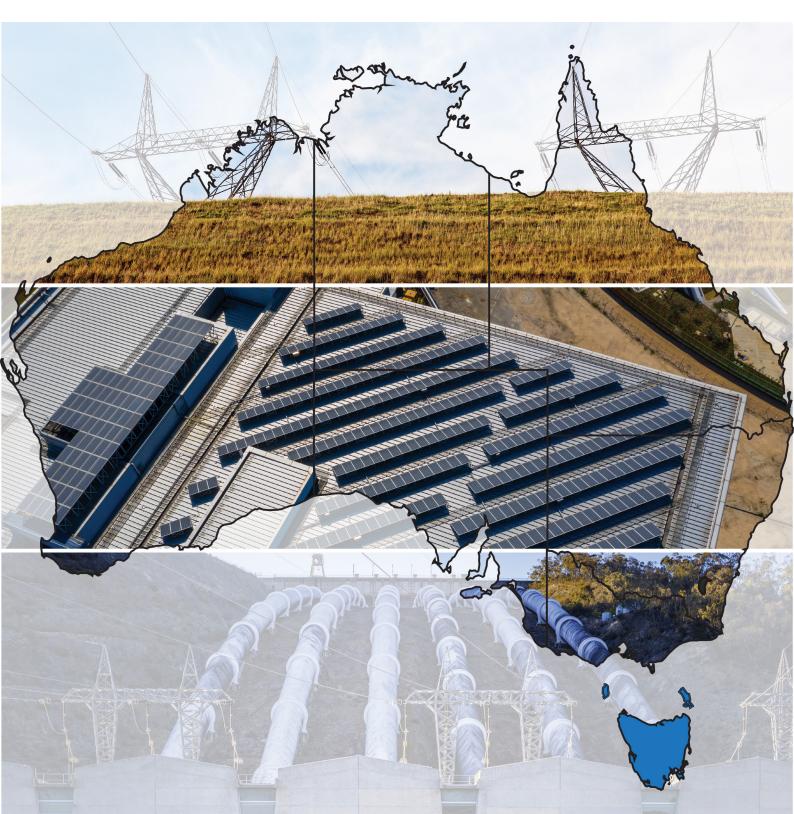
Tasmania Energy Prices July 2019

An update report on the Tasmanian Tariff-Tracking Project



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Disclaimer

The energy offers, tariffs and bill calculations presented in this report and associated workbooks should be used as a general guide only and should not be relied upon. The workbooks are not an appropriate substitute for obtaining an offer from an energy retailer. The information presented in this report and the workbooks is not provided as financial advice. While we have taken great care to ensure accuracy of the information provided in this report and the workbooks, they are suitable for use only as a research and advocacy tool. We do not accept any legal responsibility for errors or inaccuracies. The St Vincent de Paul Society and Alviss Consulting Pty Ltd do not accept liability for any action taken based on the information provided in this report or the associated workbooks or for any loss, economic or otherwise, suffered as a result of reliance on the information presented. If you would like to obtain information about energy offers available to you as a customer, go to Australian Energy Regulator's "Energy Made Easy" website or contact the energy retailers directly.

Acknowledgments

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The views expressed in this document do not necessarily reflect the views of Energy Consumers Australia.

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The Tasmanian Tariff-Tracking Project

This project has tracked electricity tariffs in Tasmania from July 2009 to July 2019, and developed a spreadsheet-based tool that allows consumer advocates to build on the initial analysis and continue to track changes as they occur.

We have developed four workbooks that allow the user to enter consumption levels and analyse household bills for electricity offers from July 2009 to July 2019, as well as current published gas and electricity market offers. A more recent addition to the Tariff-Tracking project is market offers available to new solar customers. The workbook allows users to calculate annual bills based on retailers' rates, feed in tariffs offered and additional discounts. Again, the user can enter consumption level as well as choosing to run the bill calculation based on 1.5 kW or 3 kW solar systems.

Workbook 1: Regulated and market electricity offers July 2009 - July 2019

Workbook 2: Pay as you go electricity offers July 2009 - July 2019

Workbook 3: Gas market offers post July 2013 - July 2019

Workbook 4: Solar offers July 2016 - July 2019

The jurisdictional update reports will be followed by a NEM comparison report that discusses market issues and customer impacts in more detail as well as making recommendations.

