energy Regulator’s (AER) Retail Price Information Guideline (Guideline).

The main change is to the term ‘Fixed Charge’ to ‘Daily Supply Charge’. This change is proposed for each tariff which lists a fixed charge. The change also affects the paragraph headed, ‘Fixed Charges’. There is only one other change to meet the AER Guideline, this is to change the term ‘consumption’ to ‘usage’ under the terms and conditions of Tariff 85.

Aurora Energy notes the intent of the AER Guideline is to ensure price related information is easy to understand and comparable across multiple retailers and mediums. Further, by altering the above terms in the Tariff Schedule to meet the AER Guideline, Aurora Energy can achieve compliance with both State and Federal regulatory frameworks.

5. Proposed Prices for Period 1

The Table below shows the proposed July 2016 – June 2017 prices, exclusive of GST:

Table 5 – Proposed Period 1 Prices, exclusive of GST

Retail Tariff	Fixed Charges c/day	Energy Step 1 c/kWh	Energy Step 2 c/kWh	Energy Step 3 c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Demand \$/kW or kVa
22	90.801	32.320	23.726					
31	84.052	23.695						
34	127.318	29.971	23.302	19.606				
36C	81.721							
41	16.279	14.290						
43	16.279	14.290						
61	20.629	11.505						
62	20.629	10.836						
75	255.924				28.649	22.368	13.977	
82	284.680	14.625						185.911
85	279.218	12.875			12.875	12.875	12.875	106.537
93	93.655				28.461		13.252	
94	98.355				25.842	18.317	10.495	

The following Table shows the percentage change over the July 2015 prices:

Table 6 – Annual Percentage Change in Retail Prices

Retail Tariff	Fixed Charges c/day	Energy Step 1 c/kWh	Energy Step 2 c/kWh	Energy Step 3 c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Demand \$/kW or kVa
22	3.43%	3.43%	3.43%					
31	3.43%	3.43%						
34	3.43%	3.43%	3.43%	3.43%				
36C	16.36% ¹							
41	3.43%	3.43%						
43	3.43%	3.43%						
61	3.43%	3.43%						
62	3.43%	3.43%						
75	3.43%				3.43%	3.43%	3.43%	
82	3.43%	3.43%						3.43%
85	3.43%	3.43%			3.43%	3.43%	3.43%	3.43%
93 ²	N/A				N/A		N/A	
94 ²	N/A				N/A	N/A	N/A	

Note:

1. Reflects reduction of discount from 20% to 10%.
2. New tariffs.

Final prices including GST, submitted for approval, are:

Table 7 – Proposed Period 1 Prices, inclusive of GST

Retail Tariff	Fixed Charges c/day	Energy Step 1 c/kWh	Energy Step 2 c/kWh	Energy Step 3 c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Demand \$/kW or kVa
22	99.881	35.552	26.098					
31	92.457	26.065						
34	140.050	32.968	25.632	21.566				
36C	89.893							
41	17.907	15.719						
43	17.907	15.719						
61	22.692	12.655						
62	22.692	11.920						
75	281.517				31.514	24.604	15.374	
82	313.148	16.088						204.502
85	307.140	14.162			14.162	14.162	14.162	117.191
93	103.021				31.307		14.577	
94	108.191				28.426	20.149	11.545	

6. Customer Impacts

All standing offer customers will experience a price increase of 3.43% from the prices set in July 2015.

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 Standing Offer Price Strategy (May 2016) i.e. any increases/decreases have been applied equally to fixed and variable components of each tariff.

As outlined in the Standing Offer Price Strategy, the proposed 3.43% 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 and is shown on a GST inclusive basis.