All workbooks and reports can be accessed at the St Vincent de Paul Society's website: www.vinnies.org.au/energy

1. INTRODUCTION

Tasmania implemented the National Energy Customer Framework (NECF) on 1 July 2012 and the Australian Energy Regulator (AER) thus assumed jurisdiction over customer protections. On 1 July 2014, Tasmania introduced full retail competition. The electricity retail market is thus open for new entrants but 1St Energy is the only new entrant in the residential electricity retail market to date. Aurora Energy's Pay as you go (prepayment meter) product is another deregulated electricity offer available to residential consumers. For all other metering types, Aurora Energy continues to offer the regulated rates.

The average gas consumption (40,000 MJ per annum) for Tasmanian households is lower than in Victoria and the ACT but greater than in South Australia, NSW and Queensland. However, relatively few Tasmanian households are connected to reticulated gas (approximately 12,800 households). Gas retail prices are not regulated in Tasmania and there are currently two retailers offering gas to residential customers: Aurora Energy and Tas Gas (the latter having the greater market share).

Assumptions

Consistent with our previous reports, we have assumed a typical household consumption of 9,060 kWh per annum for all-electric households, 40,000 MJ per annum for gas, and 6,400 kWh per annum in electricity consumption for dual fuel households on a single rate tariff for the analysis presented in this report.² In 2016, Aurora Energy introduced a new two-part time of use tariff (Tariff 93) that attracts a peak rate on weekday mornings from 7am to 10am and weekday evenings from 4pm to 9pm. Consumption outside these times attract the off-peak rate. For Tariff 93 we have used the same consumption split as that used for tariff 41. Table 1 shows the consumption splits used the analysis presented in this report.³

TABLE 1 | Assumptions: consumption splits for standard tariffs4

Tariff type	Tariff combination	Consumption split (%)
Hot water/space heating (41)	31 + 41	60:40
Hot water/space heating (41) with off peak boost (61)	31 + 41 + 61	40:30:30
Time of Use (T93)	93	60:40

¹ OTTER, Energy in Tasmania, Performance Report 2017-18, December 2017, 31 and 41

² OTTER states that a typical Tasmanian customer uses around 9,055 kWh per annum. Otter, Comparison of 2013 Australian Standing Offer Energy Prices, April 2013 (page 19 for gas and page 10 for electricity). To estimate the combined energy bill for dual fuel households we have assumed that they use approximately 30% less electricity compared to all-electric households. Note that the Tariff-Tracking tool (the workbooks) is designed so users can insert their own consumption levels.

³ These allocations are based on analysis presented in OTTER, Information Paper, Typical Electricity Customers, September 2010. Note that OTTER have since adjusted these figures but as the purpose of the Tariff-Tracking project is to track changes to prices over time, we base the analysis on the original assumptions used for consumption levels and proportions. Note that the Aurora PAYG product is currently in the process of being replaced by PAYG+ which is based on the regulated TOU tariff (T93).

⁴ Tariff 31 is the general light and power tariff (single rate tariff) that can also be applied in combination with off peak tariffs. In relation to the Time of Use tariff (T93), OTTER has not published consumption splits to date and we are therefore basing this split on the T31/T41 combination. Note that TasNetworks has advised us that based on more recent billing data they use a 46:54 split for tariffs 31/41, a 44:42:14 for tariffs 31/41/61 and 32:68 for tariff 93. We therefore reiterate that the purpose of the Tariff-Tracker is to analyse changes to prices over time and that customers' experience may be different due to changes in overall consumption and/or splits. The workbooks accompanying this report, however, allow users to enter their preferred consumption levels and tariff splits.

For customers on Aurora Energy's seasonally priced PAYG product we have assumed an annual consumption of 9,060 kWh with 40% of consumption allocated to summer rates and 60% to winter.⁵ Table 2 below shows the time of week and day usage assumptions implemented for the analysis presented in this report.6

TABLE 2 | Assumptions: TOU consumption proportions for PAYG tariffs

Time of week/day	Summer	Winter
Weekday morning	16%	15%
Weekday arvo	17%	14%
Weekday evening	23%	18%
Weekday night	15%	24%
Weekend morning	6%	5%
Weekend arvo	8%	7%
Weekend evening	9%	7%
Weekend night	6%	10%
Sum	100%	100%

⁵ OTTER states that the summer/winter split varies between the PAYG tariff types. For medium consumption households the seasonal split is 40:60 for customers on the Off-peak or Hydroheat tariff, while customers on the standard tariff have an even consumption throughout the year (50:50). For the purpose of this analysis, we have assumed a 40:60 split for all PAYG tariff types but note that this assumption can be varied in the Tariff-Tracking tool (workbook 2).

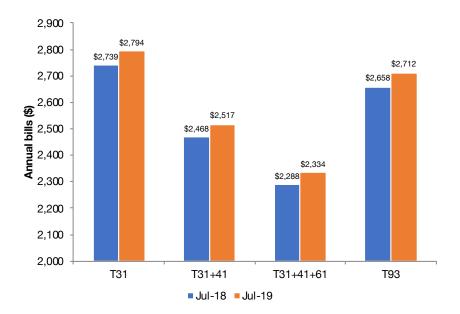
⁶ Based on figures presented in OTTER, 2013 Aurora Pay As You Go price comparison report, August 2013. Note that our summer evening proportion is 1% less than that used by OTTER in order to ensure that it adds up to 100%.

2. ELECTRICITY AND GAS PRICE CHANGES FROM JULY 2018 TO JULY 2019

In terms of general trends, the tariff analysis has found that:

- Compared to last year (July 2018), annual electricity bills have increased for average consumption households for tariffs 31 and 93. This year the annual bill for households on Tariff 31 consuming 9,060 kWh/annum will be approximately \$2,795.
 See chart 1 below.
- Tasmanian electricity retail prices taking effect in July 2019 produce annual bills that are approximately \$45 \$55 (or 2%) more than they were last year (July 2018). See chart 2 below.
- The annual cost of electricity for average consumption households on Aurora Energy's pay as you go (PAYG) time of use tariffs have also increased by approximately \$50 (or 2%). See charts 3 and 4 below.
- In 2019, both Aurora Energy and Tas Gas increased their gas prices. Aurora
 Energy's gas customers have received an increase of approximately \$10 to their
 annual bill (based on an annual consumption of 40,000 MJ), whereas Tas Gas
 customers received an increase of around \$45. See chart 5 below

CHART 1 | Regulated electricity prices as of July 2018 and July 2019 for tariffs 31, 31/41, 31/41/61 and 93, annual bills for households consuming 9,060 kWh per annum (incl. GST).⁷



⁷ See Table 1 for a breakdown of the consumption splits used for these calculations.

CHART 2 | Changes to the annual bill from July 2018 to July 2019, regulated electricity prices for households consuming 9,060 kWh per annum on Tariffs 31, 31/41, 31/41/61 and 93.

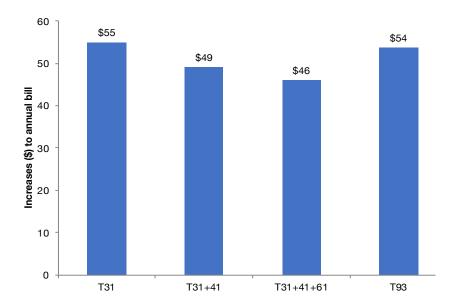
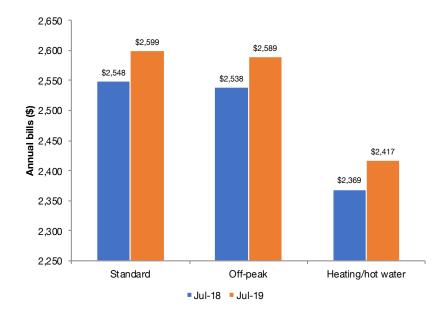


CHART 3 | Electricity prices as of July 2018 and July 2019, pay as you go (PAYG) market offers, annual bills for households consuming 9,060 kWh per annum (incl. GST).8



⁸ See Table 2 for a breakdown of the consumption splits used for these calculations. Note that the Aurora PAYG product is currently in the process of being replaced by PAYG+ which is based on the regulated TOU tariff (T93).