6.1 Residential quarterly cost impacts.

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

Table 8 – Quarterly Bill Impacts, Residential Customers

Tariff	Low Consumption	Medium Consumption	High Consumption
Tariff 31	\$4.71	\$9.06	\$15.39
Tariff 31 & 41	\$9.48	\$14.76	\$22.15
Tariff 31, 41 & 61	\$12.71	\$18.83	\$28.68

6.2 Small Business quarterly cost impacts

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

Table 9 – Quarterly Bill Impacts, Small Business Customers

Tariff	Low Consumption	Medium Consumption	High Consumption
Tariff 22	\$6.98	\$14.11	\$29.17
Tariff 22 & 61	\$16.07	\$46.06	\$103.80
Tariff 22 & 43	\$11.65	\$32.33	\$108.35
Tariff 22, 43 & 61	\$32.60	\$87.20	\$160.71

6.3 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 3.43%, the cost increase for each of these customers will be 3.43%.

6.4 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 increased at the same rate of 3.43%, the cost increase for each of these customers will be 3.43%.

6.5 New Standing Offer Time-of-Use tariffs

As outlined above, the primary driver of the proposed ToU tariffs is to ensure Tasmanian energy consumers are provided with the opportunity to reduce their electricity bills through gaining a greater level of control of their electricity consumption. The inclusion of ToU tariffs in the Standing Offer also ensures that consumers are afforded the corresponding level of consumer protection.

Whether individual customers benefit from transferring to the proposed residential and small business ToU Tariffs 93 and 94 will depend on a range of factors, including:

- the annual consumption of the customer and the profile of this consumption across the day;
- the existing tariff of the customer;
- whether the customer has a solar installation and, if so, the size of the installation; and
- the cost of changing over metering infrastructure to access the ToU products.

The assessment of customer impacts therefore relies on certain assumptions and should be considered indicatively only. The customer impacts of customers moving to ToU tariffs provided in the *Guide on compliance of proposed Standing Offer Time-of-Use tariffs with Price Approval Guideline 5.1(b)(3)*.

7. Revenue Check

The proposed prices, excluding GST, when applied to the Period 1 forecast load and customer numbers, produce total revenue within the Notional Maximum Revenue as calculated in Section 2.9 above. The detailed calculations are given in the spreadsheet 'NMR and Retail Tariffs 2016-17.xls' under the tab 'Retail Prices'. Table 9 below summarises the revenue outcomes.

Table 10 – Proposed Revenue By Tariff (excl GST)

Tariff	Fixed Charges	Energy Step 1	Energy Step 2	Energy Step 3	Energy Peak	Energy Shoulder	Energy OffPeak	Demand Step 1	Total Revenue
22	7,994,377	12,136,624	61,493,685						81,624,686
31	63,007,533	179,729,311							242,736,844
34	12,547	13,058	7,113	57,987					90,705
36C	771,655								771,655
41	11,168,264	114,569,442							125,737,706
43	78,015	1,077,522							1,155,537
61	1,556,040	4,698,416							6,254,456
62	174,684	618,241							792,925
75	2,225,084				11,706,071	576,273	3,503,690		18,011,118
82	126,768	1,167,313						4,254,752	5,548,833
85	2,038	7,260						41,758	51,056
93	922,502				1,641,274		1,623,943		4,187,719
94	193,759				320,124	87,272	70,006		671,161
Total Revenue:									487,634,401
Allowable Notional Maximum Revenue:									491,708,612

8. Additional Charges

The Additional Charges applying from 1 July 2016 are shown in table 10:

Table 11 – Additional Charges

Additional Charges	2016-17 Price
Late payment fee	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).
Overdue accounts	Overdue accounts for Standard Retail Contract customers may be charged interest in accordance with the 2016 Standing Offer Price Determination

9. Document References

Topic	Proposal Section	Source Document Name	Source Document Reference
NMR Calculation	S2	NMR and Retail Tariffs 2016-17.xls	AR20823827
Price Development and Compliance Calculations	S2, S5	NMR and Retail Tariffs 2016-17.xls	AR20823827
Customer Impacts	S6	Customer Impacts 1 July 2016.xls	AR20830301
Transmission & Distribution Loss Factors	S2.2	Loss Factors 2016-17	AR20828153
Criteria for approval of new tariffs	S3	Standing Offer Time-of-Use Tariffs - Guidance on Compliance with 5.1(b)(3)	AR20828393