CHART 4 | Increases to the annual bill from July 2018 to July 2019, pay as you go (PAYG) market offers for households consuming 9,060 kWh per annum.

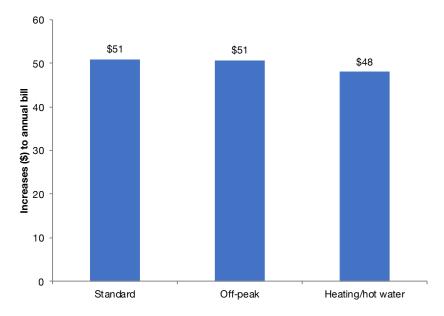
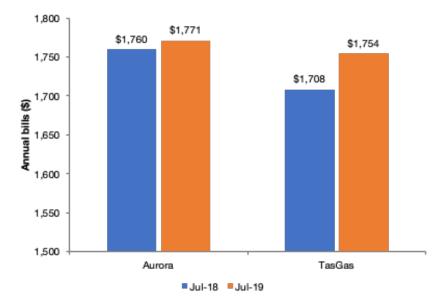


CHART 5 | Gas prices as of July 2018 and July 2019, as annual bills, 40,000 MJ per annum (incl. GST).



3. REGULATED AND MARKET OFFERS POST JULY 2019

Although Tasmania introduced full retail competition in July 2014, only one retailer (1st Energy) has entered the residential electricity market. Residential electricity customers can currently choose between Aurora Energy's regulated standard rates, 1st Energy's market offer and Aurora's PAYG products.9

There are three main tariff types for the standard rates: the flat rate (tariff 31), flat rate combined with a hot water tariff (tariff 41) and flat rate combined with tariff 41 as well as an afternoon boost tariff (tariff 61). 10 The time of use (TOU) tariff (T93) was introduced in July 2016.

3.1 Electricity: Regulated and market offers post July 2019

Chart 6 below shows that households using 9,060 kWh per annum on the regulated offer will have an annual electricity bill of between \$2,335 and \$2,795 (depending on tariff type). Customers on 1st Energy's market offer would have an annual electricity bill that ranged between \$2,240 and \$2,670 (depending on tariff type).¹¹ It should be noted, however, that 1St Energy issues bills monthly and customers unable to pay their bills by the due date will forego the pay on time discount. 1st Energy's prices exclusive of pay on time discounts are similar to that of Aurora.

CHART 6 | Electricity offers (regulated offer and market offer inclusive of pay on time discount) as annual bills, post July 2019, 9,060 kWh per annum (incl. GST).12

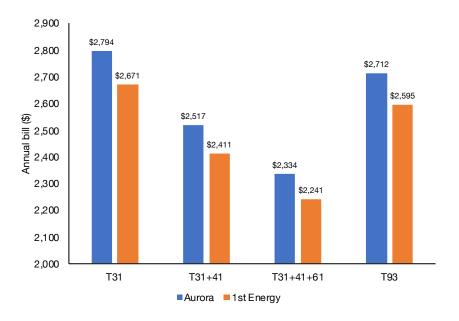


Chart 7 below shows that typical consumption households on Aurora Energy's PAYG tariffs will have an annual electricity bill of between \$2,415 and \$2,600, and that the Heating and Hot Water tariff (formerly known as Hydroheat) is the PAYG product that produces the lowest annual bill for households with typical consumption patterns.

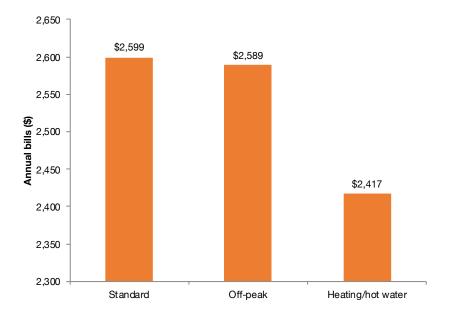
⁹ Approximately 10% of the residential electricity customers are on the PAYG product at http://www.economicregulator.tas.gov.au/Documents/Energy%20in%20Tasmania%202016-17%20Report.pdf.

¹⁰ See Aurora's price fact sheets available at https://www.auroraenergy.com.au/your-home/electricity/rates-andcharges/standard-electricity-rates-and-charges.

^{11 1}st Energy's annual bill calculations are inclusive of a pay on time discount.

¹² See Table 1 for a breakdown of the consumption splits used for these calculations.

CHART 7 | PAYG electricity market offers as annual bills, post July 2019, 9,060 kWh per annum (incl. GST).¹³

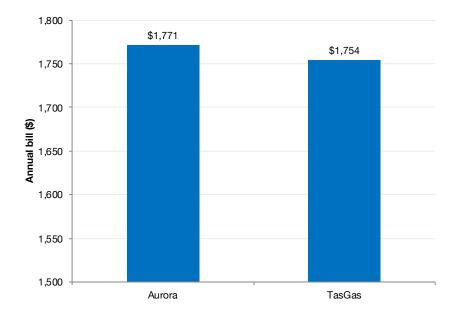


3.2 Gas market offers post July 2019

There are no regulated gas offers in Tasmania and only Aurora Energy and Tas Gas Retail currently have gas market offers for residential consumers. As of 2017, Aurora Energy had a gas market share of approximately 32% and Tas Gas held the remaining 68%.¹⁴

Chart 8 below shows that an Aurora Energy customer with average gas consumption will pay approximately \$1,770 per annum while a Tas Gas customer with the same consumption level will pay approximately \$1,750 per annum (approximately \$20 difference).

CHART 8 | Gas offers post July 2019, as annual bills, 40,000 MJ per annum (incl. GST).



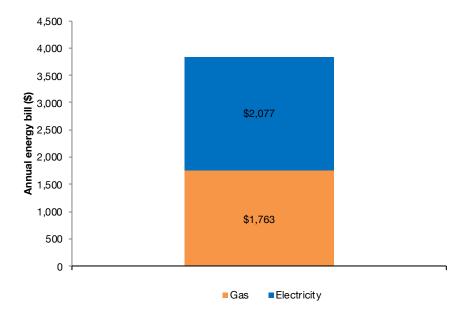
¹³ See Table 2 for a breakdown of the consumption splits used for these calculations.

¹⁴ OTTER, Energy in Tasmania, Performance Report 2017-18, December 2017, 5

3.3 Energy costs for dual fuel households post July 2019

Households with reticulated gas will typically have higher energy bills compared to all-electric households. 15 Chart 9 below shows that a dual fuel household consuming 6,400 kWh of electricity per annum (approximately 30% less than an average all-electric household) and 40,000 MJ of gas will have an annual energy bill of \$3,840.

CHART 9 | Annual bill for dual fuel households post July 2019, 6,400 kWh (T31) and 40,000 MJ (incl. GST).16



¹⁵ It should be noted, however, that many all-electric households have other heating expenses such as firewood or liquefied petroleum gas (LPG).

¹⁶ Annual gas bill calculation is based on the average of Aurora Energy and Tas Gas' rates and annual electricity bill is based on the regulated rate.

4. SUPPLY CHARGES

4.1 Electricity supply charges

The supply charge is a fixed daily charge that is paid in addition to the consumption charges for electricity used. In Tasmania the supply charge for residential electricity decreased by 13% in July 2014 (both the regulated rates and Aurora Energy's PAYG offer). Since July 2015, however, the supply charges have been increasing by 2-3% each year, except in 2017 where it remained relatively stable. As of July 2019, customers on the flat rate (Tariff 31) pay approximately \$350 per annum in fixed supply charges. 17 Chart 10 below shows the changes to the daily supply charges for regulated electricity rates from 2013 to 2019.

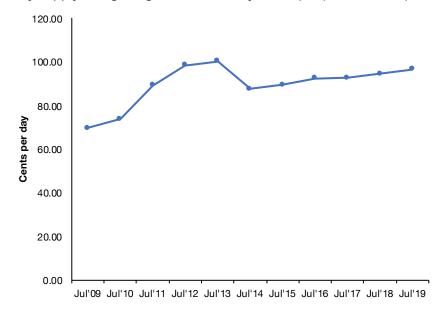
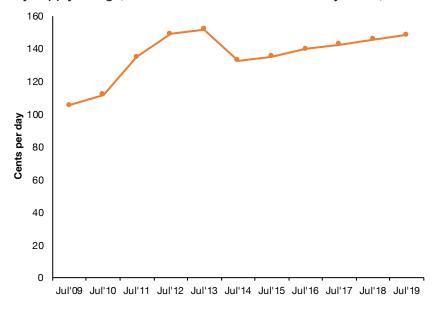


CHART 10 Daily supply charge, regulated electricity offers (T31), 2009-2019 (incl. GST).

Customers on Aurora Energy's PAYG offers, however, pay around \$540 per annum in fixed charges. Customers on the standard PAYG rate pay close to \$190 more in fixed charges per annum than customers on the standard regulated rate. Chart 11 below shows the changes to the daily supply charges for the standard PAYG offer from July 2009 to July 2019.

¹⁷ Note that households on combination tariffs, such as Tariff 31 and Tariff 41, have higher supply charges than households on Tariff 31 only.

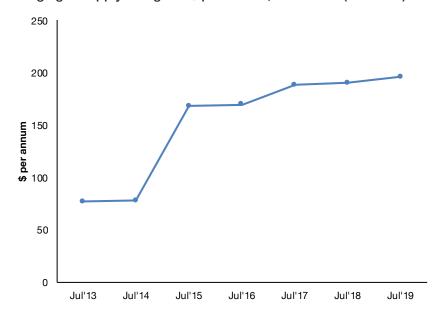
CHART 11 | Daily supply charge, Aurora's Standard PAYG electricity offers, 2009-19 (incl. GST).



4.2 Gas supply charges

The gas supply charge of 54 cents/day (depending on the retailer), is significantly lower than the electricity supply charges but it has increased since last year. Tasmanian households currently pay close to \$200 per annum in order to be connected to natural gas. 18 Chart 12 shows annual supply charge for gas customers from July 2013 to July 2019.

CHART 12 | Average gas supply charge as \$ per annum, 2013-2019 (incl. GST).



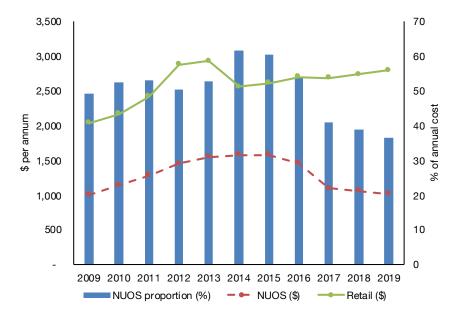
¹⁸ The annual supply charge is the average of Aurora Energy and Tas Gas' supply charges

5. NETWORK CHARGES

The Tasmanian electricity network, TasNetworks, introduces new Network Use of System (NUOS) charges in July every year. These NUOS charges are approved by the Australian Energy Regulator (AER) and comprise Transmission Use of System (TUOS) and Distribution Use of System (DUOS) as well as other costs such as jurisdictional charges.

The NUOS charges consist of both usage charges (c/kWh) and a fixed supply charge (c/day). Chart 13 below shows annual retail bills for Tariff 31 (solid line), NUOS charges as annual cost (dotted line) and NUOS as proportion of annual bill (columns). It shows that the NUOS charge and NUOS as a proportion of a bill have gone down slightly, while retail bill has increased. 19

CHART 13 | Retail bill per annum, NUOS charges and NUOS as a proportion of total bill from 2009 to 2019 (based on the regulated retail tariff, 9,060kWh per annum, GST inclusive.)



¹⁹ See Tas networks, Annual Distribution Pricing Proposal 1st July 2018 to 30th June 2019, Overview.

6. SOLAR OFFERS

There are over 30,000 small scale rooftop solar systems in Tasmania.²⁰ Approximately half of these households installed solar prior to 31 August 2013 and are currently receiving the higher transitional FIT rate.²¹ Households that have installed solar since then qualify for the regulated FIT rate. This FIT rate is reviewed on an annual basis and it currently pays 9.347 c/kWh. Retailers may offer a greater voluntary FIT rate than the regulated rate and 1st Energy currently has a Solar Bonus offer with a FIT rate of 14.347 c/kWh.

This section analyses electricity bills for Tasmanian customers with 1.5 kW and 3 kW systems installed.22

Methodology and assumptions

To calculate the annual bills for the regulated solar offers the following assumptions and methodology have been applied:

- An annual household consumption of 9,060 kWh (including both produced and imported).
- Calculations have been produced for households with 1.5 kW and 3 kW systems only.
- An annual generation capacity per kW installed of 1.185 MWh and an export rate of 47.4% for 3 kW systems and 14.9% for 1.5 kW systems.23
- Only FIT rates available to new customers have been included. The regulated FIT rate is currently 9.347 c/kWh (excl. GST).
- For tariffs with an off-peak component, we have used the same load allocations applied to the non-solar analysis above (see table 1).
- A flat annual consumption has been assumed.

The average annual bill is approximately \$2,070 for households with 3kW systems and \$2,350 for households with 1.5kW systems installed.²⁴ Charts 14 and 15 below compare annual bills for Tasmanian customers with 3kW and 1.5kW solar systems on Aurora and 1st Energy's offers. It shows that Tariff 31 customers with 3kW systems could save just over \$90 by switching to 1st Energy (chart 14). For customers with 1.5kW systems, customers may save \$15 by switching to 1st Energy (chart 15).

²⁰ Small scale is defined as systems up to 100 kW. Clean Energy Council, Clean Energy Australia Report 2019, 62 21 See Tasmanian Government, Department of State Growth, Solar Feed-In Tariff Review at www.stategrowth.tas. gov.au/ data/assets/pdf file/0015/181311/Solar Feed-In Tariff Review Final Report.pdf

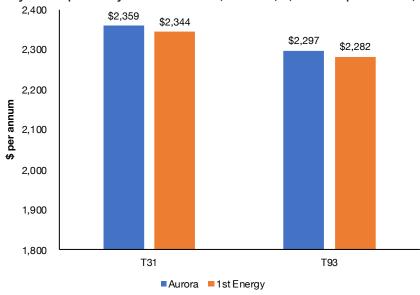
²² As the transitional FIT rate is not available to new customers, the analysis does not cover this FIT rate. 23 The 1.185 generation capacity is based on small-scale technology certificates (STC) for zone 4. The export rates are based on Melbourne and were used for the analysis presented in a report for the Alternative Technology Association (ATA) by Alviss Consulting (Alviss Consulting, Retail Offers and Market Transparency for New Solar Customers, June 2013). As the data is based on Melbourne it might assume slightly higher export rate than the Tasmanian average.

²⁴ Based on Aurora's regulated offer and 1st Energy's Solar bonus offer (Tariff 31).

CHART 14 | Annual bills including discounts and FIT credits for customers with a 3kW solar system. Electricity offers post July 2019 as annual, flat rate, 9,060kWh per annum, GST inclusive.

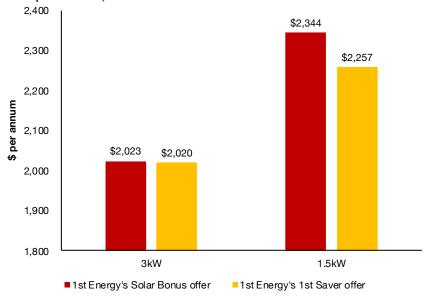


CHART 15 | Annual bills including discounts and FIT credits for customers with a 1.5kW solar system. Electricity offers post July 2019 as annual, flat rate, 9,060kWh per annum, GST inclusive.



1st Energy offers a 'Solar Bonus' product with a higher FIT rate and no additional discounts as well as a '1st Saver' product which has the lower regulated FIT rate but includes a pay on time discount. Chart 16 below compares 1st Energy's two market offers for customers with a 1.5kW and 3kW solar system. It shows that while there is almost no difference in annual bills for customers with a 3kW system, for those with a 1.5kW system, customers could save around \$90 by choosing the '1st Saver' offer with the lower regulated FIT rate.

CHART 16 | Annual bills including discounts and FIT credits for customers with a 1.5kW and 3kW solar system on 1st Energy's market offers²⁵. Electricity offers post July 2019 as annual, Tariff 31, 9,060kWh per annum, GST inclusive.



²⁵ Compares 1st Energy's Solar Bonus offer which offers a higher FIT rate, with 1st Energy's 1st Saver market offer which offer a lower FIT rate but a 5% pay-on-time discount off usage